**DRAFT NOTICE OF FINAL RULEMAKING**
**MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS**
**FIVE PERCENT PLAN RULEMAKING PROJECT**

## PREAMBLE

| **1. Sections affected** | **Rulemaking action** |
|---|---|
| Rule 200 | Amend |
| Rule 310 | Amend |
| Rule 310.01 | Amend |
| Appendix C | Amend |

**2. Statutory authority for the rulemaking:**

Authorizing statutes: A.R.S. §§ 49-474, 49-479, and 49-480

Implementing statute: A.R.S. § 49-112

**3. The effective date of the rules:**

Tentative Date of Adoption: March 26, 2008

**4. List of all previous notices appearing in the Register addressing the rulemaking:**

Notice of Rulemaking Docket Opening: 13 A.A.R. 2175, June 22, 2007

Notice of Proposed Rulemaking: 13 A.A.R. 3768, November 9, 2007

**5. The name and address of department personnel with whom persons may communicate regarding the rulemaking:**


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|---|---|
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**6. An explanation of the rule, including the agency's reasons for initiating the rulemaking:**

The Maricopa County Air Quality Department (MCAQD) is proposing revisions to Rule 200, Rule 310, Rule 310.01, and Appendix C. The MCAQD is proposing these revisions to Rules 200, 310, 310.01 and Appendix C to implement control measures and increase compliance with existing rules for the Five Percent Plan for $PM_{10}$. On June 6, 2007, the Environmental Protection Agency (EPA)

finalized its finding that the Phoenix Nonattainment Area did not attain the 24-hour $PM_{10}$ standard by the deadline mandated in the Clean Air Act (CAA), December 31, 2006. (72 FR 31183, June 6, 2007) Under Section 189(d) of the CAA, serious $PM_{10}$ nonattainment areas that fail to attain are required to submit within 12 months of the applicable attainment date, "plan revisions which provide for attainment of the $PM_{10}$ air quality standard and, from the date of such submission until attainment, for an annual reduction in $PM_{10}$ or $PM_{10}$ precursor emissions within the area of not less than 5 percent of the amount of such emissions as reported in the most recent inventory prepared for such area." In accordance with the CAA section 179(d)(3), the attainment deadline applicable to an area that misses the serious area attainment date is as soon as practicable. The region needs to submit to a Five Percent Plan for $PM_{10}$ by December 31, 2007.

**$PM_{10}$ Nonattainment Status History:**

In accordance with 1990 Clean Air Act Amendments, the Maricopa County nonattainment area was initially classified as "moderate" for $PM_{10}$ pollution. As a moderate nonattainment area, Maricopa County was required to submit to the EPA a moderate $PM_{10}$ nonattainment area plan and to show attainment of the $PM_{10}$ national ambient air quality standards (NAAQS) by December 31, 1994. Moderate $PM_{10}$ nonattainment area plans were submitted to the EPA in 1991 and 1993.

The Maricopa County moderate $PM_{10}$ nonattainment area, upon the EPA's findings, failed to attain the NAAQS by December 31, 1994. Consequently, on May 10, 1996, the EPA reclassified Maricopa County as a serious $PM_{10}$ nonattainment area. Maricopa County was then required to submit a serious $PM_{10}$ nonattainment area plan, which had to include Best Available Control Measures (BACM), measures designed to achieve the maximum degree of emissions reduction for $PM_{10}$ sources. Maricopa County had to show attainment of the $PM_{10}$ NAAQS by December 21, 2001.

Emission inventories and air quality modeling analysis of existing control measures showed that attainment could <u>not</u> be reached by December 21, 2001. A shortfall of a 16.4% reduction in $PM_{10}$ concentration was identified. The CAA allows states to request an extension of this attainment date for up to five years, providing the state demonstrates that the plan includes the Most Stringent Measures (MSM) that are included in any state's plan or achieved in practice by any State, and can be feasibly implemented in the area. Consequently, a rigorous planning effort was conducted to develop 77 additional control measures. The serious $PM_{10}$ nonattainment area plan was submitted to the EPA on July 9, 1999. The EPA approved the revised serious $PM_{10}$ nonattainment area plan in April 2002, contingent on the completion of three commitments by Maricopa County. The revisions to Rule 310 (adopted April 7, 2004) addressed the commitments.

As a result of litigation on the moderate $PM_{10}$ nonattainment area plan, the Arizona Department Of Environmental Quality (ADEQ's) prepared and submitted a Plan For Attainment Of The 24-Hour $PM_{10}$ Standard–Maricopa County $PM_{10}$ Nonattainment Area in May 1997. The EPA partially disapproved the Arizona 24-hour Standard $PM_{10}$ SIP revision triggering a federal implementation plan (FIP) obligation, which remains in place, related to the area's $PM_{10}$ moderate area plan. The obligation resulted from the EPA disapproved those sections of the SIP addressing unpaved roads, unpaved shoulders, unpaved parking lots, vacant lots and agriculture. The EPA found that the SIP did not contain measures to reduce the emissions from or the number of existing sources in these categories and therefore failed to implement reasonably available control measures. Under the court ordered consent decree, the EPA finalized a FIP in July 1998 for the Maricopa County $PM_{10}$ nonattainment area that addresses those four categories of sources.

On July 2, 2002, the EPA found the controls proposed in the Arizona 24-hour Standard $PM_{10}$ SIP revision were inadequate to ensure the attainment of the $PM_{10}$ NAAQS at the Salt River air quality monitoring sites. The finding of inadequacy included the State Implementation Plan's (SIP's) attainment and reasonable further progress (RFP) demonstrations for the 24-hour $PM_{10}$ standard at the Salt River monitoring sites and three other microscale sites in the Maricopa County $PM_{10}$ nonattainment area (Maryvale, Gilbert, and West Chandler).

Although the EPA approved Arizona's 1997 SIP revision and additional required controls proposed by Maricopa County on August 4, 1997, EPA's Aerometric Information Retrieval System (AIRS) continued to show exceedances at the Maricopa County $PM_{10}$ nonattainment area Salt River site - recording expected exceedances in 1999, 2000, and through three quarters of 2001. Consequently, the EPA required Arizona to submit a SIP revision to identify and implement corrective $PM_{10}$ control provisions in the Salt River Study Area and for similar significant sources in the Maricopa County $PM_{10}$ nonattainment area.

Arizona's SIP revision was required to provide for attainment in the Salt River site no later than December 31, 2006, in accordance with CAA §189(b)(1)(A) and 188(e), and was required to include control strategies that meet the Best Available Control Measures (BACM) test and the Most Stringent Measures (MSM) test for significant sources and source categories.

The Final Revised $PM_{10}$ State Implementation Plan For The Salt River Area dated August 2004 contained Arizona's revisions to the State Implementation Plan for the Maricopa County $PM_{10}$ serious nonattainment area and included the following State Implementation Plan requirements, as described by the EPA in its Federal Register notice of disapproval (67 FR 44369, July 2, 2002):

- A modeling demonstration showing that the level of emissions reductions from application of BACM-MSM for all significant sources of $PM_{10}$ will result in attainment of the 24-hour NAAQS by December 31, 2006, at the Salt River $PM_{10}$ monitoring site, in accordance with CAA §189(b)(1)(A) and §188(e).
- Commitments to implement Best Available Control Measures (BACM)-Most Stringent Measures (MSM) for sources significantly contributing to exceedances of the 24-hour $PM_{10}$ standard in the Salt River area as expeditiously as possible (CAA §189(b)(1)(B)) and a commitment that all BACM and MSM control measures adopted and applied to sources in the Salt River Study Area will be applied to all similar sources throughout the Maricopa County $PM_{10}$ serious nonattainment area.
- A demonstration that the plan constitutes Reasonable Further Progress (RFP) up to the attainment deadline - December 31, 2006.
- A demonstration that all the requirements of the federal Clean Air Act Amendments that pertain to serious $PM_{10}$ nonattainment areas are met - including CAA §110(l), §110(a)(2)(E)(i), and 40 CFR §51.280 and §51.111).

**Explanation For Current Rulemaking Proposals:**

For the Five Percent Plan for $PM_{10}$, an analysis was again conducted to identify additional measures to reduce emissions and/or improve compliance with existing requirements. In addition, the Arizona State Legislature enacted SB 1552 that also contains requirements for additional control measures that are proposed for inclusion in the revisions to the rules proposed in this notice. The MCAQD is also proposing to re-format the rules and clarify text to address concerns and comments that arose in the enforcement process. Finally, the MCAQD is also proposing to include several control measures adopted as BACM/MSM in Maricopa County Air Pollution Control Regulations Rule 316 in June 2005 for the Salt River SIP in Rules 310 and 310.01.

From July 2006 through January 2007, the MCAQD conducted a rule effectiveness study for Rules 310, 310.01 and 316. The results of the study were applied to the 2005 periodic emission inventory for $PM_{10}$ to estimate emissions from the affected source categories. The study found that 51% of permitted sites complied with Rule 310 and 68% on the non-permitted sites complied with Rule 310.01. To improve the compliance rate for the rules, the proposed rule revisions include provisions to train and educate affected sources consistent with SB 1552, clarify existing rule provisions and include new provisions to increase the consistency of compliance.

Construction activities represent a significant contribution to the attainment demonstration for both high wind and low wind days at two separate sites. For a low wind design day, Table 8-8 on page 8-50 (West 43rd Avenue site) shows that construction activities contribute 11.39 $ug/m^3$ out of a total of

233.09 ug/m$^3$. A source category that contributes 5 ug/m$^3$ or more is considered to be a significant contributor to an nonattainment area's exceedances. Table 8-8 also indicates that a 48% reduction in construction activities is needed in order for the monitor to achieve attainment. In terms of a high wind day, the roll back modeling performed at the Higley monitor demonstrates the dominant role construction activities play in contributing to the monitor's exceedances. Table VI-29 on page VI-43 indicates that construction activities contribute a staggering 80.43% of the $PM_{10}$ emissions around the monitor, far outweighing any other source of emissions. Lastly, the emissions reductions from construction activities, attributed to the control measures (see measures 2, 3, 8-10, 16, 36-38, 44) as documented in the Technical Support Document, combine to total 16,373 tons per year by 2010.

Windblown dust from vacant lots represents a significant contribution to the attainment demonstration high wind days at the West 43rd Avenue site. Table 8-13 on page 8-55 shows that windblown dust from vacant lots contributes 20.50 ug/m$^3$ out of a total of 202.22 ug/m$^3$. A source category that contributes 5 ug/m$^3$ or more is considered to be a significant contributor to a nonattainment area's exceedances. Table 8-13 also indicates that a 26% reduction in windblown dust from vacant lots is needed in order for the monitor to achieve attainment. Lastly, the emissions reductions from vacant lots, attributed to the control measures (see measures 8, 30-33) as documented in the Technical Support Document, combine to total 1,454 tons per year by 2010.

The MCAQD reviewed rules from Clark County, Nevada; Pima County Department of Environmental Quality, Arizona (Pima DEQ); South Coast Air Quality Management District, California (SCAQMD); and San Joaquin Unified Air Pollution Control District, California (SJUAPCD) to identify differences between County rules and rules from areas that successfully met the December 31, 2006 attainment date.

Clark County fugitive dust rules apply to a desert environment and Clark County did attain the $PM_{10}$ standard by December 31, 2006. Clark County Regulation Section 94 – Permitting And Dust Control For Construction Activities includes specific actions than an affected owner or operator must complete each day (94.7.8) and includes a subsection on Construction Activities Violations (94.10.1) that provides an extensive list of actions that may result in a violation. The MCAQD is proposing rule revisions to the existing record keeping requirements, which are modeled after the Clark County rule, to more clearly describe what actions are necessary in order to record daily the application of dust control measures. The MCAQD is also proposing a General Requirements section, which is similar to a section contained in Rule 310, that includes an extensive list summarizing and reminding owners and operators of all the various requirements.

SCAQMD Rule 403 includes a requirement that the cumulative trackout from all exits for a site shall not exceed 25 feet. This requirement was included in Rule 316 as BACM/MSM for the Salt River SIP revision. The Maricopa County Associations Of Government (MAG) included this measure as a suggested measure in the Five Percent Plan. The MCAQD is proposing to apply this measure to the other fugitive dust sources in Rules 310 and 310.01.

Clark County, Pima DEQ, SCAQMD, and SJUAPCD rules all include provisions that do not allow visible emissions from activities on a site to extend beyond the property line. MAG also included this measure as a suggested measure in the Five Percent Plan. The MCAQD is proposing to include this measure in Rules 310 and in 310.01 to improve compliance with the rules.

Clark County Sections 90 and 94 include requirements for long-term stabilization. Section 94.8.3 requires long-term stabilization when a site or part thereof becomes inactive for a period of 30 days or longer to be implemented within 10 days. The Clark County Section 90.2.1.1(a) does not allow the use of water where measures to prevent vehicular trespassing and movement are not effective. The MCAQD is proposing revisions to the long-term stabilization control measures that reduce the period of inactivity to 30 days and links the stabilization by water with the requirement for barriers.

Other revisions incorporate the provisions of SB 1552 that mandate training and require a dust coordinator to be onsite at all times in Rule 310. These changes are designed to improve the site oversight and increase the compliance rate with the existing rule provisions. Based on the MCAQD's experience in enforcing the current rules, several changes are proposed to clarify existing requirements. For example, the MCAQD has been receiving complaints about dust emissions from vehicles driving on dusty surfaces on construction projects at schools and hospitals and from vehicles passing dusty curbs, gutters and sidewalks. The MCAQD is proposing to clarify the definition of "area accessible to the public" by removing the word "retail" from the definition. The MCAQD is also proposing to extend the trackout clean up requirements to include curbs, gutters and sidewalks as well as paved roads.

In Rule 310.01, the MCAQD is proposing to add the requirement to install a trackout control device to the subsection covering unpaved parking lots and the subsection covering off-site hauling of bulk materials by livestock operations. The MCAQD is also proposing to add control measures for other areas of a livestock operation beyond the livestock areas and modify the data reduction method for the opacity standard. SB 1552 does not include a de minimis threshold for vacant lots or unpaved ingress, egress, vehicle parking and use areas other than for a property with 4 or fewer residential units. The MCAQD is proposing to revise the threshold for vehicle use in open areas and vacant lots to be consistent with the de minimis threshold in the open areas and vacant lot subsection. In addition, the

threshold for stabilizing an unpaved parking lot will be revised to match the requirements of SB 1552. The MCAQD is also proposing to include another provision from SB 1552 authorizing the County to enter a lot to stabilize the disturbed surface at the expense of the owner if the vacant lot has not been stabilized by the day set for compliance in the 30 day notification letter.

In Rule 200, the MCAQD is proposing to add provisions that require subcontractors working on dust generating operations to register with the County to comply with SB 1552. The subcontractors will receive a registration number that they will be required to keep readily accessible to the Control Officer.

**Section By Section Explanation Of Changes:**

**Rule 200-Permit Requirements:**

Rule 200, Section 301-Permits Required: To change "this rule" to "these rules" and to add as last sentence "The Maricopa County Air Quality Department issues the following permits: Title V permits, Non-Title V permits, General permits, Dust Control permits, and Permits To Burn. The standards and/or requirements for these permits are described in Section 302 thru Section 305 and Section 307 of this rule. Additional standards, administrative requirements, and monitoring and records requirements for some of these permits are described in individual rules of these rules, as applicable/as specified in Section 302 thru Section 305 and Section 307 of this rule."

Rule 200, Section 305-Earth Moving Permit: To change heading "Earth Moving Permit" to "Dust Control Permit". To change introduction "No person shall cause, commence, suffer, allow, or engage in any earth moving operation that disturbs a total surface area of 0.10 acre or more without first obtaining a permit from the Control Officer. This requirement for a permit shall apply to all such activities conducted for commercial, industrial, or institutional purposes or conducted by any governmental entity. The property owner, lessee, developer, or general/prime contractor will be responsible for acquiring the permit. Permits shall not be required for earth moving operations for emergency repair of utilities, paved roads, unpaved roads, shoulders, and/or alleys" to "A Dust Control permit shall be required before a person, including but not limited to, the property owner, lessee, developer, responsible official, Dust Control permit applicant (who may also be the responsible party contracting to do the work), general contractor, prime contractor, supervisor, management company, or any person who owns, leases, operates, controls, or supervises a dust generating operation subject to the requirements of Rule 310 of these rules, causes, commences, suffers, allows, or engages in any dust generating operation that disturbs a total surface area of 0.10 acre (4,356 square feet) or more. The provisions of Rule 310 of these rules shall apply to Dust Control permits, except as otherwise provided in Rule 310 of these rules."

Rule 200, Section 305.1: To delete "Application: The applicant shall file an application, which includes an 8½" x 11" site map showing all linear dimensions, and shall submit a control plan as described in Rule 310 of these rules." This information is proposed to be addressed in Rule 310.

Rule 200, Section 305.2: To delete "Annual Block Permit: Any person responsible for more than one earth moving operation consisting of routine operation, maintenance, and expansion or extension of utilities, paved roads, unpaved roads, road shoulders and/or alleys, and public right of ways at non-contiguous sites may submit one permit application covering multiple sites at which construction will commence within 12 months of permit issuance provided that: a. The control plan as described in Rule 310 of these rules applies to all sites; and b. The applicant submits a list of all sites, including the location and size of each site, with the application; and c. For any project not listed in the application, the applicant notifies the Control Officer in writing at least three working days prior to commencing the earth moving operation. The notice shall include the site location, size, type of activity, and start date." This information is proposed to be addressed in Rule 310.

Rule 200, Section 305.3: To delete "Action On Permit Application: The Control Officer shall take final action on an earth moving permit application within 14 calendar days of the filing of the completed application. The Control Officer shall notify the applicant in writing of his approval or denial." This information is proposed to be addressed in Rule 310.

Rule 200, Section 305.4: To delete "Permit Term: Earth Moving permits issued pursuant to this rule shall be issued for a period of one year from the date of issuance." This information is proposed to be addressed in Rule 310.

Rule 200, Section 305.5: To delete "Permit Renewal: Earth Moving permits shall be renewed annually should the project last longer than one year from the date the permit was issued. Applications for permit renewal shall be submitted to the Control Officer at least 14 calendar days prior to the expiration date of the original permit." This information is proposed to be addressed in Rule 310.

Rule 200, New Section 306-Subcontractor Registration: To add new Section 306 to comply with Arizona Revised Statutes (A.R.S.) § 49-474.06: "306.1 A subcontractor who is engaged in dust generating operations at a site that is subject to a permit that is issued by a Control Officer and that requires control of $PM_{10}$ emissions from dust generating operations shall register with the Control Officer by submitting information in the manner prescribed by the Control Officer. The Control Officer shall issue a registration number after payment of the fee. The Control Officer may establish and assess a fee for the registration based on the total cost of processing the registration and issuance of a registration number. 306.2 The subcontractor shall have its registration number readily accessible

on-site while conducting any dust generating operations. The subcontractor's registration number must be visible and readable by the public without having to be asked by the public (e.g., included/posted in a sign that is visible on the subcontractor's vehicle or equipment, included/posted on a sign that is visible in the window of the subcontractor's vehicle or equipment, or included/posted on a sign where the subcontractor is working on the site)."

**Rule 310-Fugitive Dust:**

Rule 310, Rule Title: To change "Fugitive Dust" to "Fugitive Dust From Dust Generating Operations."

Rule 310, Section 101: To add "($PM_{10}$)."

Rule 310, Section 102: To add "of this rule."

Rule 310, Section 103: To change format. To add exemption for non-traditional sources. To add exemption for emergency activities. To delete "The following are exempt from the requirements of this rule: normal farm cultural practices under Arizona Revised Statutes (A.R.S.) § 49-457 and § 49-504.4, and open areas, vacant lots, unpaved parking lots, and unpaved roadways that are not located at sources that require any permit under these rules" and to add "The provisions of this rule shall not apply to the following activities: 103.1 The provisions of this rule shall not apply to normal farm cultural practices according to Arizona Revised Statutes (A.R.S.) § 49-457 and A.R.S. § 49-504.4. 103.2 The provisions of this rule shall not apply to the following non-traditional sources of fugitive dust that are located at sources that do not require any permit under these rules. These non-traditional sources of fugitive dust are subject to the standards and/or requirements described in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust of these rules. a. Vehicle use in open areas and vacant lots. b. Open areas and vacant lots. c. Unpaved parking lots. d. Unpaved roadways (including alleys). e. Livestock activities. f. Erosion-caused deposition of bulk materials onto paved surfaces. g. Easements, rights-of-way, and access roads for utilities (transmission of electricity, natural gas, oil, water, and gas). 103.3 The provisions of this rule shall not apply to emergency activities that may disturb the soil conducted by any utility or government agency in order to prevent public injury or to restore critical utilities to functional status. 103.4 An area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in Section 304 of this rule. 103.5 Establishing initial landscapes without the use of mechanized equipment, conducting landscape maintenance without the use of mechanized equipment, and playing on or maintaining a field used for non-motorized sports shall not be considered a dust generating operation. However, establishing initial landscapes without the use of mechanized equipment and conducting landscape maintenance without the use of mechanized equipment shall not include grading, or trenching performed to establish initial landscapes or to redesign existing

landscapes. 103.6 Fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III-Control Of Air Contaminants of these rules."

Rule 310, New Section 201: To add "Area A - As defined in A.R.S. § 49-541(1), the area in Maricopa County delineated as follows: Township 8 North, Range 2 East and Range 3 East; Township 7 North, Range 2 West through Range 5 East; Township 6 North, Range 5 West through Range 6 East; Township 5 North, Range 5 West through Range 7 East; Township 4 North, Range 5 West through Range 8 East; Township 3 North, Range 5 West through Range 8 East; Township 2 North, Range 5 West through Range 8 East; Township 1 North, Range 5 West through Range 7 East; Township 1 South, Range 5 West through Range 7 East; Township 2 South, Range 5 West through Range 7 East; Township 3 South, Range 5 West through Range 1 East; Township 4 South, Range 5 West through Range 1 East."

Rule 310, Re-Numbered Section 202: To delete "retail". To delete "open". In Notice of Proposed Rulemaking (NPR), "accessible" was proposed to replace "open". In this draft Notice of Final Rulemaking (NFR) instead-of using the term in the definition of the term that's being defined ("accessible"), propose to delete "accessible" and to add "can be approached, entered, or used for." The definition of area accessible to the public to read as follows: "Any parking lot or public roadway that can be approached, entered, or used for public travel primarily for purposes unrelated to the dust generating operation." Areas accessible to the public should not be limited-to retail parking lots. Parking lots for churches, schools, other institutions meet the definition. The definition of "area accessible to the public" replaces the definition of "public roadway". The new term covers areas previously not included, such as paved parking lots accessible to the public. Maricopa County proposed this change on recommendation from enforcement/County Attorney. Maricopa County was unable to proceed with enforcement, when a contractor claimed the shopping center driveway was a site's trackout control device, instead of installing a device prior to the exit from the building site. The proposed change will close this loophole. Because of the expansion of the "public access" theory, dust generating operations may have increased areas in which they have to use certain dust control measures. Maricopa County predicts that the number of projects that will be newly affected by this change in terminology will be small. Additionally because of existing dust management requirements, it is expected that sources affected by this change have the necessary equipment to easily implement the new standard. The definition of "areas accessible to the public", as reflected in amendments adopted by the Maricopa County Board Of Supervisors during a Pubic Hearing on April 7, 2004, was the product of Maricopa County's collaboration with small businesses to design a definition that meets the needs of the regulated community while meeting Maricopa County's commitments in the serious

area $PM_{10}$ plan. The exception for paved areas that have been designated as a trackout control device would allow Maricopa County the discretion, at the time of approving a Dust Control Plan, to distinguish between suitable paved area trackout control devices that are accessible to the public and those that are not suitable (i.e., shopping mall parking lots). If a source is using a paved area accessible to the public as the trackout control device, then the paved area accessible to the public must be part of the designated work site. The source must identify such paved area accessible to the public as a trackout control device in the Dust Control Plan and must follow the requirements for maintaining a trackout control device. Regardless of an area being an interior road or not, such area accessible to the public is subject to the requirements of Rule 310.

Rule 310, Re-Numbered Section 203: To change format of definition of bulk material and to list only once materials that are listed twice (i.e., earth and soil).

Rule 310, Re-Numbered Section 204: To change format. Unloading applies to dumping activities.

Rule 310, Re-Numbered Section 205.3: To change "pre-wetting" to "pre-watering." To match term used in Application For Dust Control Permit and Guidance For Application For Dust Control Permit - "pre-watering".

Rule 310, Re-Numbered Section 206: To match definition of disturbed surface area to definition of disturbed surface area in Senate Bill 1552. Senate Bill 1552 reads, in part, as follows: A.R.S. § 49-474.01(A)(11) In a county with a population of two million or more persons or any portion of a county within an area designated by the Environmental Protection Agency as a serious $PM_{10}$ nonattainment area or a maintenance area that was designated as a serious $PM_{10}$ nonattainment area, no later than March 31, 2008, adopt rule provisions, and, no later than October 1, 2008, commence enforcement of those rule provisions regarding the stabilization of disturbed surfaces of vacant lots that include the following: "Disturbed surface" means 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. Vacant lots do not include any site of disturbed surface area that is subject to a permit issued by the Control Officer that requires control of $PM_{10}$ emissions from dust generating operations. To move "For the purpose of this rule, an area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in Section 301 and Section 302 of this rule" to New Section 103.4.

Rule 310, Re-Numbered Section 208: To delete "fugitive dust" and to add "to be implemented and maintained in order to prevent or minimize the generation, emission, entrainment, suspension, and/or airborne transport of fugitive dust."

Rule 310, Re-Numbered Section 209: To change format and to change definition to match Clark County's definition of "construction activities" in Section 94-Permitting And Dust Control For Construction Activities. To move "For the purpose of this rule, landscape maintenance and playing on or maintaining a field used for non-motorized sports shall not be considered a dust generating operation. However, landscape maintenance shall not include grading, trenching, or any other mechanized surface disturbing activities performed to establish initial landscapes or to redesign existing landscapes" to New Section 103.5.

Rule 310, Re-Numbered Section 211: To change format.

Rule 310, New Section 212: To add "Emergency - A situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a limitation in this rule, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include any noncompliance due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error."

Rule 310, New Section 213: To add "Emergency Activity - Repairs that are a result of an emergency which prevents or hinders the provision of electricity, the distribution/collection of water, and the availability of other utilities due to unforeseen circumstances that are beyond the routine maintenance and repair due to normal wear conducted by a utility or municipality."

Rule 310, New Section 214: In the Notice of Proposed Rulemaking (NPR), the definition of end of work day was proposed to read as follows: "The end of a working period that may include one or more work shifts but not later than 8 pm." In the draft Notice of Final Rulemaking (NFR) to make the definition less ambiguous as to what is considered to be the end of a working period, because some sources work 24 hours a day, propose to change the definition of end of work day such that it reads as follows: "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 pm."

Rule 310, Re-Numbered Section 216: To move "For the purpose of this rule, fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and

does not include emissions from process and combustion sources that are subject to other rules in Regulation III-Control Of Air Contaminants of these rules" to New Section 103.6.

Rule 310, Re-Numbered Section 217: To add "A gravel pad shall consist of one inch to 3 inches rough diameter, clean, well-graded gravel or crushed rock. Minimum dimensions must be 30 feet wide by 3 inches deep, and, at minimum, 50 feet long or the length of the longest haul truck, whichever is greater." To add dimensions of gravel pad to the definition of gravel pad and to remove dimensions of gravel pad from Rule 310 regarding trackout. Staff recommends that gravel pad be required to be three inches deep instead-of six inches deep because experience in the field has shown six inches deep to inhibit vehicle travel rather than reduce trackout. Proposed dimensions of gravel pad are same dimensions required in Clark County's Construction Activities Dust Control Handbook.

Rule 310, Re-Numbered Section 219: To delete "Open Areas And Vacant Lots - Any of the following described in Section 219.1 through Section 219.4 of this rule. For the purpose of this rule, vacant portions of residential or commercial lots that are immediately adjacent and owned and/or operated by the same individual or entity are considered one open area or vacant lot. 219.1 An unsubdivided or undeveloped tract of land adjoining a developed or partially developed residential, industrial, institutional, governmental, or commercial area. 219.2 A subdivided residential, industrial, institutional, governmental, or commercial lot that contains no approved or permitted buildings or structures of a temporary or permanent nature. 219.3 A partially developed residential, industrial, institutional, governmental, or commercial lot. 219.4 A tract of land, in the nonattainment area, adjoining agricultural property." Term is used in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust.

Rule 310, New Section 223: In the Notice of Proposed Rulemaking (NPR), proposed to add the definition of open storage pile - to read as follows: "Any accumulation of bulk material with a 5% or greater silt content which in any one point attains a height of three feet and a total surface area of 150 square feet or more. Silt content shall be assumed to be 5% or greater unless a person can show, by testing in accordance with ASTM Method C136-06 or other equivalent method approved in writing by the Control Officer and the Administrator that the silt content is less than 5%." In the NPR, proposed to move definition of "open storage pile" from standards section to definitions section; Term and definition were used in Rule 310, Section 308.6 adopted April 7, 2004. An open storage pile is an open storage pile if/when such pile attains a height of three feet and a total surface area of 150 square feet or more. Such dimensions match dimensions used in South Coast's Rule 403-Fugitive Dust definition of open storage pile. In the draft Notice of Final Rulemaking (NFR), propose, in the first sentence of the definition of open storage pile, to delete "which in any one point attains a height of three feet and covers a total surface area of 150 square feet or more" and to add "that has a total surface area of 150

square feet or more and that at any one point attains a height of three feet." The intent is that the surface area of the storage pile is of concern - not the footprint of the storage pile.

Rule 310, Re-Numbered Section 224: To delete "responsible for obtaining an earthmoving permit under Rule 200, Section 305" and to add "including, but not limited to, the property owner, lessee, developer, responsible official, Dust Control permit applicant (who may also be the responsible party contracting to do the work), general contractor, prime contractor, supervisor, management company."

Rule 310, New Section 226: To add "Property Line - The boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies." Definition matches definition used in South Coast's Rule 403-Fugitive Dust.

Rule 310, Section 230: To delete "Urban Or Suburban Open Area – The definition of urban or suburban open area is included in Section 219-Definition Of Open Areas And Vacant Lots of this rule." Term is used in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust.

Rule 310, Section 231: To delete "Vacant Lot – The definition of vacant lot is included in Section 219-Definition Of Open Areas And Vacant Lots of this rule." Term is used in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust.

Rule 310, Section 232: To delete "Vacant Parcel – The definition of vacant parcel is included in Section 219-Definition Of Open Areas And Vacant Lots of this rule." Term is used in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust.

Rule 310, Re-Numbered Section 233: To delete "larger than 5,000 square feet" and to add "material handling", "and equipment", and "An unpaved parking lot includes, but is not limited to, automobile impound yards, wrecking yards, automobile dismantling yards, salvage yards, material handling yards, and storage yards. For the purpose of this definition, maneuvering shall not include military maneuvers or exercises conducted on federal facilities." To change definition of "unpaved parking lot" to match Clark County's definition of "unpaved parking lot" in Section 92-Fugitive Dust From Unpaved Parking Lots; Material Handling And Storage Yards; And Vehicle And Equipment Storage Yards.

Rule 310, Re-Numbered Section 234: To move "For the purpose of this rule, an unpaved road is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles" to New Section 103.8.

Rule 310, Re-Numbered Section 237: To delete "and/or earthmoving operations", because the phrase is included in the definition of "dust generating operations."

Rule 310, New Section 301: To add general requirements for dust generating operations. General requirements for dust generating operations are intended to clarify the duties to which an owner and/or operator must comply and to distinguish between control measures, stabilization standards, and test methods. The intent of the language in Section 301 is to make it clear that regardless of a site's permitting status - permit or no permit, Dust Control Plan or no Dust Control Plan - the site must comply with all the applicable provisions of Rule 310 if engaging in a dust generating operation. Ignorance of Rule 310 through lack of a permit or Dust Control Plan is not an acceptable defense for not implementing Rule 310 provisions at a site that has dust generating operations. Also, to add a statement that requirements of Rule 310 must be complied-with before, after, and while conducting dust generating operations, including during weekends, after work hours, and on holidays.

Rule 310, New Section 302: To add permit requirements for dust generating operations from Rule 200-Permit Requirements. Permit requirements for earthmoving operations to be revised in Rule 200 and to reference Rule 310.

Rule 310, New Section 302.3: In the Notice of Proposed Rulemaking (NPR), proposed new Section 302 - to add permit requirements for dust generating operations from Rule 200-Permit Requirements; Permit requirements for earthmoving operations to be revised in Rule 200 and to reference Rule 310. Also in the NPR, proposed revisions to Section 402 - to move the description of the required elements of a Dust Control Plan from standards section of Rule 310 to administrative requirements section of Rule 310. In the draft Notice of Final Rulemaking (NFR), propose to revise new Section 302.3 - permit requirements for routine dust generating operations at a site with a Title V permit, Non-Title V permit, or General permit - to be consistent with revised Section 402.1 - Dust Control Plan requirements for routine dust generating operations at a site with a Title V permit, Non-Title V permit, or General permit. In the draft NFR, propose to add "that disturbs a surface area of 0.10 acre or greater" to new Section 302.3. New Section 302.3 to read: "No person shall commence any routine dust generating operation that disturbs a surface area of 0.10 acre or greater at a site that has obtained or must obtain a Title V, Non-Title V, or General permit under Regulation III-Permits And Fees of these rules without first submitting to the Control Officer a Dust Control Plan."

Rule 310, Re-Numbered Section 303: To delete "The owner and/or operator of a dust generating operation shall not allow visible fugitive dust emissions to exceed 20% opacity as tested by methods

described in Appendix C of these rules" and to add heading "Visible Emissions Requirements For Dust Generating Operation."

Rule 310, New Section 303.1: To add "Dust Generating Operation Opacity Limitation Requirement: The owner and/or operator of a dust generating operation shall not allow visible fugitive dust emissions to exceed the limits listed in either one of the following: a. The owner and/or operator of a dust generating operation shall not cause or allow visible fugitive dust emissions to exceed 20% opacity. b. 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. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six minute period as determined using EPA Reference Method 22." To add 0% opacity limit beyond the property line. 0% opacity limit beyond the property line matches standard in Rule 316-Nonmetallic Mineral Processing, standard in Clark County Section 94-Permitting And Dust Control For Construction Activities, and standard in Pima County 17.16.

Rule 310, Re-Numbered Section 303.2: To add heading "Exemptions From Dust Generating Operation Opacity Limitation Requirement."

Rule 310, Re-Numbered Section 303.2(a): In the Notice of Proposed Rulemaking (NPR), proposed to delete "The 20% opacity exceedance" and to add "Exceedances of the opacity limit described in Section 303.1(a) of this rule." In the Notice of Final Rulemaking (NFR), propose to change "Exceedances of the opacity limit described in Section 303.1(a) of this rule" to "Exceedances of the opacity limits described in Section 303.1 of this rule." With this proposed change, an exemption will be provided from the 20% opacity limitation and from the property line standard provided specific/specified control measures are implemented.

Rule 310, Re-Numbered Section 303.2(a)(1): To delete "1" and to add "one." To add "following." To delete "in Tables 20 & 21 was" and to add "were." To remove reference to Table 20 and Table 21 and to add control measures from Table 20 and Table 21 - regarding wind event - to Rule 310, Section 303.2(a)(1).

Rule 310, Re-Numbered Section 303.2(a)(2): To delete "The 20% opacity exceedance" and to add "Exceedances of the opacity limit described in Section 303.1 of this rule." With this proposed change, an exemption will be provided from the 20% opacity limitation and from the property line standard provided specific/specified control measures are implemented.

Rule 310, Re-Numbered Section 303.2(a)(4): To delete "Maricopa County Environmental Services Department Air Quality Division" and to add "Maricopa County Air Quality Department."

Rule 310, Re-Numbered Section 303.2(b): To delete "No opacity limitation shall" and to add "The opacity limit described in Section 303.1 of this rule shall not." With this proposed change, an exemption will be provided from the 20% opacity limitation and from the property line standard provided specific/specified control measures are implemented.

Rule 310, Re-Numbered Section 303.2(c): To delete "No opacity limitation shall" and to add "The opacity limit described in Section 303.1(a) of this rule shall not." To add "However, all areas used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized after such testing, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. All areas not used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. In addition, vehicle test and development facilities may require a Dust Control permit in accordance with Section 302 of this rule." To add requirement that all areas used to test and validate design integrity, product quality, and/or commercial acceptance and all areas not used to test and validate design integrity, product quality, and/or commercial acceptance must be stabilized and that vehicle test and development facilities may require a Dust Control permit in accordance with Rule 310, Section 302.

Rule 310, New Section 303.2(d): In the draft Notice of Final Rulemaking (NFR), propose to add new Section 303.2(d), which will add an exemption from the property line standard when an owner and/or operator conducts dust generating operations within 25 feet of the property line. New Section 303.2(d) to read: "Activities Near The Property Line: The opacity limit described in Section 303.1(b) of this rule shall not apply to dust generating operations conducted within 25 feet of the property line."

Rule 310, Re-Numbered Section 304: To move Dust Control Plan requirements from standards section to administrative requirements section.

Rule 310, Re-Numbered Section 304.1: To add "Section 304.1(a) or Section 304.1(b) of this rule."

Rule 310, Re-Numbered Section 304.2(a): To add "Section 304.2(a)(1) or Section 304.2(a)(2) of this rule."

Rule 310, Re-Numbered Section 304.2(b): To add "in Section 304.2(a) of this rule". To delete "subsection" and to add "section of this rule." To add "and a description of how vehicle speeds will be restricted to no more than 15 miles per hour."

Rule 310, Re-Numbered Section 304.3: To delete heading "Open Area And Vacant Lot." To delete "an open area and/or vacant lot or." To delete "1" and to add "one." To delete "Sections 302.3(a) through 302.3(g)" and to add "Section 304.3(a) through 304.3(g)." To delete "a disturbed open area and/or vacant lot or." To delete "disturbance" and to add "visibly distinguishable stabilization characteristics." To delete "according to the appropriate test methods in Appendix C of these rules, and include or eliminate it from the total size assessment of disturbed surface area(s) depending upon test method results" and to add "in accordance with the appropriate test methods described in Section 501.2(c) of this rule and in Appendix C-Fugitive Dust Test Methods of these rules."

Rule 310, Re-Numbered Section 304.3(a): To delete "visible" and to add "soil."

Rule 310, Re-Numbered Section 304.3(g): To delete "of the Environmental Protection Agency (EPA)."

Rule 310, Re-Numbered Section 304.4: To add "However, all areas used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized after such testing, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. All areas not used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. In addition, vehicle test and development facilities may require a Dust Control permit in accordance with Section 302 of this rule." To add requirement that all areas used to test and validate design integrity, product quality, and/or commercial acceptance and all areas not used to test and validate design integrity, product quality, and/or commercial acceptance must be stabilized and that vehicle test and development facilities may require a Dust Control permit in accordance with Rule 310, Section 302.

Rule 310, Re-Numbered Section 305: To add heading "For Dust Generating Operations" and to add "When engaged in a dust generating operation, the owner and/or operator shall install, maintain, and use control measures, as applicable. The owner and/or operator of a dust generating operation shall implement control measures before, after, and while conducting dust generating operations, including during weekends, after work hours, and on holidays. Control measures for specific dust generating operations are described in Section 305.1 through Section 305.12 of this rule." To move the general requirements for control measures to New Section 301 and to retain in Section 305 requirements addressing specific control measures. General requirements for dust generating operations are intended to clarify the duties to which an owner and/or operator must comply and to distinguish between control measures, stabilization standards, and test methods. To delete Rule 310, Section 308 and to add work practices to specific control measures described in re-numbered Section 305.

Rule 310, Re-Numbered Section 305.1: To delete Table 15 and to add control measures from Table 15 to Rule 310, Section 305.1. To change heading to "Off-Site Hauling Onto Paved Areas Accessible To The Public." To add requirement to install, maintain, and use a trackout control device. Normally, scrapers would not be subject to Section 305.1, because scrapers are not often utilized to haul or transport bulk material onto a public roadway. If a scraper is utilized for this purpose, then the compartment of the scraper that is hauling bulk material would need to be tarped. "Across the roadway" simply refers to any and all vehicle traffic that goes from one side of the roadway to the other side.

Rule 310, New Section 305.1(a)(2): In the Notice of Proposed Rulemaking (NPR), the intent of proposed new Section 305.1(a)(2) was to require that haul trucks be loaded such that the bulk material within the cargo compartment be no higher than the bulk material along the sides, front, and back of the cargo compartment. In the NPR, the text of new Section 305.1(a)(2) did not clearly express such intent. In the Notice of Final Rulemaking (NFR), propose to delete "the highest point at which the bulk material contacts". In the NFR, new Section 305.1(a)(2) to read: "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 a cargo container area."

Rule 310, Re-Numbered Section 305.2: To delete Table 13 and Table 14 and to add control measures from Table 13 and Table 14 to Rule 310, Section 305.2 and Section 305.3. Re-numbered Section 305.2 provides for the implementation of one of three control measures - tarping, wetting the load, or limiting vehicle speed. Maricopa County has determined that bulk material hauling and transporting does produce significant emissions and at least one of the three control measures are needed to control emissions.

Rule 310, New Section 305.3: To delete Table 13 and Table 14 and to add control measures from Table 13 and Table 14 to Rule 310, Section 305.2 and Section 305.3.

Rule 310, Section 305.3(b): In the Notice of Proposed Rulemaking (NPR), the intent of proposed new Section 305.3(b) was to require that haul trucks be loaded such that the bulk material within the cargo compartment be no higher than the bulk material along the sides, front, and back of the cargo compartment. In the NPR, the text of new Section 305.3(b) did not clearly express such intent. In the Notice of Final Rulemaking (NFR), propose to delete "the highest point at which the bulk material contacts". In the NFR, new Section 305.3(b) to read: "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 a cargo container area."

Rule 310, New Section 305.4: To delete Table 11 and to add control measures from Table 11 to Rule 310, Section 305.4.

Rule 310, New Section 305.5: To delete Table 11 and Table 12 and to add control measures from Table 11 and Table 12 to Rule 310, Section 305.5.

Rule 310, New Section 305.6: To add control measures for staging areas, parking areas, material storage areas, and/or access routes to and from a site. Proposed control measures address vehicle use and parking on sites that require a permit and match Clark County's Section 94-Permitting And Dust Control For Construction Activities.

Rule 310, New Section 305.7: To delete Table 3 and to add control measures from Table 3 to Rule 310, Section 305.7.

Rule 310, New Section 305.8: To delete Table 18 and to add control measures from Table 18 to Rule 310, Section 305.8.

Rule 310, New Section 305.9: To delete Table 9 and to add control measures from Table 9 to Rule 310, Section 305.9. Pre-watering is intended to control the areas where vehicles and support equipment are operating - not necessarily where the actual blasting is occurring.

Rule 310, New Section 305.10: To delete Table 10 and to add control measures to Rule 310, Section 305.10.

Rule 310, New Section 305.11: To delete Table 5, Table 6, Table 7, and Table 8 and to add control measures from Table 5, Table 6, Table 7, and Table 8 to Rule 310, Section 305.11. Section 305.11(c)(4) matches Clark County's Construction Activities Dust Control Handbook. The intent of Section 305.11 is to establish a more permanent form of stabilization than water can provide, since the site is complete and most likely will not be visited regularly by site personnel. Water, as a control measure, is too temporary in these instances.

Rule 310, New Section 305.11(b)(1): Propose to add "as necessary" to the end of new Section 305.11(b)(1). New Section 305.11(b)(1) to read : "Apply water or other suitable dust suppressant other than water, as necessary."

Rule 310, New Section 305.12: To delete Table 19 and to add control measures from Table 19 to Rule 310, Section 305.12. To change "(electricity, natural gas, oil, water, and gas transmission)" to "(transmission of electricity, natural gas, oil, water, and gas)." To change "inside the $PM_{10}$ nonattainment area and "outside the $PM_{10}$ nonattainment area" to "inside Area A" and "outside Area A."

Rule 310, Re-Numbered Section 306: To delete Table 16 and Table 17 and to add control measures from Table 16 and Table 17 to Rule 310, Section 306. The dimensions of the gravel pad are minimums. If those dimensions do not produce a reduction in the trackout as required by Section 306, then the site has several options available to it, such as a grizzly, wheel washer, pavement, or extending the length of the gravel pad if that's the site's choice of action. Requiring extra length is not necessary given the other options available to the site. If visible emissions are observed crossing over the property line, then the site would be in violation of that standard. Since trackout is already outside the property line, the property line standard will have no effect on the standards for trackout.

Rule 310, New Section 306.1(b): In the Notice of Proposed Rulemaking (NPR), proposed to delete Table 16-Clean-Up Of Trackout, Carry-Out, Spillage, And Erosion and Table 17-Trackout Control and proposed to add control measures from Table 16 and Table 17 to new Section 306. In so doing, the control measures described in new Section 306.1(b) were intended to correspond with the work sites described in new Section 306.1(a). In the draft Notice of Final Rulemaking (NFR), propose to add to the beginning of new Section 306.1(b) the phrase: "For those work sites identified in Section 306.1(a) of this rule" to make it clear that the control measures described in new Section 306.1(b) are intended to correspond with the work sites described in new Section 306.1(a).

Rule 310, New Section 306.1(b)(2): In the Notice of Proposed Rulemaking (NPR), proposed to delete Table 16-Clean-Up Of Trackout, Carry-Out, Spillage, And Erosion and Table 17-Trackout Control and proposed to add control measures from Table 16 and Table 17 to new Section 306. In so doing, the reference to the definition of gravel pad was incorrect in new Section 306.1(b)(2). In the draft Notice of Final Rulemaking (NFR), propose to correct the reference to the definition of gravel pad in new Section 306.1(b)(2).

Re-Numbered Section 307: To change "visible crust" to "soil crust."

Rule 310, Re-Numbered Section 308: To move project information sign requirements from standards section to administrative requirements section. Specific information required to be on the project information sign matches requirements in Clark County's Construction Activities Dust Control Handbook adopted March 18, 2003.

Rule 310, New Section 309: To add requirements for dust control training classes to comply with Senate Bill 1552. Basic Dust Control Training Class can be conducted or approved by the Control Officer. Comprehensive Dust Control Training Class can be conducted or approved by the Control Officer. Training class to include implementation of control measures and discussion of what opacity is. However, formal opacity certification training will not be part of the training class. Opacity certification can only be done by the EPA-approved or ADEQ-approved trainers.

Rule 310, New Section 310: To add requirements for a Dust Control Coordinator to comply with Senate Bill 1552. Basic Dust Control Training Class can be conducted or approved by the Control Officer. Comprehensive Dust Control Training Class can be conducted or approved by the Control Officer.

Rule 310, Section 401: To add requirements for Dust Control permits.

Rule 310, New Section 401.1: In the Notice of Final Rulemaking (NFR), propose to delete the reference to Maricopa County's "Application For Dust Control Permit" and to revise the introductory statement to read as follows: "To apply for a Dust Control permit, an applicant shall complete a permit application in the manner and form prescribed by the Control Officer. At a minimum, such application shall contain the following information."

Rule 310, Section 402: To move elements of a Dust Control Plan from standards section to administrative requirements section.

Rule 310, Section 402.2: In the Notice of Final Rulemaking (NFR), propose to delete the second sentence in Section 402.2: "Applicants shall complete Maricopa County's "Application For Dust Control Permit" and submit such information as a Dust Control Plan."

Rule 310, New Section 402.3(c): In the Notice of Proposed Rulemaking (NPR), proposed to move the description of the required elements of a Dust Control Plan from standards section of Rule 310 to administrative requirements section of Rule 310. In the NPR, new Section 402.3(c) required that the control measures described in Section 305-Control Measures For Dust Generating Operations be included in the Dust Control Plan. In the draft Notice of Final Rulemaking (NFR), propose to add Section 306-Trackout, Carry-Out, Spillage, And/Or Erosion to new Section 402.3(c), so that the control measures for trackout, carry-out, spillage, and/or erosion will also be required to be included in the Dust Control Plan. New Section 402.3(c) to read: "Appropriate control measures, or a combination

thereof, as described in Section 305 and Section 306 of this rule, for every actual and potential dust generating operation."

Rule 310, New Section 402.3(c)(2): In the Notice of Proposed Rulemaking (NPR), proposed to add the following two sentences to new Section 402.3(c)(2): "Should any primary control measure(s) prove ineffective, the owner and/or operator shall immediately implement the contingency control measure(s). If the identified contingency control measure(s) is effective to comply with all of the requirements of this rule, the owner and/or operator need not revise the Dust Control Plan." In the draft Notice of Final Rulemaking (NFR), propose to delete these two sentences in new Section 402.3(c)(2), because they are already written in new Section 402.6.

Rule 310, New Section 402.3(c)(3): In the Notice of Proposed Rulemaking (NPR), proposed to move the description of the required elements of a Dust Control Plan from standards section of Rule 310 to administrative requirements section of Rule 310. In the NPR, new Section 402.3(c)(3) allowed alternative control measures to be used - control measures that were not listed in Section 305-Control Measures For Dust Generating Operations. In the draft Notice of Final Rulemaking (NFR), propose to add Section 306-Trackout, Carry-Out, Spillage, And/Or Erosion to new Section 402.3(c)(3), so that alternative control measures can be used - control measures that are not listed in Section 306-Trackout, Carry-Out, Spillage, And/Or Erosion. New Section 402.3(c)(3) to read: "A control measure that is not listed in Section 305 or in Section 306 of this rule may be chosen provided that such control measure is implemented to comply with the requirements described in Section 301 of this rule."

Rule 310, New Section 402.3(e): In the Notice of Proposed Rulemaking (NPR), proposed to move the description of the required elements of a Dust Control Plan from standards section of Rule 310 to administrative requirements section of Rule 310. In so doing, the word "roads" was inadvertently omitted from the description of one of the required elements of a Dust Control Plan. In the draft Notice of Final Rulemaking (NFR), propose to add the word "roads" to new Section 402.3(e). New Section 402.3(e) to read: "Specific surface treatment(s) and/or control measures utilized to control material trackout and sedimentation where unpaved roads and/or access points join paved areas accessible to the public."

Rule 310, Section 402.6: In the Notice of Proposed Rulemaking (NPR), proposed to add the following sentence to new Section 402.6: "At least one primary control measure and one contingency measure must be identified in the Dust Control Plan for all dust generating sources." In the draft Notice of Final Rulemaking (NFR), propose to delete this sentence from new Section 402.6 and to add this sentence to the introduction in re-numbered Section 305-Control Measures For Dust Generating Operations. The introduction in re-numbered Section 305 to read: "When engaged in a dust generating operation, the

owner and/or operator shall install, maintain, and use control measures, as applicable. The owner and/or operator of a dust generating operation shall implement control measures before, after, and while conducting dust generating operations, including during weekends, after work hours, and on holidays. At least one primary control measure and one contingency measure must be identified in the Dust Control Plan for all dust generating operations. Control measures for specific dust generating operations are described in Section 305.1 through Section 305.12 of this rule."

Rule 310, New Section 403: To move Dust Control Plan revisions from standards section to administrative requirements section. To add requirements for Dust Control Plan revisions, if requested by the permittee, to match explanation/criteria in Guidance For Application For Dust Control Permit.

Rule 310, New Section 404: To add Dust Control permit-Block permit requirements from Rule 200. Dust Control permit-Block permit requirements to be deleted from Rule 200 and to reference Rule 310.

Rule 310, New Section 404.1(a) And New Section 404.1(b): In the Notice of Proposed Rulemaking (NPR), proposed new Section 404 .1 - to add Block permit requirements from Rule 200-Permit Requirements; Block permit requirements to be deleted from Rule 200 and to reference Rule 310. In the NPR, new Section 404.1(a) and new Section 404.1(b) referred to "canal road grading". In the draft Notice of Final Rulemaking (NFR), propose to change "canal road grading" to "canal bank and road grading". New Section 404.1(a) and new Section 404.1(b) to read in part as follows: "…including but not limited to, weed control around a prison, canal bank and road grading, and road shoulder grading."

Rule 310, New Section 404.3: In the Notice of Proposed Rulemaking (NPR), proposed new Section 404.3 - to add Block permit requirements from Rule 200-Permit Requirements; Block permit requirements to be deleted from Rule 200 and to reference Rule 310. In the NPR, the intent was that new Section 404.3 replicate the text from Rule 200: "…may submit one permit application covering multiple sites at which construction will commence within 12 months of permit issuance…" The purpose of new Section 404.3 was to make clear to stakeholders that a Block permit will not be granted if the dust generating operation does not commence within one year of issuance. However, with the other revisions proposed in Rule 310, replicating the text from Rule 200 makes new section 404.3 unclear. In the draft Notice of Final Rulemaking (NFR), propose to delete new Section 404.3 and to re-number new Section 404.4 to new Section 404.3.

Rule 310, New Re-Numbered Section 404.3: In the Notice of Proposed Rulemaking (NPR), proposed new Section 404.4 - to add Block permit requirements from Rule 200-Permit Requirements; Block permit requirements to be deleted from Rule 200 and to reference Rule 310. In the NPR, new Section 404.4 referred to "municipalities and/or utilities" while new Section 404.1 referred to "municipalities,

governmental agencies, and utilities". In the draft Notice of Final Rulemaking (NFR), propose to revise new re-numbered Section 404.3 to be consistent with new Section 404.1. In the NFR, to change "municipalities and/or utilities" in new re-numbered Section 404.3 such that it reads "municipalities, governmental agencies, and utilities." New re-numbered Section 404.3 to read: "The Dust Control permit-Block permit will cover crews that work for municipalities, governmental agencies, and utilities, including subcontractors. However, municipalities, governmental agencies, and utilities shall retain overall authority for dust control on the project."

Rule 310, New Section 405: To add administrative requirements/specifics regarding Dust Control permits and Dust Control Plans.

Rule 310, New Section 406: To add administrative requirements/specifics regarding Dust Control permits and Dust Control Plans.

Rule 310, New Section 407: To add administrative requirements/specifics regarding Dust Control permits and Dust Control Plans.

Rule 310, New Section 408: To add administrative requirements/specifics regarding Dust Control permits and Dust Control Plans.

Rule 310, New Section 409: To clarify the permit posting requirements. In most recent version of Rule 310 (revised April 7, 2004), permit posting requirements were in Section 401 - Dust Control Plan Posting.

Rule 310, New Section 410: To clarify the compliance schedule. Compliance schedule in Rule 310 adopted April 7, 2004 addresses making changes to an earthmoving permit and making changes to a Non-Title V permit or a Title V permit. The requirements and/or compliance schedule for making such changes are proposed to be addressed in Section 403. Compliance schedule only lists training, because training cannot be implemented immediately/ quickly. The other updated provisions of Rule 310 can be readily implemented as soon as such provisions are adopted, so no compliance schedule is needed for those provisions.

Rule 310, Section 501: To add "the visible emissions requirements in Section 303 of" and "and with the stabilization requirements in Section 304 of this rule." To specify that test methods are for visible emissions requirements and stabilization requirements.

Rule 310, Section 501.1(a): To add "of these rules." In the Notice of Proposed Rulemaking (NPR), proposed to retain original text of Section 501.1(a): "Opacity observations of a source engaging in dust generating operations shall be conducted in accordance with Appendix C, Section 3-Time Averaged Methods Of Visual Opacity Determination Of Emissions From Dust Generating Operations." In the draft Notice of Final Rulemaking (NFR), propose to delete "a source engaging in" to make Section 501.1(a) consistent with the introductory statements in Section 501.1(b) and Section 501.1(c). Section 501.1(a) to read: "Opacity observations of dust generating operations shall be conducted in accordance with Appendix C, Section 3-Time Averaged Methods Of Visual Opacity Determination Of Emissions From Dust Generating Operations."

Rule 310, New Section 501.1(d): In the Notice of Proposed Rulemaking (NPR), Section 501.1 described test methods to determine compliance with visible emissions requirements for dust generating operations, an unpaved parking lot, and an unpaved haul/access road. In the draft Notice of Final Rulemaking (NFR), propose to add new Section 501.1(d), which will describe the test method to determine compliance with the property line standard - by conducting observations in accordance with EPA Reference Method 22. New Section 501.1(d) to read: "Visible Emissions Beyond The Property Line: Opacity observations of any visible emissions beyond the property line shall be conducted in accordance with EPA Reference Method 22."

Rule 310, Section 501.2(a): To delete "constitutes" and to add "shall constitute." To delete "1" and to add "one."

Rule 310, Section 501.2(b): To delete "1" and to add "one." To delete "constitutes" and to add "shall constitute."

Rule 310, Section 501.2(c): To delete "Open Area And Vacant Lot". To delete "subsection" and to add "Section." To delete "subsection 302.2" and to add "Section 304.3." "Open area and vacant lot" is used in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust.

Rule 310, Section 501.2(c)(1): To delete "visible" and to add "soil." To delete "/Steel Ball."

Rule 310, Section 501.2(c)(7): To add "and equivalent" and to delete "of the EPA."

Rule 310, Section 502.1: To clarify when written records must be kept and what written records must be kept. Proposed text matches Clark County's Section 94-Permitting And Dust Control For Construction Activities.

Rule 310, Section 502.3: To delete "within" and to add "as soon as possible but no later than."

Rule 310, Section 503: To clarify who must maintain records and for how long.

Rule 310, Section 504: To delete "Maricopa County Environmental Services Department" and to add "Maricopa County Air Quality Department."

Rule 310, Section 504.1: To delete "C136-96A" and to add "C136-06". To delete "1996" and to add "2006."

Rule 310, Section 504.2: To delete "D2216-98" and to add "D2216-05." To delete "1998" and to add "2005."

Rule 310, Section 504.3: To delete "D1557-91(1998)" and to add "D1557-02e1". To delete "1998" and to add "2002."

Rule 310, New Section 504.4: In the Notice of Proposed Rulemaking (NPR), Section 504 listed and described test methods adopted by reference. In the draft Notice of Final Rulemaking (NFR), propose to add new Section 504.4, which will list and describe the test method to determine compliance with the property line standard - by conducting observations in accordance with EPA Reference Method 22. New Section 504.4 to read: "EPA Reference Method 22 ("Visual Determination Of Fugitive Emissions From Material Sources And Smoke Emissions From Flares"), 2000 edition."

**Rule 310.01-Fugitive Dust From Open Areas, Vacant Lots, Unpaved Parking Lots, And Unpaved Roadways:**

Rule 310.01, Rule Title: To change "Fugitive Dust From Open Areas, Vacant Lots, Unpaved Parking Lots, And Unpaved Roadways" to "Fugitive Dust From Non-Traditional Sources Of Fugitive Dust."

Rule 310.01, Section 101: To delete "To limit the emission of particulate matter into the ambient air from open areas, vacant lots, unpaved parking lots, and unpaved roadways which are not regulated by Rule 310-Fugitive Dust of these rules, and which do not require a permit nor a Dust Control Plan. The effect of this rule shall be to fine particulate matter ($PM_{10}$) entrained into the ambient air as a result of the impact of human activities by requiring measures to prevent, reduce, or mitigate particulate matter emissions" and to add "To minimize the amount of fugitive dust entrained into the ambient air from non-traditional sources of fugitive dust by requiring measures to prevent, reduce, or mitigate fugitive dust emissions." To clarify the purpose of Rule 310.01. To introduce/use the term "non-traditional

sources of fugitive dust", in order to identify the types of activities that Rule 310.01 is intended to regulate. Using the term "non-traditional sources of fugitive dust" will reflect that Rule 310.01 regulates more than open areas, vacant lots, unpaved parking lots, and unpaved roadways.

Rule 310.01, Section 102: To delete "The provisions of this rule shall apply to open areas, vacant lots, unpaved parking lots, and unpaved roadways which are not regulated by Rule 310-Fugitive Dust of these rules and which do not require a permit nor a Dust Control Plan. In addition, the provisions of this rule shall apply to any open area or vacant lot that is not defined as agricultural land and is not used for agricultural purposes according to Arizona Revised Statutes (A.R.S.) § 42-12151 and § 42-12152. The provisions of this rule shall not apply to normal farm cultural practices according to A.R.S. § 49-457 and A.R.S. § 49-504.4" and to add "102.1 The provisions of this rule shall apply to non-traditional sources of fugitive dust that are conducted in Maricopa County, except for those dust generating operations listed in Section 103 of this rule. 102.2 The provisions of this rule shall apply to any open area or vacant lot that is not defined as agricultural land and is not used for agricultural purposes according to Arizona Revised Statutes (A.R.S.) § 42-12151 and A.R.S. § 42-12152." To clarify the applicability of Rule 310.01. To introduce/use the term "non-traditional sources of fugitive dust", in order to identify the types of activities that Rule 310.01 is intended to regulate. Using the term "non-traditional sources of fugitive dust" will reflect that Rule 310.01 regulates more than open areas, vacant lots, unpaved parking lots, and unpaved roadways.

Rule 310.01, New Section 103: To change format. To add Exemptions:
103.1 The provisions of this rule shall not apply to normal farm cultural practices according to A.R.S. § 49-457 and A.R.S. § 49-504.4.
103.2 The provisions of this rule shall not apply to dust generating operations that are subject to the standards and/or requirements described in Rule 310-Fugitive Dust From Dust Generating Operations of these rules.
103.3 The provisions of this rule shall not apply to emergency activities that may disturb the soil conducted by any utility or government agency in order to prevent public injury or to restore critical utilities to functional status."
103.4 An area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in this rule. To move this provision from re-numbered Section 207.
103.5 Establishing initial landscapes without the use of mechanized equipment, conducting landscape maintenance without the use of mechanized equipment, and playing on or maintaining a field used for non-motorized sports shall not be considered a dust generating operation. However, establishing initial landscapes without the use of mechanized equipment and conducting landscape maintenance without

the use of mechanized equipment shall not include grading, or trenching, performed to establish initial landscapes or to redesign existing landscapes. This provision relates-to new Section 208.
103.6 Fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III (Control Of Air Contaminants) of these rules. To move this provision from re-numbered Section 213.

Rule 310.01, New Section 201: To add "Animal Waste - Any animal excretions and mixtures containing animal excretions." Definition matches definition used in San Joaquin's Rule 4570-Confined Animal Facilities.

Rule 310.01, New Section 202: To add "Area A - As defined in A.R.S. § 49-541(1), the area in Maricopa County delineated as follows: Township 8 North, Range 2 East and Range 3 East; Township 7 North, Range 2 West through Range 5 East; Township 6 North, Range 5 West through Range 6 East; Township 5 North, Range 5 West through Range 7 East; Township 4 North, Range 5 West through Range 8 East; Township 3 North, Range 5 West through Range 8 East; Township 2 North, Range 5 West through Range 8 East; Township 1 North, Range 5 West through Range 7 East; Township 1 South, Range 5 West through Range 7 East; Township 2 South, Range 5 West through Range 7 East; Township 3 South, Range 5 West through Range 1 East; Township 4 South, Range 5 West through Range 1 East."

Rule 310.01, New Section 203: To add "Area Accessible To The Public - Any parking lot or public roadway that is accessible to public travel primarily for purposes unrelated to the dust generating operation." Definition matches definition in Rule 310. In the Notice of Proposed Rulemaking (NPR), proposed to add the definition of area accessible to the public, which was proposed to read: "Any parking lot or public roadway that is accessible to public travel primarily for purposes unrelated to the dust generating operation." In the draft Notice of Final Rulemaking (NFR) instead-of using the term "accessible" in the definition of area accessible to the public, propose to delete "is accessible to" and to add "can be approached, entered, or used for." The definition of area accessible to the public to read: "Any parking lot or public roadway that can be approached, entered, or used for public travel primarily for purposes unrelated to the dust generating operation."

Rule 310.01, Re-Numbered Section 204: To change format of definition of bulk material and to list only once materials that are listed twice (i.e., earth and soil).

Rule 310.01, Section 206: To delete "Feedlots And/Or Livestock Areas - Any area on which an operation directly related to feeding animals, displaying animals, racing animals, exercising animals, and/or for any other such activity exists. To use and define the term "livestock operations."

Rule 310.01, Re-Numbered Section 207: To delete "(or material placed thereupon) which" and to add "or material placed on the earth's surface that". To delete "thereby increasing the potential for the emission of fugitive dust" and to add "if the potential for the emission of fugitive dust is increased by the movement, destabilization, or modification." To move "For the purpose of this rule, an area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in Section 300 of this rule" to New Section 103.4. To match definition of disturbed surface area to definition of disturbed surface area in Senate Bill 1552. Senate Bill 1552 reads, in part, as follows: A.R.S. § 49-474.01(A)(11) In a county with a population of two million or more persons or any portion of a county within an area designated by the Environmental Protection Agency as a serious $PM_{10}$ nonattainment area or a maintenance area that was designated as a serious $PM_{10}$ nonattainment area, no later than March 31, 2008, adopt rule provisions, and, no later than October 1, 2008, commence enforcement of those rule provisions regarding the stabilization of disturbed surfaces of vacant lots that include the following: "Disturbed surface" means 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. Vacant lots do not include any site of disturbed surface area that is subject to a permit issued by the Control Officer that requires control of $PM_{10}$ emissions from dust generating operations."

Rule 310.01, New Section 208: To add "Dust Generating Operation - Any activity capable of generating fugitive dust, including but not limited to, the following activities: 208.1 Land clearing, maintenance, and land cleanup using mechanized equipment 208.2 Earthmoving 208.3 Weed abatement by discing or blading 208.4 Excavating 208.5 Construction 208.6 Demolition 208.7 Bulk material handling (e.g., bulk material hauling and/or transporting, bulk material stacking, loading, and unloading operations) 208.8 Storage and/or transporting operations (e.g., open storage piles, bulk material hauling and/or transporting, bulk material stacking, loading, and unloading operations) 208.9 Operation of any outdoor equipment 208.10 Operation of motorized machinery 208.11 Establishing and/or using staging areas, parking areas, material storage areas, or access routes to and from a site 208.12 Establishing and/or using unpaved haul/access roads to, from, and within a site 208.13 Disturbed surface areas associated with a site 208.14 Installing initial landscapes using mechanized equipment." Definition matches definition in Rule 310. New Section 208 relates-to new Section 103.5.

Rule 310.01, New Section 210: To add "Emergency - A situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include any noncompliance due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error." In the Notice of Propose Rulemaking (NPR), the phrase "technology-based emission limitation under the permit" was included in the proposed definition of emergency. In the draft Notice of Final Rulemaking (NFR), propose to delete the phrase "technology-based emission limitation under the permit" and to add the phrase "limitation in this rule." New Section 210 - definition of emergency to read: "A situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a limitation in this rule, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include any noncompliance due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error."

Rule 310.01, New Section 211: To add "Emergency Activity - Repairs that are a result of an emergency which prevents or hinders the provision of electricity, the distribution/collection of water, and the availability of other utilities due to unforeseen circumstances that are beyond the routine maintenance and repair due to normal wear conducted by a utility or municipality."

Rule 310.01, New Section 212: To add "Feed Lane Access Areas - Roads providing access from the feed preparation areas to and including feed land areas at a livestock activity. These access roads are typically used to distribute feed from feed trucks to the animals."

Rule 310.01, Re-Numbered Section 213: To move "For the purpose of this rule, fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III (Control Of Air Contaminants) of these rules" to New Section 103.6.

Rule 310.01, New Section 214: To add "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. A gravel pad shall consist of one inch to 3 inches rough diameter, clean, well-graded gravel or crushed rock. Minimum dimensions must

be 30 feet wide by 3 inches deep, and, at minimum, 50 feet long or the length of the longest haul truck, whichever is greater." Definition matches definition used in Rule 310.

Rule 310.01, New Section 215: To add "Grizzly - 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." Definition matches definition used in Rule 310.

Rule 310.01, New Section 216: To add "Livestock Activities - Any activity directly related to feeding animals, displaying animals, racing animals, exercising animals, and/or for any other such activity, including but not limited to, livestock arenas, horse arenas, and feed lots." Definition matches definition used in South Coast's Rule 1186-$PM_{10}$ Emissions From Paved And Unpaved Roads And Livestock Operations.

Rule 310.01, New Section 218: To add "Non-Traditional Source Of Fugitive Dust - A source of fugitive dust that is located at a source that does not require any permit under these rules. The following non-traditional sources of fugitive dust are subject to the standards and/or requirements described in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust of these rules: 218.1 Vehicle use in open areas and vacant lots; 218.2 Open areas and vacant lots; 218.3 Unpaved parking lots; 218.4 Unpaved roadways (including alleys); 218.5 Livestock activities; 218.6 Erosion-caused deposition of bulk materials onto paved surfaces; 218.7 Easements, rights-of-way, and access roads for utilities (electricity, natural gas, oil, water, and gas transmission)." To introduce/use the term "non-traditional sources of fugitive dust", in order to identify the types of activities that Rule 310.01 is intended to regulate. Using the term "non-traditional sources of fugitive dust" will reflect that Rule 310.01 regulates more than open areas, vacant lots, unpaved parking lots, and unpaved roadways.

Rule 310.01, Re-Numbered Section 221: To delete "Section 211.1" and to add "Section 221.1." To delete "Section 211.4" and to add "Section 221.3." To delete "adjoining a developed or partially developed residential, industrial, institutional, governmental, or commercial area." To delete "A tract of land, in the $PM_{10}$ nonattainment area, adjoining agricultural property."

Rule 310.01, New Section 225: To add "Property Line - The boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies." Definition matches definition used in South Coast's Rule 403-Fugitive Dust.

Rule 310.01, New Section 227: To add "Trackout/Carryout – 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." Definition matches definition used in Rule 310.

Rule 310.01, New Section 228: To add "Trackout Control Device - A gravel pad, grizzly, wheel wash system, or a paved area, located at the point of intersection of an unpaved area and a paved area accessible to the public that controls or prevents vehicular trackout." Definition matches definition used in Rule 310.

Rule 310.01, New Section 229: To add Unpaved Access Connections - Any unpaved road connection with a paved pubic road." Definition matches definition used in South Coast's Rule 1186-$PM_{10}$ Emissions From Paved And Unpaved Roads And Livestock Operations.

Rule 310.01, Re-Numbered Section 230: To delete "larger than 5,000 square feet" and to add "material handling", "and equipment", and "An unpaved parking lot includes, but is not limited to, automobile impound yards, wrecking yards, automobile dismantling yards, salvage yards, material handling yards, and storage yards. For the purpose of this definition, maneuvering shall not include military maneuvers or exercises conducted on federal facilities." To change definition of "unpaved parking lot" to match Clark County's definition of "unpaved parking lot" in Section 92-Fugitive Dust From Unpaved Parking Lots; Material Handling And Storage Yards; And Vehicle And Equipment Storage Yards.

Rule 310.01, Re-Numbered Section 231: To add "An unpaved roadway (including alleys) includes designated or opened trail systems and service roads regardless of surface composition and any other property dedicated or otherwise reserved for public or private street uses, as evidence by a recorded document, or having thereon a public easement for such use." Propose to add to the definition of unpaved roadway (including alleys) "any other property dedicated or otherwise reserved for public or private street uses, as evidenced by a recorded document, or having thereon a public easement for such use". When developing proposed new ordinance P-28-Off-Road Vehicle Use In Unincorporated Areas Of Maricopa County, one of the main categories in which public comment and discussion were focused included the definition of road or highway. Stakeholders expressed the following concerns: clarify where designated and open trails fall, address service roads, and address private roads. In response to those concerns, the Maricopa County Air Quality Department (MCAQD) reviewed state statutes, the Code of Federal Regulations, and the Maricopa County Zoning Ordinance and consulted with a group of public and trust Land Managers and developed the following language to supplement the definition of road or highway that the MCAQD initially proposed: "For the purposes of this definition the term "road or highway" also includes designated or opened trail systems, service roads

regardless of surface composition, and any other property dedicated or otherwise reserved for public or private street uses, as evidenced by a recorded document, or having thereon a public easement for such use." To maintain consistency among rules and ordinances in the Maricopa County Air Pollution Control Regulations, the definition of unpaved roadway (including alleys) in Rule 310.01 is now proposed to read: "A road that is not paved and that is owned by Federal, State, county, municipal, or other governmental or quasi-governmental agencies. An unpaved roadway (including alleys) includes designated or opened trail systems and service roads regardless of surface composition and any other property dedicated or otherwise reserved for public or private street uses, as evidenced by a recorded document, or having thereon a public easement for such use."

Rule 310.01, Re-Numbered Section 232: To delete "Section 211" and to add "Section 220."

Rule 310.01, New Section 301: To add "General Requirements For Non-Traditional Sources Of Fugitive Dust:

301.1 An owner and/or operator of a non-traditional source of fugitive dust shall be subject to the standards and/or requirements described in this rule. Failure to comply with any such standards and/or requirements is deemed a violation of this rule.

301.2 When an owner and/or operator of a non-traditional source of fugitive dust fails to stabilize disturbed surfaces of vacant lots as required in Section 302.4 and Section 302.5 of this rule, the Control Officer shall commence enforcement of those rule provisions regarding the stabilization of disturbed surfaces of vacant lots that include the following:

a. Reasonable written notice to the owner or the owner's authorized agent or the owner's statutory agent that the unpaved disturbed surface of a vacant lot is required to be stabilized. The notice shall be given not less than 30 days before the day set for compliance and shall include a legal description of the property and the estimated cost to the county for the stabilization if the owner does not comply. The notice shall be either personally served or mailed by certified mail to the owner's statutory agent, to the owner at the owner's last known address or to the address to which the tax bill for the property was last mailed.

b. Authority to enter upon any said land/property where such non-traditional source of fugitive dust exists/where such disturbed surface area exists and to take remedial and/or corrective action as may be deemed appropriate to cope with and relieve, reduce, remedy, and/or stabilize such non-traditional source of fugitive dust/such disturbed surface area. Any cost incurred in connection with any such remedial or corrective action by the Maricopa County Air Quality Department or any person acting for the Maricopa County Air Quality Department shall be reimbursed by the owner and/or operator of such non-traditional source of fugitive dust."

To clarify the standards to which an owner and/or operator is subject. To match Clark County's Section 94-Permitting And Dust Control For Construction Activities and Senate Bill 1552. Senate Bill

1552 reads, in part, as follows: A.R.S. § 49-474.01(A)(11) In a county with a population of two million or more persons or any portion of a county within an area designated by the Environmental Protection Agency as a serious $PM_{10}$ nonattainment area or a maintenance area that was designated as a serious $PM_{10}$ nonattainment area, no later than March 31, 2008, adopt rule provisions, and, no later than October 1, 2008, commence enforcement of those rule provisions regarding the stabilization of disturbed surfaces of vacant lots that include the following: "Disturbed surface" means 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. Vacant lots do not include any site of disturbed surface area that is subject to a permit issued by the Control Officer that requires control of $PM_{10}$ emissions from dust generating operations. (a) Reasonable written notice to the owner or the owner's authorized agent or the owner's statutory agent that the unpaved disturbed surface of a vacant lot is required to be stabilized. The notice shall be given not less than 30 days before the day set for compliance and shall include a legal description of the property and the estimated cost to the county for the stabilization if the owner does not comply. The notice shall be either personally served or mailed by certified mail to the owner's statutory agent, to the owner at the owner's last known address or to the address to which the tax bill for the property was last mailed. (b) Authority for the county to enter the lot to stabilize the disturbed surface at the expense of the owner if the vacant lot has not been stabilized by the day set for compliance. (c) Methods for stabilization of the disturbed surface of the vacant lot, the actual cost of stabilization, and the fine that may be imposed for a violation of this section.

Rule 310.01, New Section 302: To add "Control Measures For Non-Traditional Sources Of Fugitive Dust." To clarify the standards for control measures to which an owner and/or operator is subject.

Rule 310.01, New Section 302.1: To add "When engaged in the activities described in Section 302.4 through Section 302.10 of this rule, the owner and/or operator of a non-traditional source of fugitive dust shall implement control measures as described in Section 302.4 through Section 302.10 of this rule, as applicable."

Rule 310.01, New Section 302.2: To add "Control measures shall be implemented to achieve the visible emissions requirements, as required for each activity and the compliance determination in Section 501 of this rule."

Rule 310.01, New Section 302.3: To add "Failure to implement control measures as required by this rule, as applicable, and/or failure to maintain stabilization of a non-traditional source of fugitive dust

with adequate surface crusting to prevent wind erosion as measured by the requirements in this rule shall be deemed a violation of this rule."

Rule 310.01, Re-Numbered Section 302.4: To change format. To add visible emissions requirements. To change "If open areas and vacant lots are 0.10 acre or larger and have a cumulative of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, then the owner and/or operator of such open areas and vacant lots shall implement one of the control measures described in Section 301.1 of this rule within 60 calendar days following the initial discovery of vehicle use on open areas and vacant lots" to "If open areas and vacant lots are 0.10 acre (4,356 square feet) or larger and have a cumulative of 500 square feet or more that are disturbed by being driven over and/or used by motor vehicles, by off-road vehicles, or for material dumping, then the owner and/or operator shall implement one or more of the control measures described in Section 302.4(b) of this rule within 60 calendar days following the initial discovery by the Control Officer of disturbance or vehicle use on open areas and vacant lots." To add posting provisions as a control measure for preventing motor vehicle and/or off-road vehicle trespassing, parking, and/or access: "Prevent motor vehicle and/or off-road vehicle trespassing, parking, and/or access by posting that consists of one of the following: (a) A sign written in compliance with ordinance(s) of local, County, State, or Federal sign standards. (b) An order of a government land management agency. (c) Most current maps approved by a government land management agency. (d) Virtual posting a government land management agency."

Rule 310.01, Re-Numbered Section 302.5: To change format. To add visible emissions requirements.

Rule 310.01, Re-Numbered Section 302.5(c)(1): To change "If open areas and vacant lots have 0.5 acre or more of disturbed surface area and remain unoccupied, unused, vacant, or undeveloped for more than 15 days, then the owner and/or operator of such open areas and vacant lots shall implement one of the control measures described in Section 302.1 of this rule within 60 calendar days following the initial discovery of the disturbance on the open areas and vacant lots" to "If open areas and vacant lots are 0.10 acre (4,356 square feet) or larger and have a cumulative of 500 square feet or more that are disturbed and if such disturbed area remains unoccupied, unused, vacant, or undeveloped for more than 15 days, then the owner and/or operator shall implement one or more of the control measures described in Section 302.5(b) of this rule within 60 calendar days following the initial discovery by the Control Officer of the disturbance on the open areas and vacant lots." The specifications (i.e., acreage and square footage dimensions) for when an area would have-to comply with Section 302.5-Open Areas And Vacant Lots are to be revised to match the specifications (i.e., acreage and square footage dimensions) for when an area would have-to comply with Section 302.4-Vehicle Use In Open Areas And Vacant Lots, since both sections address open areas and vacant lots.

Rule 310.01, Re-Numbered Section 302.6: To change format. To add visible emissions requirements. To add trackout control device requirement and water as control measures. To add control measures for cleaning-up trackout.

Rule 310.01, Re-Numbered Section 302.6(c)(1): To change "The owner and/or operator of an unpaved parking lot shall implement one of the control measures described in Section 303.1 of this rule on any surface area(s) of the lot on which vehicles enter, park, and exit. For unpaved parking lots that are utilized intermittently, for a period of 35 days or less during the calendar year, the owner and/or operator shall implement one of the control measures described in Section 303.1 of this rule, during the period that the unpaved parking lots are utilized for vehicle parking" to "The owner and/or operator of an unpaved parking lot shall implement one of the control measures described in Section 302.6(b) of this rule [(i.e., pave; apply dust suppressants other than water and 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 motor vehicles that traverse the site; uniformly apply and maintain surface gravel; or apply water and 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 motor vehicles that traverse the site.)] on any surface area(s) of the lot on which vehicles enter, park, and exit. (a) If an unpaved parking lot is utilized for a period of 35 days or less during the calendar year, the owner and/or operator shall implement one or more of the control measures described in Section 302.6(b) of this rule [(i.e., pave; apply dust suppressants other than water and 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 motor vehicles that traverse the site; uniformly apply and maintain surface gravel; or apply water and 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 motor vehicles that traverse the site)] during the period that the unpaved parking lot is utilized for vehicle parking and shall restrict vehicle access to only those areas upon which a control measure has been implemented. (b) If an unpaved parking lot is utilized for more than 35 days during the calendar year, the owner and/or operator shall implement one or more of the control measures described in Section 302.6(b)(1) through Section 302.6(b)(3) of this rule [(i.e., pave; apply dust suppressants other than water and 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 motor vehicles that traverse the site; or uniformly apply and maintain surface gravel)] during the period that the unpaved parking lot is utilized for vehicle parking and shall restrict vehicle access to only those areas upon which a control measure has been implemented."

Rule 310.01, Re-Numbered Section 302.6(c)(2): To add "Control measure(s) shall be considered effectively implemented when the unpaved parking lot achieves the compliance determinations described in Section 302.6(a) of this rule."

Rule 310.01, Re-Numbered Section 302.6(c)(3): To add "If trackout occurs, the owner and/or operator shall repair and/or replace the control measure(s) and shall clean-up immediately such trackout from paved areas accessible to the public including curbs, gutters, and sidewalks when trackout extends a cumulative distance of 25 linear feet or more and at the end of the day for all other trackout."

Rule 310.01, Re-Numbered Section 302.6(c)(4): To add "Parking, maneuvering, ingress, and egress areas at developments other than residential buildings with four or fewer units shall be maintained with one or more of the following dustproof paving methods: (a) Asphaltic concrete. (b) Cement concrete. (c) Penetration treatment of bituminous material and seal coat of bituminous binder and a mineral aggregate. (d) A stabilization method approved in writing by the Control Officer and the Administrator." To match Senate Bill 1552. Senate Bill 1552 reads, in part, as follows: A.R.S. § 49-474.01(A)(5) In a county with a population of two million or more persons or any portion of a county in an area designated by the Environmental Protection Agency as a serious $PM_{10}$ nonattainment area or a maintenance area that was designated as a serious $PM_{10}$ nonattainment area, no later than March 31, 2008, adopt or amend codes or ordinances and, no later than October 1, 2008, commence enforcement of those codes or ordinances as necessary to require that parking, maneuvering, ingress, and egress areas at developments other than residential buildings with four or fewer units are maintained with one or more of the following dustproof paving methods: (a) Asphaltic concrete. (b) Cement concrete. (c) Penetration treatment of bituminous material and seal coat of bituminous binder and a mineral aggregate. (d) A stabilization method approved by the county.

Rule 310.01, Re-Numbered Section 302.6(c)(5): To add "Parking, maneuvering, ingress, and egress areas 3,000 square feet or more in size at residential buildings with four or fewer units shall be maintained with a paving or stabilization method authorized by the county by code, ordinance, or permit." To match Senate Bill 1552. Senate Bill 1552 reads, in part, as follows: A.R.S. § 49-474.01(A)(6) In a county with a population of two million or more persons or any portion of a county in an area designated by the Environmental Protection Agency as a serious $PM_{10}$ nonattainment area or a maintenance area that was designated as a serious $PM_{10}$ nonattainment area, no later than March 31, 2008, adopt or amend codes or ordinances and, no later than October 1, 2009, commence enforcement of those codes or ordinances as necessary to require that parking, maneuvering, ingress, and egress areas 3,000 square feet or more in size at residential buildings with four or fewer units are maintained with a paving or stabilization method authorized by the county by code, ordinance, or permit.

Rule 310.01, Re-Numbered Section 302.7: To change format. To add requirement to conduct vehicle counts/traffic counts.

Rule 310.01, New Section 302.7(a): Propose to delete "a non-traditional source of fugitive dust that involves" from new Section 302.7(a). New Section 302.7(a) is proposed to read: "The owner and/or operator of unpaved roadways (including alleys) shall not cause or allow visible fugitive dust emissions to exceed 20% opacity and either Section 302.7(a)(1) or Section 302.7(a)(2) of this rule."

Rule 310.01, New Section 302.7(c)(1): To add "If a person allows 150 vehicle trips or more per day on an unpaved roadway (including an alley) in the $PM_{10}$ nonattainment area, then such person shall first implement one of the control measures described in Section 302.7(b) of this rule."

Rule 310.01, New Section 302.7(c)(2): To add "A person, who allows 150 vehicle trips or more per day on an unpaved roadway (including an alley) in the $PM_{10}$ nonattainment area, shall be responsible for conducting vehicle counts/traffic counts to determine if 150 vehicle trips or more per day occur on an unpaved roadway (including an alley). Two separate 24-hour traffic counts shall be conducted. The average vehicle counts/traffic counts on the highest trafficked days shall be recorded and provided to the Control Officer in writing within 60 days of verbal or written request by the Control Officer." Propose to delete "two separate 24-hour traffic counts shall be conducted" and to add "A traffic count shall measure vehicular traffic over a 48-hour period, which may consist of two non-consecutive 24-hour periods. Vehicular traffic shall be measured continuously during each 24-hour period." New Section 302.7(c)(2) is now proposed to read: "A person, who allows 150 vehicle trips or more per day to use an unpaved roadway (including an alley) in the $PM_{10}$ nonattainment area, shall be responsible for conducting vehicle counts/traffic counts to determine if 150 vehicle trips or more per day occur on an unpaved roadway (including an alley). A traffic count shall measure vehicular traffic over a 48-hour period, which may consist of two non-consecutive 24-hour periods. Vehicular traffic shall be measured continuously during each 24-hour period. The average vehicle counts/traffic counts on the highest trafficked days shall be recorded and provided to the Control Officer in writing within 60 days of verbal or written request by the Control Officer."

Rule 310.01, New Section 302.7(c)(3)(a): Propose to change "Section 302.8(a)" to "Section 302.7(a)."

Rule 310.01, New Section 302.7(c)(3)(b): Control measure(s) shall be considered effectively implemented under the following conditions: (b) When one of the control measures described in Section 302.7(b) of this rule is implemented on 5 miles of unpaved roadways (including alleys) having vehicle traffic of 150 vehicle trips or more per day within one calendar year beginning in calendar year of 2008. If the control measure described in Section 302.7(b)(2) of this rule is implemented, the

unpaved roadways (including alleys) must be maintained so as to comply with Appendix C of these rules."

Rule 310.01, Re-Numbered Section 302.8: To change format. To add visible emissions requirements. To add control measures for cleaning-up trackout. To change "feedlots and/or livestock areas" to "livestock activities."

Rule 310.01, New Section 302.8(b): To add "Control Measures: (1) For unpaved access connections: (a) Apply and maintain dust suppressants other than water; or (b) Apply and maintain pavement, gravel (maintained to a depth of four inches), or asphaltic roadbase. (2) For unpaved feed lane access areas: (a) Apply and maintain dust suppressants other than water; or (b) Apply and maintain pavement, gravel (maintained to a depth of four inches), or asphaltic roadbase. (3) For bulk material hauling, including animal waste, off-site and crossing and/or accessing a paved area accessible to the public: (a) Load all vehicles used to haul bulk material, including animal waste, such that the freeboard is not less than three inches; (b) Prevent spillage or loss of bulk material, including animal waste, from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); (c) Cover cargo compartment with a tarp or other suitable closure; and (d) 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 motor vehicles that traverse the site. (4) For corrals, pens, and arenas: (a) Apply water; (b) Install shrubs and/or trees within 50 feet to 100 feet of corrals, pens, and arenas; (c) Scrape and/or remove manure; (d) Apply a fibrous layer (i.e., wood chips) in working areas; or (e) Apply and maintain an alternative control measure approved in writing by the Control Officer and the Administrator." In Rule 310.01, New Section 302.8(b)(4), propose to add three control measures for corrals, pens, and arenas. Proposed three control measures are similar to control measures included in "Handbook For Conservation Management Practices For San Joaquin Valley-Minimizing Agricultural PM10 From Animal Feeding Operations (AFOs)-Dairies And Feedlots" dated May 2004.

Rule 310.01, New Section 302.8(c)(2): To add "Control measure(s) shall be considered effectively implemented when the livestock activities achieve the compliance determinations described in Section 302.8(a) of this rule."

Rule 310.01, New Section 302.8(c)(3): To add "If trackout occurs, the owner and/or operator shall repair and/or replace the control measure(s) and shall clean-up immediately such trackout from paved areas accessible to the public including curbs, gutters, and sidewalks when trackout extends a cumulative distance of 25 linear feet or more and at the end of the day for all other trackout."

Rule 310.01, Re-Numbered Section 302.9: To change format.

Rule 310.01, Re-Numbered Section 302.9(b): To delete "Opacity Limitation: For the purpose of this rule, control measures shall be considered effectively implemented when opacity observations for fugitive dust emissions from erosion-caused deposition of bulk materials onto paved surfaces do not exceed 20% opacity, as described in Appendix C, Section 2.1 (Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots) of these rules" and to add "Additional Requirements: (1) In the event that erosion-caused deposition of bulk materials or other materials occurs on any adjacent paved roadway, paved parking lot, curb, gutter, or sidewalk, the owner and/or operator of the property from which the deposition eroded shall implement both of the control measures described in Section 302.9(a) of this rule. (2) Failure to comply with both of the control measures described in Section 302.9(a) of this rule shall constitute a violation of this rule."

Rule 310.01, New Section 302.10: To change format. To add requirement to conduct vehicle counts/traffic counts. To add control measure "install locked gates at each entry point". To change heading "Easements, Rights-Of-Way, And Access Roads For Utilities (Electricity, Natural Gas, Oil, Water, And Gas Transmission)" to "Easements, Rights-Of-Way, And Access Roads For Utilities (Transmission Of Electricity, Natural Gas, Oil, Water, And Gas)." In the Notice of Proposed Rulemaking, proposed to change "If an owner and/or operator allows 150 vehicles or more per day to use an easement, right-of-way, and access road for utilities (electricity, natural gas, oil, water, and gas transmission) in the $PM_{10}$ nonattainment area, then such owner and/or operator shall first implement one of the control measures described in Section 307.1 of this rule" to "The owner and/or operator of a non-traditional source of fugitive dust that involves easements, rights-of-way, and access roads for utilities (transmission of electricity, natural gas, oil, water, and gas) that are used by 130 vehicle trips or more per day in Area A shall be subject to the stabilization requirements described in Section 302.10(a) of this rule and unless otherwise specified and/or required, comply with one of the control measures described in Section 302.10(b) of this rule and the additional requirements described in Section 302.10(c) of this rule." In the draft Notice of Final Rulemaking (NFR), propose to change "130 vehicle trips or more per day in Area A" to "150 vehicle trips or more per day in the PM10 nonattainment area."

Rule 310.01, Re-Numbered Section 302.10(b)(2): To change "Apply dust suppressants, in compliance with the stabilization and opacity limitations described in Section 307.2 of this rule" to "Control Measures: (2) Apply dust suppressants other than water."

Rule 310.01, New Section 302.10(b)(4): To add "Control Measures: (4) Install locked gates at each entry point."

Rule 310.01, Re-Numbered Section 302.10(c): To change "For the purpose of this rule, control measures shall be considered effectively implemented when stabilization and opacity observations for fugitive dust emissions from easements, rights-of-way, and access roads for utilities (electricity, natural gas, oil, water, and gas transmission) do not exceed 20% opacity and meet one of the following, as determined by Appendix C, Section 2.1 (Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots) of these rules: a. Silt loading is not equal to or greater than 0.33 $oz/ft^2$; or b. Silt content does not exceed 6%" to "Additional Requirements: (1) If an owner and/or operator allows 150 vehicle trips or more per day to use an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas) in the $PM_{10}$ nonattainment area, then such owner and/or operator shall first implement one of the control measures described in Section 302.10(b) of this rule. (2) A person, who allows 150 vehicle trips or more per day to use an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas) in the $PM_{10}$ nonattainment area, shall be responsible for conducting vehicle counts/traffic counts to determine if 150 vehicle trips or more per day occur on an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas). Such person shall provide to the Control Officer written results of such vehicle counts/traffic counts within 60 days of verbal or written request by the Control Officer. (3) Control measure(s) shall be considered effectively implemented when the easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas) achieves the compliance determinations described in Section 302.10(a) of this rule."

Rule 310.01, Section 501: To add opacity observations. To change title of test method referenced in Appendix C, Section 2.3 to "Test Methods For Stabilization-Soil Crust Determination -The Drop Ball Test. To match Clark County's Section 94-Permitting And Dust Control For Construction Activities. To delete "Stabilization Observations" and to add "Compliance Determination: To determine compliance with this rule, the following test methods shall be followed."

Rule 310.01, New Section 501.1: To add "Opacity Observations: a. Opacity observations to measure visible emissions shall be conducted in accordance with the techniques specified in EPA Reference Method 203B (Visual Determination Of Opacity Of Emissions From Stationary Sources For Time-Exception Regulations). Emissions shall not exceed the applicable opacity standards of this rule for a period aggregating more than three minutes in any 60-minute period. b. Opacity observations to determine compliance with Sections 302.6, 302.7, 302.8(a)(1), 302.8(a)(2), and 302.10 of this rule shall be conducted in accordance with the techniques specified in Appendix C (Fugitive Dust Test Methods) of these rules."

Rule 310.01, Re-Numbered Section 501.3(a): To delete "visible" and to add "soil." To delete "/Steel Ball."

Rule 310.01, Section 502: To delete "within" and to add "as soon as possible but no later than."

Rule 310.01, Section 503: To delete "one year" and to add "two years."

**Appendix C-Fugitive Dust Test Methods:**

Appendix C, Section 2.2: To delete "and include or eliminate it from the total size assessment of disturbed surface area(s) depending upon test method results."

Appendix C, Section 2.3: To change heading "Visible Crust Determination" to "Soil Crust Determination (The Drop Ball Test)."

Appendix C, Section 2.3.1: To delete "where a visible crust exists, drop" and to add "drop". To add "(0.56-0.60 ounce)." To delete "30 centimeters (one foot)" and to add "one-foot." To delete "visible crust test method" and to add "Drop Ball Test." To add "or project site". To delete "which" and to add "that." To delete "vacant lot." To add "Determination Of Threshold Friction Velocity (TFV)."

Appendix C, Section 2.3.3: To add "Randomly select each representative disturbed surface for the Drop Ball Test by using a blind "over the shoulder" toss of a throwable object (e.g., a metal weight with survey tape attached). Using the point of fall as the lower left-hand corner, measure a one-foot square area." To delete "a survey area that measures 1 foot by 1 foot and that represents a random portion of the overall disturbed conditions of the site" and to add "the one-foot by one-foot square survey area, using a consistent pattern across the survey area." To delete "Visible Crust Determination" and to add "Drop Ball Test."

Appendix C, Section 2.3.4: To delete "visible crust test" and to add "Drop Ball Test." To delete "random." To add "using the random selection method set forth in subsection 2.3.3 of this appendix."

Appendix C, Section 3: To change heading "Time Average Methods Of Visual Opacity Determination Of Emissions From Dust Generating Operations" to "Visual Opacity Determination Of Emissions From Dust Generating Operations."

Appendix C, Section 3.1: To delete "A time average regulation is any regulation that requires averaging visible emission data to determine the opacity of visible emissions over a specific time period."

Appendix C, Section 3.3.1: To delete "Procedures For Emissions From Stationary Sources. These procedures are not applicable to this section."

Appendix C, Re-Numbered Section 3.3.1(f): To delete "with the opacity standard described in Rule 310 of these rules."

Appendix C, Re-Numbered Section 3.3.2(g)": To delete "with the opacity standard described in Rule 310 of these rules."

Appendix C, Section 4: To add heading "Visual Opacity Determination Of Emissions From Livestock Activities-Corrals, Pens, And Arenas."

Appendix C, Section 4.1: To add "Applicability. This method is applicable for the determination of opacity of fugitive dust plumes from livestock activities-corrals, pens, and arenas."

Appendix C, Section 4.2: To add "Principle. The opacity of emissions from livestock activities-corrals, pens, and arenas is determined visually by an observer qualified according to Section 3.4 of this appendix."

Appendix C, Section 4.3: To add "Procedures. An observer qualified, in accordance with Section 3.4 of this appendix, shall use the following procedures for visually determining the opacity of emissions:"

Appendix C, Section 4.3.1: To add: "Position. Stand at a position at least 5 meters from the livestock activities-corrals, pens, and arenas in order to provide a clear view of the emissions with the sun oriented in the 140° sector to the back. Consistent as much as possible with maintaining the above requirements, make opacity observations from a position such that the line of sight is approximately perpendicular to the plume and wind direction. As much as possible, if multiple plumes are involved, do not include more than one plume in the line of sight at one time."

Appendix C, Section 4.3.2: To add "Field Records. Record the name of the site, method of control used, if any, observer's name, certification data and affiliation, and a sketch of the observer's position relative to the livestock activity-corrals, pens, and arenas. Also, record the time, estimated distance to the livestock activity-corrals, pens, and arenas location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), observer's position relative to the livestock activity-corrals, pens, and arenas, and color of the plume and type of background on the visible emission observation from when opacity readings are initiated and completed."

Appendix C, Section 4.3.3: To add "Observations. Make opacity observations, to the extent possible, using a contrasting background. For storage piles, make opacity observations approximately 1 meter above the surface from which the plume is generated. The initial observation should begin immediately after a plume has been created above the surface involved. Do not look continuously at the plume, but instead observe the plume momentarily at 15-second intervals."

Appendix C, Section 4.3.4: To add "Recording Observations. Record the opacity observations to the nearest 5% every 15 seconds on an observational record sheet. If a multiple plume exists at the time of an observation, do not record an opacity reading. Mark an "x" for that reading. If the livestock activity-corrals, pens, and arenas ceases operating, mark an "x" for the 15-second interval reading. Readings identified as "x" shall be considered interrupted readings."

Appendix C, Section 4.3.5: To add "Data Reduction. Within any 60-minute period, count at least three minutes that are greater than 20% opacity. If at least 13 readings are greater than 20% opacity, the livestock activity-corrals, pens, and arenas is not in compliance. Readings immediately preceding and following interrupted readings shall be deemed consecutive and in no case shall two sets overlap, resulting in multiple violations."

## 7. Demonstration of compliance with A.R.S. § 49-112:

Under A.R.S. § 49-479(C), a county may not adopt a rule or ordinance that is more stringent than the rules adopted by the Director of the Arizona Department of Environmental Quality (ADEQ) for similar sources unless it demonstrates compliance with the requirements of A.R.S. § 49-112.

**A.R.S. § 49-112 (A)**

When authorized by law, a county may adopt a rule, ordinance, or other regulation that is more stringent than or in addition to a provision of this title or rule adopted by the director or any board or commission authorized to adopt rules pursuant to this title if all the following conditions are met:

1. The rule, ordinance or other regulation is necessary to address a peculiar local condition;
2. There is credible evidence that the rule, ordinance or other regulation is either:
   (a) Necessary to prevent a significant threat to public health or the environment that results from a peculiar local condition and is technically and economically feasible
   (b) Required under a federal statute or regulation, or authorized pursuant to an intergovernmental agreement with the federal government to enforce federal statutes or regulations if the county rule, ordinance or other regulation is equivalent to federal statutes or regulations.

The County is proposing to revise Rules 200, 310, 310.01 and Appendix C in order to address a peculiar local condition: EPA's finding that the Phoenix Nonattainment Area did not attain the 24-hour $PM_{10}$ standard by the deadline mandated in the Clean Air Act (CAA), December 31, 2006. (72 FR 31183, June 6, 2007). The Phoenix Nonattainment Area is the only nonattainment area designated serious for $PM_{10}$ in Arizona. Consequently stronger regulations must be adopted in this area to address a serious health threat. Under Section 189(d) of the CAA, serious $PM_{10}$ nonattainment areas that fail to attain are required to submit within 12 months of the applicable attainment date, "plan revisions which provide for attainment of the $PM_{10}$ air quality standard and, from the date of such submission until attainment, for an annual reduction in $PM_{10}$ or $PM_{10}$ precursor emissions within the area of not less than 5 percent of the amount of such emissions as reported in the most recent inventory prepared for such area." In accordance with the CAA section 179(d)(3) and 189(d)(3), the attainment deadline applicable to an area that misses the serious area attainment date is as soon as practicable. The region needs to submit to a Five Percent Plan for $PM_{10}$ by December 31, 2007. The Phoenix Nonattainment Area is one of three areas in the entire country for which EPA has issued a finding that Section 189(d) has been triggered. As described in Sections 6 and 10 of this draft Notice of Final Rulemaking, Maricopa County and the EPA have concluded that the proposed revisions implement control measures that are technologically and economically feasible based on creditable evidence of implementation in other western and desert environments. No evidence has been submitted to Maricopa County that disputes this conclusion. Because of this, the revision complies with A.R.S. § 49-112 (A)(1) and A.R.S. § 49-112 (A) (2).

In addition, several of the proposed revisions are required to by A.R.S. § 49-474.01(A)(5, 6 and 11), 49-474.05 and 49-474.06 recently enacted in Senate Bill 1552. Therefore, a demonstration of compliance with A.R.S. § 49-112 as required by the County's general grant of rulemaking and ordinance authority in A.R.S. § 49-479 does not apply to those proposed rule provisions.

**8. A reference to any study relevant to the rule that the agency reviewed and either proposes to rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:**

ADEQ, 2004. "Summary of economic, small business, and consumer impact". Contained in: Notice of Final Rulemaking, Maricopa County Rule 325: Brick and Structural Clay Products (BSCP) Manufacturing. Arizona Administrative Register, Vol. 11, Issue 37, Sep. 9, 2005.
ADHS, 2002. Arizona Department of Health Services, Asthma Control Program, Office of Nutrition and Chronic Disease Prevention Services, Phoenix, AZ: Oct. 2002.

American Lung Association, 2003. Trends in Chronic Bronchitis and Emphysema: Morbidity and Mortality. Epidemiology and Statistics Unit, Research and Scientific Affairs, Washington, DC: March 2003.

Sierra Research, Inc., 2007. Analysis of Particulate Control Measure Cost Effectiveness. Document prepared for Maricopa Association of Governments, Phoenix AZ: April 2007.

STAPPA/ALAPCO, 1996. Controlling Particulate Matter Under the Clean Air Act: A Menu of Options. State and Territorial Air Pollution Program Administrators (STAPPA) and the Association of Local Air Pollution Control Officials (ALAPCO), Washington, DC: July 1996.

U.S. EPA, 1999a. "Human Health Effects of Criteria Pollutants." Chapter 5 in The Benefits and Costs of the Clean Air Act 1990 to 2010, Report to Congress, Washington, DC: Nov.1999.

U.S. EPA, 1999b. "Economic Valuation of Human Health Effects." Chapter 6 in The Benefits and Costs of the Clean Air Act 1990 to 2010, Report to Congress, Washington, DC: Nov.1999.

**9. A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision of this state:**

Not applicable

## 10. Summary of the economic, small business, and consumer impact:

### 10.1 Summary

The Maricopa County Air Quality Department (MCAQD) is proposing revisions to Rule 200, Rule 310, Rule 310.01, and Appendix C. As required by A.R.S. § 41-1055, this economic, small business and consumer impact statement includes a discussion of the persons most likely to be impacted by the proposed rules, along with a cost-benefit analysis of the proposed rules' probable impact on the MCAQD as the implementing agency and other public agencies, other political subdivisions of the state, and businesses affected by the proposed rulemaking. Where data are unavailable or highly uncertain, this statement discusses the limitations of the data, the methods used to develop qualitative and/or quantitative estimates, and attempts to characterize all probable impacts in qualitative terms.

To submit or request additional data on the information included in the economic, small business and consumer impact statement, please contact:

Johanna Kuspert or Jo Crumbaker
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Maricopa County Air Quality Department
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### 10.2 Identification of the proposed rule making

Each proposed change to these rules are described in detail under Item 6 above. While some changes are primarily administrative in nature, or designed to clarify existing County air quality rules, a subset of the proposed rule changes have been deemed to have potentially significant economic impacts, and are thus explicitly addressed in this Economic Impact Statement (EIS). These rule changes, and the relevant sections, include:

- Subcontractor Registration: Rule 200, § 306
- Unpaved Parking Lots: Rule 310, § 233 and Rule 310.01, § 230
- Visible Emissions Beyond Property Line:
  - Dust Generating Operations: Rule 310, § 303
  - Vehicle Use in Open Areas and Vacant Lots: Rule 310.01, § 302.4
  - Open Areas and Vacant Lots: Rule 310.01, § 302.5
  - Unpaved Parking Lots: Rule 310.01, § 302.6
  - Livestock Activities: Rule 310.01, § 302.8
- Cumulative Trackout Limit of 25 Feet:
  - Dust Generating Operations: Rule 310, § 306
  - Unpaved Parking Lots: Rule 310.01, § 302.6

  - Livestock Activities: Rule 310.01, § 302.8
- Dust Control Training Classes
  - Basic: Rule 310, § 309.1
  - Comprehensive: Rule 310, § 309.2
- Dust Control Coordinator for Dust-Generating Operations: Rule 310, § 310
- Unpaved Roadways: Rule 310.01, § 302.7
- Trackout Control Devices:
  - Unpaved Parking Lots: Rule 310.01, § 302.6
  - Livestock Activities: Rule 310.01, § 302.8
- Control Measure Options for Easements and Rights of Way: Rule 310.01, § 302.10
- Visible Emission Limits for Livestock Activities: Rule 310.01, §302.8

**10.3 Entities Expected to Be Affected by, Bear the Costs of, or Directly Benefit from the Proposed Rule Making**

Rule 200, § 306: Subcontractor Registration: It is estimated that up to 10,000 subcontractors would be subject to the proposed registration requirement. This figure includes those individuals and entities involved in performing ancillary services (including but not limited to: site foremen/supervisors, superintendents, truck drivers, initial grading, excavation, pouring concrete/footings, landscapers, utility installation, framers, drywall installation, electricians, swimming pool installers, et al.) that perform work on a permitted site. In addition, the MCAQD, as the implementing agency, will incur costs for the design, implementation, and administration of this program.

Rule 310, § 233 and Rule 310.01, § 230: Unpaved Parking Lots: With the elimination of the 5000-square-foot size criterion under these rules, all owners of unpaved parking lots of any size would be required to meet the requirements of the proposed rules.

Rule 310, § 303 and Rule 310.01, §§ 302.4, 302.5, 302.6, and 302.8: Visible Emissions Beyond Property Line: Owners of unpaved parking lots, open areas, vacant lots, and areas containing livestock activities will bear the costs of implementing required control measures required to prevent no visible emissions beyond the property line.

Rule 310, § 306 and Rule 310.01, §§ 302.6 and 302.8: Cumulative Trackout Limit of 25 Feet: Owners of unpaved parking lots and areas containing livestock activities will bear the costs of monitoring, implementing immediate clean-up measures, and repairing/replacing control measures when trackout extends a cumulative distance of 25 linear feet or more.

Rule 310, §§ 309.1 and 309.2: Basic and Comprehensive Dust Control Training Classes: Those entities (individuals, corporations, or other organizations) currently required to obtain a dust control permit for earthmoving activities within Maricopa County are the groups that would be directly affected by the proposed introduction of a requirement to attend a basic or comprehensive dust control class. In addition, the implementing agency (MCAQD) will be responsible for the design, implementation, and administration of this program.

Rule 310.01, § 302.7: Unpaved Roadways: Owners of a non-traditional source of fugitive dust that involves unpaved roadways will bear the cost of conducting and documenting vehicle/traffic counts and ensuring that the unpaved roadways are used for less than 150 vehicle trips per day.

Rule 310.01, §§ 302.6 and 302.8: Trackout Control Devices: Owners of unpaved parking lots and livestock activities will bear the cost of installing trackout control devices as an optional control measure to comply with the requirements of the proposed rules.

Rule 310.01, § 302.10: Control Measure Options for Easements and Rights of Way: Owners of easements, right-of-way, and access roads for utilities who choose to install locked gates as a control measure option will bear the costs associated with this option.

Rule 310.01, § 302.8: Visible Emission Limits for Livestock Activities: There should be no significant additional costs associated with the use of the aggregate number of 15-second observations which exceed the 20 percent opacity standard.

### 10.4 Cost-benefit analysis

#### 10.4.1 The probable costs and benefits to the implementing agency and other agencies directly affected by the implementation and enforcement of the proposed rule making

Rule 200, § 306: Subcontractor Registration: The Maricopa County Air Quality Department will require four additional permit technicians to administer the subcontractor registration program. The direct annual costs associated with four additional permit technicians, as well as database maintenance personnel are estimated to be $232,000. Annual costs of administering the program (including database development and maintenance, consumables, etc.) are estimated to be $88,000. Total agency costs, including the allotment of overhead costs (for administrative, financial, cashiering personnel etc.) are estimated at $444,500.

Rule 310, § 233 and Rule 310.01, § 230: Unpaved Parking Lots: The elimination of the 5000-square-foot size criterion will not have a direct impact on the MCAQD workload associated with inspections of unpaved parking lots. The MCAQD committed to begin proactive inspections of unpaved parking

lots because this was on the list of suggested county-implemented measures (MAG measure 31) to reduce $PM_{10}$ emissions. As a result, the MCAQD committed to conduct proactive and complaint-based inspections of existing parking lots located within unincorporated areas of Maricopa County. The MCAQD will hire four dust control vacant lot compliance inspectors to conduct proactive and complaint-based inspection of parking lots within the unincorporated areas. The annual costs associated with four additional dust control vacant lot inspectors are estimated to be $255,000. One-time costs are estimated to be $82,000. The Maricopa County Planning and Development Department also estimated that five drainage plan reviewers will be required to perform drainage reviews of parcels requiring dustproof paving. Annual costs associated with five additional drainage plan reviewer are estimated at an annual cost of $378,000, and one-time costs are estimated to be $93,000.

Rule 310, § 303 and Rule 310.01, §§ 302.4, 302.5, 302.6, and 302.8: Visible Emissions Beyond Property Line: A workload analysis was conducted by the MCAQD Planning and Analysis Division and it was determined that dust inspection labor time will not appreciably increase from the additional requirement that no visible emissions be allowed beyond the property line. Based on this analysis, the proposed rule change should yield no additional costs for MCAQD or any other agency.

Rule 310, § 306 and Rule 310.01, §§ 302.6 and 302.8: Cumulative Trackout Limit of 25 Feet: Since the existing rules already contain immediate clean-up and control measure replacement/repair requirements for a cumulative trackout distance criterion of 50 feet, there should not be any cost increases to MCAQD or any other agency in association with the decrease in cumulative distance criteria to 25 feet.

Rule 310, § 309.1 and 309.2: Basic and Comprehensive Dust Control Training Classes: Maricopa County will hire four additional FTEs to coordinate and conduct dust control training. Annual costs associated with the four additional FTEs, database maintenance, training materials, and room rental are estimated to be $382,000. One-time costs are estimated to be $460,000 for database development, equipment costs, and training materials.

Rule 310.01, § 302.7: Unpaved Roadways: The current rules for unpaved roads already have provisions for required implementation of control measures based on the threshold criterion of 150 vehicles per day. There should be minimal additional cost to Maricopa County to ensure that required traffic counts are conducted and properly documented for applicable unpaved roadways. Compliance with the proposed rule change can be assured by MCAQD during the normal dust inspection process. There should be no additional costs to any other agencies associated with this proposed rule change.

Rule 310.01, §§ 302.6 and 302.8: Trackout Control Devices: The addition of a trackout control device as a possible control measure to ensure compliance with all visible emissions requirements under these rules should not yield increased cost for Maricopa County or any other agencies.

Rule 310.01, § 302.10: Control Measure Options for Easements and Rights of Way: The addition of the control measure option to install locked gates at entry points under this rule should not yield any increased costs to MCAQD or any other agencies.

Rule 310.01, § 302.8 Visible Emission Limits for Livestock Activities: There should be no additional cost to MCAQD or any other agency in association with the use of the aggregate number of 15-second observations which exceed the 20 percent opacity standard.

**10.4.2 Probable costs and benefits to other political subdivisions of the state**

It is assumed that the only potential impact on other agencies and other political subdivisions of the state would be in a limited number of instances where these entities are themselves permit holders for activities regulated under the proposed rule(s). As this occurs rather infrequently and these permits comprise only a small fraction of all regulated activity under the proposed rule(s), it is anticipated that compliance with the proposed rules will impose no significant economic impact on any other agency or political subdivision of the state.

**10.4.3 Probable costs and benefits to businesses directly affected by the proposed rule making**

Rule 200, § 306: Subcontractor Registration: It is anticipated that the MCAQD subcontractor registration fee will be $50. Additional indirect costs (e.g., time spent to complete and submit the forms, and the associated recordkeeping) are estimated to average 1.5 hours per registrant. Assuming an average wage of $25/hour, the indirect costs of registering under this program would be $37.50, for a total cost per registrant of $87.50, and a total cost on businesses of all sizes impacted by this rule of $875,000.

Rule 310, § 233 and Rule 310.01, § 230: Unpaved Parking Lots: With the elimination of the minimum size criterion under these rules, all owners of unpaved parking lots will bear the costs of implementing control measures to meet all new/revised requirements for unpaved parking lots under Rule 310 and Rule 310.01. Implementation of control measures to prohibit visible emissions beyond the property line and require immediate clean-up of trackout (including repairing or changing control measures to eliminate trackout) which extends a cumulative distance of 25 feet or more. The discussion of possible cost impacts of these proposed requirements for all unpaved parking lots is included below.

Rule 310, § 303 and Rule 310.01, §§ 302.4, 302.5, 302.6, and 302.8: Visible Emissions Beyond Property Line: Owners of unpaved parking lots, open areas and vacant lots, and livestock activities will be required to implement control measures to prevent visible emissions beyond the property line. Estimated costs will vary depending on the type and number of control measures required to prevent visible emissions beyond the property line. Annualized costs for implementing each possible control measure under each applicable section have not been fully developed at this time, however some preliminary cost data for control measures under the various rule sections are provided below.

Annualized costs for the installation of a rock barrier as a possible control measure under § 302.4 have been estimated to be approximately $1,340 per vacant lot per year with installation costs estimated to be approximately $11,400 for a three-acre parcel of land (Sierra Research, 2007).

The possible range of annualized control measure costs for unpaved parking lots (based on a 0.1 acre parking lot) for reducing visible emissions under the proposed rule changes is expected to range from as low as $100 per parking lot per year (assumes annual subgrade preparation and polymer emulsion application) for application of a dust palliative to as high as $1,700 per parking lot per year for paving of the parking lot (based on total construction cost of $15,400 and a useful life of 25 years).

Rule 310, § 306 and Rule 310.01, §§ 302.6 and 302.8: Cumulative Trackout Limit of 25 Feet: The existing rule already contains requirements for both (a) immediate cleanup, and (b) control measure replacement/repair when trackout exceeds 50 feet. Since the amount of trackout tends to decrease sharply as distance from the exit increases, the new rule's limit of 25 feet will require only a marginal increase in the maintenance frequency of control devices or measures to restore the efficiency of the trackout control device to its original condition. The cost of this incremental activity is expected to be negligible in most circumstances.

Rule 310, § 309.1: Basic Dust Control Training Class: It is anticipated that the MCAQD fee for the basic dust control training class will be $50. Each attendee will spend 4 hours in class, plus an estimated 1.5 hours for travel time, associated recordkeeping, etc. Assuming an average wage of $24.23/hour, the indirect costs of registering under this program would be $133.27, for a total cost per registrant of $183.27. With an estimated 10,336 persons required to enroll for a basic dust control training class, the estimated total costs on businesses of all sizes impacted by this rule of $1,894,227.

Rule 310, § 309.1 Comprehensive Dust Control Training Class: It is anticipated that the MCAQD fee for the comprehensive dust control training class will be $125. Each attendee will spend 8 hours in class, plus an estimated 1.5 hours for travel time, recordkeeping, etc. Assuming an average wage of

$29.27/hour, the indirect costs of registering under this program would be $278.07, for a total cost per registrant of $403.07, and a total cost on businesses of all sizes impacted by this rule of $803,712.

Rule 310, § 310: Dust Control Coordinator for Dust-Generating Operations: The incremental costs imposed by the provision for any individual site are expected vary, depending on current management practices at that site. For those sites that presently have supervisory management personnel present whenever dust-generating activates are ongoing, this provision will impose no additional costs. As a most conservative estimate for a project lasting 6 months, this provision would require additional personnel (at an average salary of $35/hr) be present on site 10 hours per day for 133 work-days of the lifetime of the project, for a total cost of $46,550.

Rule 310.01, § 302.7: Unpaved Roadways: The current rules for unpaved roads already have provisions for required implementation of control measures based on the threshold criterion of 150 vehicles per day. The proposed rule requires formal, documented traffic counts if an unpaved roadway is used for 150 vehicle trips or more per day.

Based on rough estimates obtained from the Maricopa County Department of Transportation (MCDOT), the estimated daily cost to conduct traffic counts will be approximately $85 per road per count. It is assumed that conducting the traffic counts will require approximately 4 hours of total labor each day to both place and remove a bi-directional traffic counting cord. The MCAQD welcomes interested stakeholders to provide relevant cost information where available.

Rule 310.01, §§ 302.6 and 302.8: Trackout Control Devices: Owners of unpaved parking lots and livestock activities may have to bear the cost of installing trackout control devices as a required control measure. A trackout control device is one of several possible control measures that owners can implement in order to comply with all requirements under §§ 302.6 and 302.8, but is not mandatory. Possible trackout control devices include: a gravel pad, a grizzly, a wheel wash system, or a paved area. It is expected that the cost of these trackout control devices will fall within the range of costs specified for possible control measures to be used to prevent visible emissions beyond the property line.

Rule 310.01, § 302.10: Control Measure Options for Easements and Rights of Way: Owners of easements, rights-of-way, and access roads for utilities will bear the cost of installing locked gates as a possible control measure under this rule. The annualized cost for installing an individual locked gate at an entry point is expected to be no more $150 per year based on a total installation cost of $1,500 and a useful life of at least 10 years.

Rule 310.01, § 302.8 Visible Emission Limits for Livestock Activities: There should be no additional cost associated with the use of the aggregate number of 15-second observations which exceed the 20 percent opacity standard.

**10.5 Impact on private and public employment**

In cases where estimates of increased workloads and anticipated additional staff (FTE's) required for MCAQD to design, implement, and administer the proposed programs have been quantified individually in section 10.4.1 above. Since Maricopa County will be the implementing entity for these programs, no other significant impacts on public-sector employment of other agencies or political subdivisions of the state are anticipated.

The potential financial impacts on permit holders (businesses and individuals), on a per-case basis, and cumulative impacts on all permit holders, have been described and quantified, insofar as possible, in section 10.4.3 above.

Rule 200, § 306: Subcontractor Registration: Since a single business entity (corporation, LLC, individual, etc.) only requires a single registration, no impact on private employment is anticipated. The only direct effect on employment will be the four additional permit technicians anticipated to be required by implementation of this rule.

Rule 310, § 233 and Rule 310.01, § 230: Unpaved Parking Lots: As discussed above, all owners of unpaved parking lots will bear the costs of implementing control measures to meet proposed visibility and trackout requirements for unpaved parking lots. Very rough cost impacts were estimated and presented for the businesses directly affected by the proposed rule changes. The affected businesses may be forced to offset any additional costs incurred in order to comply with the proposed rules. Based on the cost data presented above, the MCAQD does not have sufficient data at this time to quantitatively evaluate potential employment impacts for businesses impacted by the proposed rule.

Rule 310, § 303 and Rule 310.01, §§ 302.4, 302.5, 302.6, and 302.8: Visible Emissions Beyond Property Line: Costs associated with achieving zero visible emissions beyond the property line through the use of one or more control measures may affect employment for the various owners/operators of the applicable fugitive dust source areas under the proposed rule changes. The MCAQD does not have sufficient data at this time to quantitatively evaluate potential employment impacts for businesses directly affected by the proposed requirements.

Enforcing the visible emissions requirement beyond the property line will require some additional labor time for the MCAQD dust inspectors, but the amount of labor time is not expected to

substantially the resources (full-time employees) required to conduct the complete the required dust inspection backlog. Employment at political subdivisions of the state are not expected to be affected by the proposed rulemaking.

Rule 310, § 306 and Rule 310.01, §§ 302.6 and 302.8: Cumulative Trackout Limit of 25 Feet: Since the existing rules already contain immediate clean-up and control measure replacement/repair requirements for a trackout distance criterion of 50 feet, there should be no impact on employment associated with the proposed rule change.

Rule 310, §§ 309.1 and 309.2: Basic and Comprehensive Dust Control Training Classes: It is anticipated that the MCAQD, as the implementing agency, will require approximately 2.2 additional FTE's to oversee and implement these programs. MCAQD is currently in the planning stages to certify other third-party entities to conduct these training programs, so some additional private-sector employment impact is likely, but this impact cannot yet be quantified precisely.

Rule 310.01, § 302.7: Unpaved Roadways: The current rules for unpaved roadways already have provisions for required implementation of control measures based on the threshold criterion of 150 vehicles per day. The proposed rules revisions require formal, documented traffic counts if unpaved roadways are used for 150 vehicle trips or more per day. Employment may be effected by businesses required to bear the cost of implementing a traffic counting system and documenting the traffic count results. Sufficient data does not exist to determine precise employment impacts based on the cost impacts presented above.

Rule 310.01, §§ 302.6 and 302.8: Trackout Control Devices: As stated above, owners of unpaved parking lots and livestock activities may have to bear the cost of installing trackout control devices as a required control measure to comply with the requirements of §§ 302.6 and 302.8. It is one of several possible control measure options, but is not a mandatory control option. The inclusion of a trackout control device as one of the possible control options should not have an effect on employment for affected businesses, implementing agencies, or political subdivisions of the state.

Rule 310.01, § 302.10: Control Measure Options for Easements and Rights of Way: Owners of easements, right-of-way, and access roads for utilities will bear the cost of installing locked gates as a possible control measure under this rule. This is only one of the possible control measures under this rule and is not cost prohibitive based on the data provided above. Costs to affected businesses will not be appreciably increased under this proposed addition to the rule; therefore, employment should not be impacted at any businesses directly impacted by this rule. Employment at agencies and political subdivisions of the state should not be impacted by this proposed rule change.

Rule 310.01, § 302.8 Visible Emission Limits for Livestock Activities: Since no additional costs will be incurred by any party as a result of the change in the opacity calculation methodology, employment will not be affected at any businesses, agencies or political subdivisions of the state.

**10.6 Probable Impact of the Proposed Rule Making on Small Businesses**

For all proposed rule changes discussed in this analysis, a description of affected entities of all sizes is contained in Section 10.3 above. Due to constraints in time, available resources, and readily accessible current data, no reliable estimates on the separate impact on small businesses have yet been developed.

**10.6.1 Alternative Methods Considered to Reduce Impact on Small Business**

Rule 200, § 306: Subcontractor Registration: No alternatives considered; the parameters of the proposed program have been developed to comply with A.R.S. 49-474.06.

Rule 310, §§ 309.1 and 309.2: Basic and Comprehensive Dust Control Training Programs: The proposed rulemaking imposes permitting and training requirements only on earthmoving projects greater than 0.1 acres (4,356 sq. ft.), as does the current version of the rule(s). Thus all projects below this minimum size threshold are exempt from the requirements of the proposed rule, limiting the financial and administrative burden for very small projects. As little or no relevant information is available, no attempt has been made to quantify the number of projects under this size threshold, or to estimate the increase in costs (additional inspectors and enforcement personnel) that would be required to apply the proposed rules to earthmoving activities of less than 0.1 acres. No other alternatives have been considered; the parameters of the proposed programs have been prepared to comply with A.R.S. 49-474.05.

**10.6.2 Probable Cost and Benefit to Private Persons and Consumers**

All proposed changes to Rules 310 and 310.01 are designed to reduce particulate matter emissions with the ultimate goal of protecting the public health and welfare by attaining $PM_{10}$ and $PM_{2.5}$ National Ambient Air Quality Standards (NAAQS) throughout Maricopa County. A detailed description of the benefits for the public at large are excerpted from a cost analysis conducted by ADEQ (2004) and is provided below.

Improvement in air quality will generate cost-saving benefits by avoiding adverse-health effects, such as emergency room visits, hospital admissions, acute pediatric bronchitis, chronic adult bronchitis, acute respiratory symptom days, and even premature death. Potential benefits arising from a reduction PM and other pollutants emitted into the atmosphere can be inferred from data associated with the reduction of any airborne Particulate Matter (PM).

Some of health effects of human exposure to PM can be quantified while others cannot. Quantified adverse-health effects include: mortality, bronchitis (chronic and acute), new asthma cases, hospital admissions (respiratory and cardiovascular), emergency room visits for asthma, lower and upper respiratory illness, shortness of breath, respiratory symptoms, minor restricted activity days, days of work loss, moderate or worse asthma status of asthmatics. Unquantifiable adverse-health effects include: neonatal mortality, changes in pulmonary function, chronic respiratory diseases (other than chronic bronchitis), morphological changes, altered host defense mechanisms, cancer, and non-asthma respiratory emergency room visits (U.S. EPA, 1999a).

Epidemiological evidence shows that particulates have negative health impacts in a variety of ways, including: increased mortality and morbidity; more frequent hospital admissions, emergency room and clinician visits; increased need and demand for medication; and lost time from work and school. There is also increasing evidence that ambient air pollution can precipitate acute cardiac episodes, such as angina pectoris, cardiac arrhythmia, and myocardial infraction, although the majority of PM-related deaths are attributed to cardiovascular disease (The U.S. EPA's PM Health Effects Research Center Program, prepared by PM Centers Program staff, January 2002).

New evidence also links exposure to ambient PM concentrations to airway inflammation that in turn produces systemic effects, such as acute phase response with increased blood viscosity and coagulability, as well as increased risk of myocardial infraction in patients with coronary artery disease. Chronic effects of repeated airway inflammation may also cause airway remodeling, leading to irreversible lung disease. Individuals with asthma and chronic obstructive pulmonary disease may be at even higher risk from repeated exposure to particulates, according to the U.S. EPA's PM Health Effects Research Center Program.

The Health Effects Institute confirmed the existence of a link between particulate matter and human disease and death (premature mortality). The data revealed that long-term average mortality rates, even after accounting for the effects of other health effects, were 17-26% higher in cities with higher levels of airborne PM (Health Effects of Particulate Air Pollution: What Does The Science Say Hearing before the Committee on Science, House of Representatives, 107th Congress of the U.S., second session, May 8, 2002). Data further reveal that every 10-microgram increase in fine particulates per cubic meter produces a 6% increase in the risk of death by cardiopulmonary disease, and an 8% increase for lung cancer. Even very low concentrations of PM can increase the risk of early death, particularly in elderly populations with preexisting cardiopulmonary disease (STAPPA/ALAPCO, 1996).

In 2002 alone, chronic obstructive pulmonary disease cost the U.S. more than $32 million, a sum not including costs attributable to asthma (American Lung Association, 2003). In Arizona, deaths attributable to asthma have equaled or exceeded national rates from 1991-1998. In 1998, some 316,200 Arizonans suffered breathing discomfort or asthma related stress (ADHS, 2002).

The MCAQD expects that a reduction in PM potentially will create commensurate cost-saving benefits to the general public by contributing towards reducing these emissions-related health problems. The proposed Maricopa County rulemaking will help improve the general quality of life for the citizens of Maricopa County, particularly those residing near sources that have reduced PM emissions and other air pollutants associated with the manufacturing processes.

Health benefits can be expressed as avoided cases of PM related-health effects and assigned a dollar value. EPA used an average estimate of value for each adverse-health effect of criteria air pollutants. Table 1 contains valuation estimates from the literature reported in dollars per case reduced. For example, the table shows a value of $401,000 (in 2006 dollars) per case of chronic bronchitis avoided.

**Table 1. Monetized Adverse-Health Effects Avoided From Exposure to PM**

| Adverse Health Effect * | Per Case Valuation (1990 dollars) | Per Case Valuation (2006 dollars) |
|---|---|---|
| Mortality | $4,800,000 | $7,403,800 |
| Chronic bronchitis | $260,000 | $401,000 |
| Hospital admissions for respiratory conditions | $6,900 | $10,640 |
| Hospital admissions for cardiovascular conditions | $9,500 | $14,650 |
| Emergency room visits for asthma | $194 | $299 |
| Acute Bronchitis | $45 | $69 |
| Asthma attack | $32 | $49 |
| Moderate or worse asthma day | $32 | $49 |
| Acute respiratory symptom | $18 | $28 |
| Upper respiratory symptom | $19 | $29 |
| Lower respiratory symptom | $12 | $19 |
| Shortness of breath, chest tightness, or wheeze | $5 | $8 |
| Work loss day | $83 | $128 |
| Mild restricted activity day | $38 | $59 |

* An individual's health status and age prior to exposure impacts his/her susceptibility. At risk persons include those who have suffered a stroke or have cardiovascular disease. Some age cohorts are more susceptible to air pollution than others, i.e., children and elderly.

Source: Derived from U.S. EPA, 1999b. According to EPA, cost values of these illnesses tend to underestimate the true value of avoiding these adverse-health effects. Mean estimates of willingness-to-pay (WTP) were used to derive values, unless WTP values were not available, in which case, the cost of treating or mitigating the effects was used. The value of an avoided asthma attack, for example, would be a person's WTP to avoid that symptom.

Mortality in Table 1 actually refers to statistical deaths, or inferred deaths due to premature mortality. A small decline in the risk for premature death will have a certain monetary value for individuals, and as such, they will be willing to pay a certain amount to avoid premature death. For instance, if PM emissions are reduced so that the mortality risk on the exposed population is decreased by one in one-hundred thousand, then among 100,000 persons, one less person will be expected to die prematurely. If the average willingness-to-pay (WTP) per person for such a risk reduction were $75, the implied value of the statistical premature death avoided would be $7.5 million.

**10.7 Probable effect on county revenues**

Some of the proposed rule changes would result in increased fee revenue to the Maricopa County Air Quality Department, which anticipates revising its fee schedule (under a separate rulemaking) in order to recoup the costs of designing, implementing and administering new programs contained within the present rulemaking. A list of the proposed programs, along with estimates of proposed user fees and overall revenue projections, is as follows:

| Program | Estimated Users | Fee/User | Estimated Annual Revenue |
|---|---|---|---|
| Subcontractor Registration Program | 10,000 | $50 | $500,000 |
| Basic Dust Control Training Class | 10,336 | $25 | $258,400 |
| Comprehensive Dust Control Training Class | 1,994 | $50 | $99,700 |

No other significant impact on state or County revenues from the present rulemaking is anticipated.

**10.8 Alternative Methods Considered to Achieve the Purpose of the Proposed Rule Making**

State law requires agencies to reduce the impact of a rule on small businesses by using certain methods, when they are legal and feasible, in meeting the statutory objectives of the rulemaking. Maricopa County considered each of the methods prescribed in Arizona Revised Statutes (A.R.S.) § 41-1035 and A.R.S. § 41-1055(B) for reducing the impact on small businesses. Methods that may be used include the following: (1) exempt them from any or all rule requirements, (2) establish performance standards that would replace any design or operational standards, or (3) institute reduced compliance or reporting requirements, such as establishing less stringent requirements, consolidating or simplifying them or setting less stringent schedules or deadlines.

In some cases, no alternatives have been considered, as the proposed rule changes are designed to comply with state statute: e.g., the Subcontractor Registration Program (Rule 200, § 306), has been developed to comply with A.R.S. § 49-474.06; and the Basic and Comprehensive Dust Control Training Classes (Rule 310, §§ 309.1 and 309.2) have been developed to comply with A.R.S. § 49-474.05.

**10.9 Data Availability and Limitations of Assumptions**

The present draft of this economic impact statement was developed in accordance with A.R.S. §41-1055 to assess the potential economic impacts of the proposed changes to these rules. Sources of data and any assumptions used to develop these estimates have been included in the discussion of these analyses; and where data are lacking or uncertain, this has been noted wherever possible. Maricopa County Air Quality Department welcomes all interested parties to provide additional relevant information and documentation on the anticipated costs and benefits resulting from compliance with the proposed rule(s).

**11. Name and address of department personnel with whom persons may communicate regarding the accuracy of the economic, small business, and consumer impact statement:**


| | |
|---|---|
| Name: | Johanna M. Kuspert or Jo Crumbaker |
| | Maricopa County Air Quality Department |
| Address: | 1001 N. Central Ave, Suite 595 |
| | Phoenix, AZ 85004 |
| Telephone: | (602) 506-6710 or (602) 506-6705 |
| Fax: | (602) 506-6179 |
| E-mail: | jkuspert@mail.maricopa.gov or jcrumbak@mail.maricopa.gov |


**12. Description of the changes between the proposed rules, including supplemental notices and final rules:**

Since the final drafts of Rules 200, 310, 310.01, and Appendix C were published in the Notice of Proposed Rulemaking on November 9, 2007 and in response to formal comments received during the formal comment period - November-December 2007, the following changes to Rules 200, 310, 310.01, and Appendix C have been made. These changes appear in the text of the final rules published in this draft Notice of Final Rulemaking:

Rule 200, Section 301: To correct the references made in this section. To delete "Section 302 thru Section 305 of this rule" and to add "Section 302 thru Section 305 and Section 307 of this rule." Section 301to read in part as follows: "The standards and/or requirements for these permits are described in Section 302 thru Section 305 and Section 307 of this rule. Additional standards, administrative requirements, and monitoring and records requirements for some of these permits are described in individual rules of these rules, as applicable/as specified in Section 302 thru Section 305 and Section 307 of this rule."

Rule 310, New Section 103.7: In the Notice of Proposed Rulemaking (NPR), proposed to add new Section 103 - exemptions from Rule 310. New Section 103.7 read: "An unpaved road is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by

motor vehicles." This text was deleted from re-numbered Section 234-Definition Of Unpaved Road. In the draft Notice of Final Rulemaking (NFR), propose to delete new Section 103.7 and to return the following text to re-numbered Section 234: "An unpaved road is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles."

Rule 310, Re-Numbered Section 202: In the Notice of Proposed Rulemaking (NPR) in the definition of area accessible to the public, proposed to delete "retail" and to delete "open"; "accessible" was proposed to replace "open". In the draft Notice of Final Rulemaking (NFR) instead-of using the term "accessible" in the definition of area accessible to the public, propose to delete "accessible" and to add "can be approached, entered, or used for." The definition of area accessible to the public to read: "Any parking lot or public roadway that can be approached, entered, or used for public travel primarily for purposes unrelated to the dust generating operation."

Rule 310, New Section 212: In the Notice of Proposed Rulemaking (NPR), the phrase "technology-based emission limitation under the permit" was included in the proposed definition of emergency. In the draft Notice of Final Rulemaking (NFR), propose to delete the phrase "technology-based emission limitation under the permit" and to add the phrase "limitation in this rule." New Section 212 - definition of emergency to read: "A situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a limitation in this rule, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include any noncompliance due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error."

Rule 310, New Section 214: In the Notice of Proposed Rulemaking (NPR), the definition of end of work day was proposed to read as follows: "The end of a working period that may include one or more work shifts but not later than 8 pm." In the draft Notice of Final Rulemaking (NFR), propose to make the definition less ambiguous as to what is considered to be the end of a working period, because some sources work 24 hours a day. Propose to change the definition of end of work day such that it reads: "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 pm."

Rule 310, New Section 223: In the Notice of Proposed Rulemaking (NPR), proposed to add the definition of open storage pile - to read as follows: "Any accumulation of bulk material with a 5% or greater silt content which in any one point attains a height of three feet and a total surface area of 150 square feet or more. Silt content shall be assumed to be 5% or greater unless a person can show, by testing in accordance with ASTM Method C136-06 or other equivalent method approved in writing by

the Control Officer and the Administrator that the silt content is less than 5%." In the NPR, proposed to move definition of "open storage pile" from standards section to definitions section; Term and definition were used in Rule 310, Section 308.6 adopted April 7, 2004. An open storage pile is an open storage pile if/when such pile attains a height of three feet and a total surface area of 150 square feet or more. Such dimensions match dimensions used in South Coast's Rule 403-Fugitive Dust definition of open storage pile. In the draft Notice of Final Rulemaking (NFR), propose, in the first sentence of the definition of open storage pile, to delete "which in any one point attains a height of three feet and covers a total surface area of 150 square feet or more" and to add "that has a total surface area of 150 square feet or more and that at any one point attains a height of three feet." The intent is that the surface area of the storage pile is of concern - not the footprint of the storage pile.

Rule 310, Re-Numbered Section 234: In the Notice of Proposed Rulemaking (NPR), proposed to delete the following text from re-numbered Section 234-Definition Of Unpaved Road: "An unpaved road is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles." This text was proposed to be added to new Section 103.7. In the draft Notice of Final Rulemaking (NFR), propose to return the text to re-numbered Section 234 and to delete new Section 103.7.

Rule 310, New Section 302.3: In the Notice of Proposed Rulemaking (NPR), proposed new Section 302 - to add permit requirements for dust generating operations from Rule 200-Permit Requirements; Permit requirements for earthmoving operations to be revised in Rule 200 and to reference Rule 310. Also in the NPR, proposed revisions to Section 402 - to move the description of the required elements of a Dust Control Plan from standards section of Rule 310 to administrative requirements section of Rule 310. In the draft Notice of Final Rulemaking (NFR), propose to revise new Section 302.3 - permit requirements for routine dust generating operations at a site with a Title V permit, Non-Title V permit, or General permit - to be consistent with revised Section 402.1 - Dust Control Plan requirements for routine dust generating operations at a site with a Title V permit, Non-Title V permit, or General permit. In the draft NFR, propose to add "that disturbs a surface area of 0.10 acre or greater" to new Section 302.3. New Section 302.3 to read: "No person shall commence any routine dust generating operation that disturbs a surface area of 0.10 acre or greater at a site that has obtained or must obtain a Title V, Non-Title V, or General permit under Regulation III-Permits And Fees of these rules without first submitting to the Control Officer a Dust Control Plan."

Rule 310, New Section 303.1(b): In the Notice of Proposed Rulemaking (NPR), proposed new Section 303.1(b), which required owners and/or operators of a dust generating operation to not allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated. This property line standard was a "presence" or "absence" limitation. To

clarify that the Maricopa County Air Quality Department (MCAQD) will not be enforcing on a single puff of dust, in the draft Notice of Final Rulemaking (NFR), propose to add a second sentence to new Section 303.1(b). The second sentence is proposed to read: "Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six minute period as determined using EPA Reference Method 22."

Rule 310, Re-Numbered Section 303.2(a): In the Notice of Proposed Rulemaking (NPR), proposed to add "described in Section 303.1(a) of this rule" to the first sentence in re-numbered Section 303.2(a). This addition provided an exemption from the 20% opacity limitation during a wind event provided specific/specified control measures were implemented. In the Notice of Final Rulemaking (NFR), propose to change "described in Section 303.1(a) of this rule" to "described in Section 303.1 of this rule." With this proposed change, an exemption will be provided from the 20% opacity limitation and from the property line standard provided specific/specified control measures are implemented.

Rule 310, Re-Numbered Section 303.2(a)(2): In the Notice of Proposed Rulemaking (NPR), proposed to delete "The 20% opacity exceedance" and to add "Exceedances of the opacity limit described in Section 303.1(a) of this rule." In the Notice of Final Rulemaking (NFR), propose to change "Exceedances of the opacity limit described in Section 303.1(a) of this rule" to "Exceedances of the opacity limits described in Section 303.1 of this rule." With this proposed change, an exemption will be provided from the 20% opacity limitation and from the property line standard provided specific/specified control measures are implemented.

Rule 310, Re-Numbered Section 303.2(b): In the Notice of Proposed Rulemaking (NPR), proposed to delete "No opacity limitation shall" and to add "The opacity limit described in Section 303.1(a) of this rule shall not." In the Notice of Final Rulemaking (NFR), propose to change "The opacity limit described in Section 303.1(a) of this rule shall not" to "The opacity limits described in Section 303.1 of this rule shall not." With this proposed change, an exemption will be provided from the 20% opacity limitation and from the property line standard provided specific/specified control measures are implemented.

Rule 310, New Section 303.2(d): In the draft Notice of Final Rulemaking (NFR), propose to add new Section 303.2(d), which will add an exemption from the property line standard when an owner and/or operator conducts dust generating operations within 25 feet of the property line. New Section 303.2(d) to read: "Activities Near The Property Line: The opacity limit described in Section 303.1(b) of this rule shall not apply to dust generating operations conducted within 25 feet of the property line."

Rule 310, Re-Numbered Section 305.1: In the Notice of Proposed Rulemaking (NPR), proposed to delete Table 15-Bulk Material Hauling/Transporting Off-Site Hauling/Transporting Onto Paved Areas Accessible To The Public and to add control measures from Table 15 to re-numbered Section 305.1. In so doing, also proposed to change heading to "Off-Site Hauling." In the draft Notice of Final Rulemaking (NFR), propose to add "onto paved areas accessible to the public" to the new heading of re-numbered Section 305.1. The heading of re-numbered Section 305.1 to read: "Off-Site Hauling Onto Paved Areas Accessible To The Public."

Rule 310, New Section 305.1(a)(2): In the Notice of Proposed Rulemaking (NPR), the intent of proposed new Section 305.1(a)(2) was to require that haul trucks be loaded such that the bulk material within the cargo compartment be no higher than the bulk material along the sides, front, and back of the cargo compartment. In the NPR, the text of new Section 305.1(a)(2) did not clearly express such intent. In the Notice of Final Rulemaking (NFR), propose to delete "the highest point at which the bulk material contacts". In the NFR, new Section 305.1(a)(2) to read: "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 a cargo container area."

Rule 310, Section 305.3(b): In the Notice of Proposed Rulemaking (NPR), the intent of proposed new Section 305.3(b) was to require that haul trucks be loaded such that the bulk material within the cargo compartment be no higher than the bulk material along the sides, front, and back of the cargo compartment. In the NPR, the text of new Section 305.3(b) did not clearly express such intent. In the Notice of Final Rulemaking (NFR), propose to delete "the highest point at which the bulk material contacts". In the NFR, new Section 305.3(b) to read: "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 a cargo container area."

Rule 310, New Section 305.11(b)(1): Propose to add "as necessary" to the end of new Section 305.11(b)(1). New Section 305.11(b)(1) to read : "Apply water or other suitable dust suppressant other than water, as necessary."

Rule 310, New Section 306.1(b): In the Notice of Proposed Rulemaking (NPR), proposed to delete Table 16-Clean-Up Of Trackout, Carry-Out, Spillage, And Erosion and Table 17-Trackout Control and proposed to add control measures from Table 16 and Table 17 to new Section 306. In so doing, the control measures described in new Section 306.1(b) were intended to correspond with the work sites described in new Section 306.1(a). In the draft Notice of Final Rulemaking (NFR), propose to add to the beginning of new Section 306.1(b) the phrase: "For those work sites identified in Section 306.1(a)

of this rule" to make it clear that the control measures described in new Section 306.1(b) are intended to correspond with the work sites described in new Section 306.1(a).

Rule 310, New Section 306.1(b)(2): In the Notice of Proposed Rulemaking (NPR), proposed to delete Table 16-Clean-Up Of Trackout, Carry-Out, Spillage, And Erosion and Table 17-Trackout Control and proposed to add control measures from Table 16 and Table 17 to new Section 306. In so doing, the reference to the definition of gravel pad was incorrect in new Section 306.1(b)(2). In the draft Notice of Final Rulemaking (NFR), propose to correct the reference to the definition of gravel pad in new Section 306.1(b)(2).

Rule 310, New Section 310.7: In the Notice of Proposed Rulemaking (NPR), proposed to add dust control training requirements for sources that obtain a single permit for multiple non-contiguous sites. This requirement matched the requirement in Senate Bill 1552. In the draft Notice of Final Rulemaking (NFR), propose to add "in accordance with Section 404 of this rule" and "Basic Dust Control Training Class" to the introduction of new Section 310.7. Also in the draft NFR, propose to delete new Section 310.7(a) and to add it to the introduction of new Section 310.7 and to delete in its entirety new Section 310.7(b). New Section 310.7 to read: "The permittee, who is required to obtain a single permit for multiple non-contiguous sites in accordance with Section 404 of this rule, shall have on sites with greater than one acre of disturbed surface area at least one individual who is designated by the permittee as a Dust Control Coordinator trained in accordance with Section 309.1-Basic Dust Control Training Class of this rule. The Dust Control Coordinator shall be present on-site at all times during primary dust generating activities that are related to the purposes for which the permit was obtained."

Rule 310, New Section 401.1: In the Notice of Final Rulemaking (NFR), propose to delete the reference to Maricopa County's "Application For Dust Control Permit" and to revise the introductory statement to read as follows: "To apply for a Dust Control permit, an applicant shall complete a permit application in the manner and form prescribed by the Control Officer. At a minimum, such application shall contain the following information."

Rule 310, Section 402.2: In the Notice of Final Rulemaking (NFR), propose to delete the second sentence in Section 402.2: "Applicants shall complete Maricopa County's "Application For Dust Control Permit" and submit such information as a Dust Control Plan."

Rule 310, New Section 402.3(c): In the Notice of Proposed Rulemaking (NPR), proposed to move the description of the required elements of a Dust Control Plan from standards section of Rule 310 to administrative requirements section of Rule 310. In the NPR, new Section 402.3(c) required that the control measures described in Section 305-Control Measures For Dust Generating Operations be

included in the Dust Control Plan. In the draft Notice of Final Rulemaking (NFR), propose to add Section 306-Trackout, Carry-Out, Spillage, And/Or Erosion to new Section 402.3(c), so that the control measures for trackout, carry-out, spillage, and/or erosion will also be required to be included in the Dust Control Plan. New Section 402.3(c) to read: "Appropriate control measures, or a combination thereof, as described in Section 305 and Section 306 of this rule, for every actual and potential dust generating operation."

Rule 310, New Section 402.3(c)(2): In the Notice of Proposed Rulemaking (NPR), proposed to add the following two sentences to new Section 402.3(c)(2): "Should any primary control measure(s) prove ineffective, the owner and/or operator shall immediately implement the contingency control measure(s). If the identified contingency control measure(s) is effective to comply with all of the requirements of this rule, the owner and/or operator need not revise the Dust Control Plan." In the draft Notice of Final Rulemaking (NFR), propose to delete these two sentences in new Section 402.3(c)(2), because they are already written in new Section 402.6.

Rule 310, New Section 402.3(c)(3): In the Notice of Proposed Rulemaking (NPR), proposed to move the description of the required elements of a Dust Control Plan from standards section of Rule 310 to administrative requirements section of Rule 310. In the NPR, new Section 402.3(c)(3) allowed alternative control measures to be used - control measures that were not listed in Section 305-Control Measures For Dust Generating Operations. In the draft Notice of Final Rulemaking (NFR), propose to add Section 306-Trackout, Carry-Out, Spillage, And/Or Erosion to new Section 402.3(c)(3), so that alternative control measures can be used - control measures that are not listed in Section 306-Trackout, Carry-Out, Spillage, And/Or Erosion. New Section 402.3(c)(3) to read: "A control measure that is not listed in Section 305 or in Section 306 of this rule may be chosen provided that such control measure is implemented to comply with the requirements described in Section 301 of this rule."

Rule 310, New Section 402.3(e): In the Notice of Proposed Rulemaking (NPR), proposed to move the description of the required elements of a Dust Control Plan from standards section of Rule 310 to administrative requirements section of Rule 310. In so doing, the word "roads" was inadvertently omitted from the description of one of the required elements of a Dust Control Plan. In the draft Notice of Final Rulemaking (NFR), propose to add the word "roads" to new Section 402.3(e). New Section 402.3(e) to read: "Specific surface treatment(s) and/or control measures utilized to control material trackout and sedimentation where unpaved roads and/or access points join paved areas accessible to the public."

Rule 310, Section 402.6: In the Notice of Proposed Rulemaking (NPR), proposed to add the following sentence to new Section 402.6: "At least one primary control measure and one contingency measure

must be identified in the Dust Control Plan for all dust generating sources." In the draft Notice of Final Rulemaking (NFR), propose to delete this sentence from new Section 402.6 and to add this sentence to the introduction in re-numbered Section 305-Control Measures For Dust Generating Operations. The introduction in re-numbered Section 305 to read: "When engaged in a dust generating operation, the owner and/or operator shall install, maintain, and use control measures, as applicable. The owner and/or operator of a dust generating operation shall implement control measures before, after, and while conducting dust generating operations, including during weekends, after work hours, and on holidays. At least one primary control measure and one contingency measure must be identified in the Dust Control Plan for all dust generating operations. Control measures for specific dust generating operations are described in Section 305.1 through Section 305.12 of this rule."

Rule 310, New Section 404.1(a) And New Section 404.1(b): In the Notice of Proposed Rulemaking (NPR), proposed new Section 404 .1 - to add Block permit requirements from Rule 200-Permit Requirements; Block permit requirements to be deleted from Rule 200 and to reference Rule 310. In the NPR, new Section 404.1(a) and new Section 404.1(b) referred to "canal road grading". In the draft Notice of Final Rulemaking (NFR), propose to change "canal road grading" to "canal bank and road grading". New Section 404.1(a) and new Section 404.1(b) to read in part as follows: "…including but not limited to, weed control around a prison, canal bank and road grading, and road shoulder grading."

Rule 310, New Section 404.3: In the Notice of Proposed Rulemaking (NPR), proposed new Section 404.3 - to add Block permit requirements from Rule 200-Permit Requirements; Block permit requirements to be deleted from Rule 200 and to reference Rule 310. In the NPR, the intent was that new Section 404.3 replicate the text from Rule 200: "…may submit one permit application covering multiple sites at which construction will commence within 12 months of permit issuance…" The purpose of new Section 404.3 was to make clear to stakeholders that a Block permit will not be granted if the dust generating operation does not commence within one year of issuance. However, with the other revisions proposed in Rule 310, replicating the text from Rule 200 makes new section 404.3 unclear. In the draft Notice of Final Rulemaking (NFR), propose to delete new Section 404.3 and to re-number new Section 404.4 to new Section 404.3.

Rule 310, New Re-Numbered Section 404.3: In the Notice of Proposed Rulemaking (NPR), proposed new Section 404.4 - to add Block permit requirements from Rule 200-Permit Requirements; Block permit requirements to be deleted from Rule 200 and to reference Rule 310. In the NPR, new Section 404.4 referred to "municipalities and/or utilities" while new Section 404.1 referred to "municipalities, governmental agencies, and utilities". In the draft Notice of Final Rulemaking (NFR), propose to revise new re-numbered Section 404.3 to be consistent with new Section 404.1. In the NFR, to change "municipalities and/or utilities" in new re-numbered Section 404.3 such that it reads "municipalities,

governmental agencies, and utilities." New re-numbered Section 404.3 to read: "The Dust Control permit-Block permit will cover crews that work for municipalities, governmental agencies, and utilities, including subcontractors. However, municipalities, governmental agencies, and utilities shall retain overall authority for dust control on the project."

Rule 310, Section 501.1(a): In the Notice of Proposed Rulemaking (NPR), proposed to retain original text of Section 501.1(a): "Opacity observations of a source engaging in dust generating operations shall be conducted in accordance with Appendix C, Section 3-Time Averaged Methods Of Visual Opacity Determination Of Emissions From Dust Generating Operations." In the draft Notice of Final Rulemaking (NFR), propose to delete "a source engaging in" to make Section 501.1(a) consistent with the introductory statements in Section 501.1(b) and Section 501.1(c). Section 501.1(a) to read: "Opacity observations of dust generating operations shall be conducted in accordance with Appendix C, Section 3-Time Averaged Methods Of Visual Opacity Determination Of Emissions From Dust Generating Operations."

Rule 310, New Section 501.1(d): In the Notice of Proposed Rulemaking (NPR), Section 501.1 described test methods to determine compliance with visible emissions requirements for dust generating operations, an unpaved parking lot, and an unpaved haul/access road. In the draft Notice of Final Rulemaking (NFR), propose to add new Section 501.1(d), which will describe the test method to determine compliance with the property line standard - by conducting observations in accordance with EPA Reference Method 22. New Section 501.1(d) to read: "Visible Emissions Beyond The Property Line: Opacity observations of any visible emissions beyond the property line shall be conducted in accordance with EPA Reference Method 22."

Rule 310, New Section 504.4: In the Notice of Proposed Rulemaking (NPR), Section 504 listed and described test methods adopted by reference. In the draft Notice of Final Rulemaking (NFR), propose to add new Section 504.4, which will list and describe the test method to determine compliance with the property line standard - by conducting observations in accordance with EPA Reference Method 22. New Section 504.4 to read: "EPA Reference Method 22 ("Visual Determination Of Fugitive Emissions From Material Sources And Smoke Emissions From Flares"), 2000 edition."

Rule 310.01, New Section 103.7: In the Notice of Proposed Rulemaking (NPR), the following text was proposed to be deleted from re-numbered Section 221-Definition Of Open Areas And Vacant Lots and added to new Section 103.7: "Vacant portions of residential or commercial lots that are immediately adjacent and owned and/or operated by the same individual or entity are considered one vacant open area or vacant lot." In the draft Notice of Final Rulemaking (NFR), propose to delete new Section 103.7 and return the text to re-numbered Section 221.

Rule 310.01, New Section 103.8: In the Notice of Proposed Rulemaking (NPR), the following text was proposed to be deleted from re-numbered Section 231-Definition Of Unpaved Roadway (Including Alleys) and added to new Section 103.8: "For the purpose of this rule, an unpaved roadway (including alleys) is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles." In the draft Notice of Final Rulemaking (NFR), propose to delete new Section 103.8 and return the text to re-numbered Section 231.

Rule 310.01, New Section 203: In the Notice of Proposed Rulemaking (NPR), proposed to add the definition of area accessible to the public, which was proposed to read: "Any parking lot or public roadway that is accessible to public travel primarily for purposes unrelated to the dust generating operation." In the draft Notice of Final Rulemaking (NFR) instead-of using the term "accessible" in the definition of area accessible to the public, propose to delete "is accessible to" and to add "can be approached, entered, or used for." The definition of area accessible to the public to read: "Any parking lot or public roadway that can be approached, entered, or used for public travel primarily for purposes unrelated to the dust generating operation."

Rule 310.01, New Section 210: In the Notice of Propose Rulemaking (NPR), the phrase "technology-based emission limitation under the permit" was included in the proposed definition of emergency. In the draft Notice of Final Rulemaking (NFR), propose to delete the phrase "technology-based emission limitation under the permit" and to add the phrase "limitation in this rule." New Section 210 - definition of emergency to read: "A situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a limitation in this rule, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include any noncompliance due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error."

Rule 310.01, Re-Numbered Section 221: In the Notice of Proposed Rulemaking (NPR), the following text was proposed to be deleted from re-numbered Section 221-Definition Of Open Areas And Vacant Lots and added to new Section 103.7: "Vacant portions of residential or commercial lots that are immediately adjacent and owned and/or operated by the same individual or entity are considered one vacant open area or vacant lot." In the draft Notice of Final Rulemaking (NFR), propose to return the text to re-numbered Section 221 and to delete new Section 103.7.

Rule 310.01, Re-Numbered Section 231: Propose to add to the definition of unpaved roadway (including alleys) "any other property dedicated or otherwise reserved for public or private street uses,

as evidenced by a recorded document, or having thereon a public easement for such use". When developing proposed new ordinance P-28-Off-Road Vehicle Use In Unincorporated Areas Of Maricopa County, one of the main categories in which public comment and discussion were focused included the definition of road or highway. Stakeholders expressed the following concerns: clarify where designated and open trails fall, address service roads, and address private roads. In response to those concerns, the Maricopa County Air Quality Department (MCAQD) reviewed state statutes, the Code of Federal Regulations, and the Maricopa County Zoning Ordinance and consulted with a group of public and trust Land Managers and developed the following language to supplement the definition of road or highway that the MCAQD initially proposed: "For the purposes of this definition the term "road or highway" also includes designated or opened trail systems, service roads regardless of surface composition, and any other property dedicated or otherwise reserved for public or private street uses, as evidenced by a recorded document, or having thereon a public easement for such use." To maintain consistency among rules and ordinances in the Maricopa County Air Pollution Control Regulations, the definition of unpaved roadway (including alleys) in Rule 310.01 is now proposed to read: "A road that is not paved and that is owned by Federal, State, county, municipal, or other governmental or quasi-governmental agencies. An unpaved roadway (including alleys) includes designated or opened trail systems and service roads regardless of surface composition and any other property dedicated or otherwise reserved for public or private street uses, as evidenced by a recorded document, or having thereon a public easement for such use."

Rule 310.01, Section 302.4(c)(3): Propose to change "achieve the compliance determinations described in Section 501 of this rule" to "achieve the compliance determinations described in Section 302.4(a) of this rule."

Rule 310.01, Section 302.5(c)(3): Propose to change "achieves the compliance determinations described in Section 501 of this rule" to "achieves the compliance determinations described in Section 302.5(a) of this rule."

Rule 310.01, Re-Numbered Section 302.6(c)(2): Propose to change "achieves the compliance determinations described in Section 501 of this rule" to "achieves the compliance determinations described in Section 302.6(a) of this rule."

Rule 310.01, New Section 302.7(a): Propose to delete "a non-traditional source of fugitive dust that involves" from new Section 302.7(a). New Section 302.7(a) is proposed to read: "The owner and/or operator of unpaved roadways (including alleys) shall not cause or allow visible fugitive dust emissions to exceed 20% opacity and either Section 302.7(a)(1) or Section 302.7(a)(2) of this rule."

Rule 310.01, New Section 302.7(c)(1) and New Section 302.7(c)(2): To change "to use an unpaved roadway (including an alley)" to "on an unpaved roadway (including an alley)."

Rule 310.01, New Section 302.7(c)(2): To add "A person, who allows 150 vehicle trips or more per day on an unpaved roadway (including an alley) in the $PM_{10}$ nonattainment area,

Rule 310.01, New Section 302.7(c)(2): Propose to delete "two separate 24-hour traffic counts shall be conducted" and to add "A traffic count shall measure vehicular traffic over a 48-hour period, which may consist of two non-consecutive 24-hour periods. Vehicular traffic shall be measured continuously during each 24-hour period." New Section 302.7(c)(2) is now proposed to read: "A person, who allows 150 vehicle trips or more per day to use an unpaved roadway (including an alley) in the $PM_{10}$ nonattainment area, shall be responsible for conducting vehicle counts/traffic counts to determine if 150 vehicle trips or more per day occur on an unpaved roadway (including an alley). A traffic count shall measure vehicular traffic over a 48-hour period, which may consist of two non-consecutive 24-hour periods. Vehicular traffic shall be measured continuously during each 24-hour period. The average vehicle counts/traffic counts on the highest trafficked days shall be recorded and provided to the Control Officer in writing within 60 days of verbal or written request by the Control Officer."

Rule 310.01, New Section 302.7(c)(3)(a): Propose to change "Section 302.8(a)" to "Section 302.7(a)."

Rule 310.01, New Section 302.8(b)(4): Propose to add three control measures for corrals, pens, and arenas. Proposed three control measures are similar to control measures included in "Handbook For Conservation Management Practices For San Joaquin Valley-Minimizing Agricultural PM10 From Animal Feeding Operations (AFOs)-Dairies And Feedlots" dated May 2004. New Section 302.8(b)(4) proposed to read: (a) Apply water; (b) Install shrubs and/or trees within 50 feet to 100 feet of corrals, pens, and arenas; (c) Scrape and/or remove manure; (d) Apply a fibrous layer (i.e., wood chips) in working areas; or (e) Apply and maintain an alternative control measure approved in writing by the Control Officer and the Administrator."

Rule 310.01, New Section 302.8(c)(2): Propose to change "achieve the compliance determinations described in Section 501 of this rule" to "achieve the compliance determinations described in Section 302.8(a) of this rule."

Rule 310.01, New Section 302.10: Propose to change "130 vehicle trips or more per day in Area A" to "150 vehicle trips or more per day in the PM10 nonattainment area."

Rule 310.01, New Section 302.10(c)(3): Propose to change "achieves the compliance determinations described in Section 501 of this rule" to "achieves the compliance determinations described in Section 302.10(a) of this rule."

Rule 310.01, New Section 501.1(b): To delete "302.4".

**13. A summary of the comments made regarding the rule and the department response to them:**

The Maricopa County Air Quality Department conducted six Public Workshops throughout the rulemaking process for the Five Percent Plan Rulemaking Project – April-August 2007 - and received formal comments during the formal comment period – November-December 2007 - from Arizona Public Service (APS) And Salt River Project (SRP), Arizona Associated General Contractors, Arizona Chamber Of Commerce, Arizona Contractors Association, Inc., Arizona Department Of Agriculture, Arizona Department Of Transportation (ADOT), Ballard Spahr, City Of Mesa, El Paso Natural Gas, Farnsworth Development, Home Builders Of Central Arizona, Joint Environmental Task Force, Maricopa County Department Of Transportation (MCDOT), (4) Private Citizens, SCS Engineers, and Waste Management Of Arizona, Inc. The formal comments and the MCAQD's responses to such formal comments are written below:

**Rule 200, Section 300:**

**Comment #1**:

MCAQD should identify and include Dust Control Block Permits in this paragraph list.

**Response #1:**

Rule 200 describes the types of permits that the MCAQD issues. Requirements specific to each type of permit are described in further detail in individual rules in the Maricopa County Air Pollution Control Regulations. Dust Control permits, as described in Rule 200, are a type of permit the MCAQD issues. Details about Dust Control permits are described in Rule 310. Block permits are a sub-set of Dust Control permits. Block permits are described in Rule 310, Section 404.

**Comment #2:**

Several comments recommend that the references to other sections made within this section, 301, be corrected from "Section 302 thru Section 305" to "Section 302 through Section 305 and Section 307".

**Response #2:**

The MCAQD will correct the references in Rule 200, Section 301. This correction will be documented in the Notice of Final Rulemaking.

**Comment #3:**

Is "area source" defined in MCAQD rules?

**Response #3:**

Yes, "area source" is defined in Rule 100, Section 200.18.

**Comment #4:**

In Section 305, the MCAQD should clearly identify where the primary responsibility for obtaining a dust control permit resides. A property owner may not have direct supervisory or operational control over the dust generating activity caused by a hired contractor or operator. Is MCAQD intending for property owners to obtain the relevant dust control permits before any dust generating activity caused by a contractor or operator hired by the property owner? Or alternatively, does MCAQD intend the contractor or operator of the dust generating activity to possess the primary responsibility to obtain the dust control permit?

**Response #4:**

Section 302.4 of Rule 310 as well as Section 305 of Rule 200 clearly indicate that both the owner and the operator (or other designated official of the owner/operator) are responsible for ensuring a dust control permit has been obtained before any dust generating activities occur. Dust Control Permits are site-specific; therefore only one permit is needed per site. The purpose of this section is to make clear that there is shared responsibility by the owner; operator or responsible official in ensuring an applicable permit is obtained before dust generating operations commence. Neither owner nor operator nor responsible official can circumvent dust control permit requirements by claiming it is the sole responsibility of one particular party to obtain the required dust control permit. The Department has no ability to intervene in contractual issues.

**Rule 310, General Comments:**

**Comment #5:**

First and foremost, we believe the current Rule 310 may be sufficient to regulate the permitted community had the County Air Quality Department been given the necessary resources to fulfill the previous commitments made in 2004. Adding new provisions onto an existing rule without testing out the effectiveness of the current rule under the present environment is onerous and will present problems with compliance.

**Response #5:**

From July 2006 through January 2007, the MCAQD conducted a rule effectiveness study for Rules 310, 310.01 and 316. The results were described in the Notice of Proposed Rulemaking. Even with additional personnel, the MCAQD staff will only inspect sites periodically. Permit holders are responsible for maintaining consistent compliance and could also have improved their site management efforts in the past several years so that another SIP revision would not have been necessary. Consistent compliance that will result in emission reductions requires the efforts of all affected parties and all must step up to meet the challenge to reduce $PM_{10}$ in Maricopa County. Specifically under Section 189(d) of the Clean Air Act, the state was required to submit State Implementation Plan (SIP) revisions which provide for attainment of the $PM_{10}$ air quality standard in Maricopa County and, from the date of such submission until attainment, for an annual reduction in $PM_{10}$ or $PM_{10}$ precursor emissions within the area of not less than 5% of such emissions as reported in the most recent inventory prepared for such area. $PM_{10}$ emissions from Rule 310 sources are

significant and account for over 38% of the 2005 Periodic Inventory. In order for the Five Percent Plan to be effective, additional reductions from this source category are necessary. For the Five Percent Plan for $PM_{10}$, an analysis was again conducted to identify additional measures to reduce emissions and/or improve compliance with existing requirements. In addition, the Arizona State Legislature enacted SB 1552 that also contains requirements for additional control measures that were included in the proposed revisions to the rules proposed in this notice. The MCAQD also reformatted the rules and clarified text to address concerns and comments that arose in the enforcement process. Finally, the MCAQD also added, in Rules 310 and 310.01, several control measures that were adopted in June 2005 as BACM/MSM in Maricopa County Air Pollution Control Regulations Rule 316.

**Rule 310, Section 100:**

**Comment #6:**

For fairness and maximum emission reductions, significant sources, such as vacant lots and unpaved roads, should be subject to the same emission control requirements as permitted sources. Accordingly, rather than different rules for permitted and unpermitted sources, HBACA recommends that all fugitive dust sources be subject to Rule 310. This does not mean that all unpermitted sources would require permits. Vacant lots and unpaved roads could be excused from permitting requirements as they are currently.

**Response #6:**

Unpermitted sources present unique challenges to reducing particulate emissions and are subject to emission control requirements as consistent with those that apply to permitted sources as appropriate given the legal, technological and economic feasibility issues associated with those source categories. Land use approvals, property rights, multiple property owners, shared easements, unoccupied properties, and the very large number of such sources are a few of the complications that must be addressed with unpermitted sources. Activities at permitted sources are initiated to conduct business, usually manned, and under common control whether direct or through contract.

**Comment #7:**

MCAQD should include transportation emergency repair activities as those necessary to return the transportation system to functional status in this rule paragraph.

**Response #7:**

MCAQD maintains that the current language of this section best describes the intent of the section. Emergency repair activities will be judged against the criteria described in this section. There are too many different types of governmental agencies to include language specific to each agency's mission.

**Comment #8:**

Provision should not discriminate against private agencies.

**Response #8:**

The exemption in Rule 310, Section 103.3, for public protection and restoration of critical public utilities (which is also critical to public protection) does not constitute discrimination. This exemption is based on the activity conducted (i.e., protection of the public and not the nature of the agency).

**Comment #9:**

Strike "been completed" and replace with "ceased".

**Response #9:**

Rule 310, Section 103.4 was originally in the SIP approved definition of "disturbed surface area". Rule 310, Section 103.4 has been created to make it clear which activities are exempt from Rule 310.

**Comment #10:**

Several commenters suggest this section be revised to accommodate the potential for trespassers, as follows: "An unpaved road is not a horse trail, hiking path, bicycle path, or other similar path for which the designated use is for purposes other than travel by motor vehicles." This change is necessary as the owner/operator of the path should not be held accountable for illegal activity beyond their control.

**Response #10:**

A blanket exemption for trespassing is not appropriate and relaxes the rule. The department has no way to distinguish the vehicles of trespassers from those driven by legitimate employees. The owner/operator is ultimately responsible for conditions and emissions coming from their properties. The owner/operator will need to investigate why illegal activity is occurring, take steps to minimize the activity and mitigate the effects of that activity. The owner/operator can present information regarding the circumstances leading to a Notice of Violation should the situation escalate to the enforcement stage.

**Rule 310, Section 200:**

**Comment #11:**

A clear definition of utilities should be added to the definitions. Throughout the regulations, whenever "utilities" are referenced a parenthetical definition follows. For consistency and clarity, all definitions should be contained in a Definitions section. An oil pipeline is not typically considered a "utility". Utilities should include interstate gas transmission and interstate gas transmission in addition to local gas distribution. Consider the definition of Utilities - Transmission or distribution of electricity, natural gas, oil and other petroleum products, water, gasoline including interstate natural gas transmission and intrastate natural gas transmission.

**Response #11:**

MCAQD maintains that the parenthetical definitions of utilities described in this rule best reflect the intended applicability of the Rule.

**Comment #12:**

Current Rule 310 and proposed Rule 310.01 include the term, "area accessible to the public" (defined as, "Any parking lot or public roadway that is accessible to public travel primarily for purposes

unrelated to the dust generating operation"). Rule 310, Section 201; Proposed Rule 310.01, Section 203. This term creates confusion because the new term sounds like it is related to the definition elsewhere in the County rules for "ambient air" (i.e., "That portion of the atmosphere, external to buildings, to which the general public has access.") See Rule 100, Section 200.13. The "ambient air" definition serves important but unrelated purposes under unrelated parts of the air program, including stationary source permitting. In response to a question at the July 19, 2007 public meeting, MCAQD explained that the term "area accessible to the public" is used for a unique purpose concerning trackout controls. Moreover, the definitions section in Rule 310 begins with this restrictive phrase, "For the purpose of this rule, the following definitions shall apply." Thus, it appears that MCAQD correctly does not intend that this term and its definition have any effect on the unrelated definition or interpretation of "ambient air" in Rule 100, § 200.13. In order to avoid future confusion or controversy, the Chamber requests that MCAQD formally state that the term "area accessible to the public" and its definition in Rules 310 and 310.01 do not have an effect on the definition or interpretation of "ambient air" in Rule 100, Section 200.13. However, it would be preferable to use a term other than "area accessible to the public" in Rules 310 and 310.10. For example, either "paved public parking/travel area" or "public parking/travel area" would be a good, non-controversial substitute for "area accessible to the public." This change also would avoid the circularity and the lack of clarity caused by using "accessible" in both the term being defined and in its definition.

**Response #12:**

The definition of "area accessible to the public" was adopted in 2004 to close a loophole that allowed several permittees to use parking lot surfaces as trackout control devices without restricting public travel during work hours. The revision is intended to clarify at what physical point trackout must be controlled and cleaned up. Based on the recommendations of the MCAQD Dust Compliance and Enforcement Divisions, the current revisions to this definition are proposed to address additional construction site locations such as schools, churches, and gated subdivisions. The terminology in this definition specifically addresses the circumstances encountered when conducting dust generating operations. This definition in conjunction with rule limitations allows paved public parking/travel areas to be used as trackout control devices provided that 1) the surface is designated as a trackout control device in an approved dust control plan, 2) barriers are installed to prevent the public from using the surfaces when construction activities are occurring, and 3) all trackout is cleaned up before the public is allowed to use the surface. For example, lanes are frequently barricaded and closed at night or over a weekend and reopened to accommodate rush hour traffic during roadwork. The definition further qualifies access for public by the phrase "public travel primarily for purposes unrelated to the dust generating operation." When evaluating stationary source permits under the procedures and provisions of Regulation II, the terms, definitions, and provisions contained in those rules will apply to the review of stationary source applications. The determination of "ambient air" in relation to any stationary source permit application will continue to be made on a case-by-case basis

given the specific site configurations and circumstances of each applicant. The MCAQD does not agree with the suggested fix because changing the terminology from "area accessible to the public" to "public parking/travel area" is less clear when applied to these circumstances. The Department has replaced the phrase “is accessible to” in the description of the definition with the phrase “can be approached, entered, or used for”.

**Comment #13:**

A number of comments addressed the definition of “bulk materials”. Several comments requested that items listed in "bulk material" be defined. Other comments requested that manure or animal waste be added while another comment felt that several terms were duplicative and other terms restricted to materials less than 2 inches in diameter.

**Response #13:**

The definition of bulk material is consistent with the definitions currently in the State Implementation Plan and other MCAQD air quality rules and matches that included in Rule 316. The dust generating operations delineated under Section 203 represent an illustrative, not exhaustive, list of possible materials. The test methods listed in the rule further refines what materials are regulated by the rule. The definition of manure is self-evident. In addition, animal waste in general is regulated under Rule 310.01. No further definition refinement is required.

**Comment #14:**

"Piling" and "moving" are vague and redundant of more specific terms transporting, unloading, and stacking.

**Response #14:**

The MCAQD has opted to be more inclusive as the terms “piling” and “moving” are used by affected sources in the field. The definition of “bulk material handling, storage, and/or transporting operation” is consistent with the definitions currently in the State Implementation Plan and other MCAQD air quality rules; therefore, the MCAQD is not changing the definition at this time.

**Comment #15:**

Rather than list specific control measures, reference Section 305.

**Response #15:**

The list of possible control measures was added in response to EPA comments and is part of the State Implementation Plan; therefore, MCAQD is not changing the definition at this time.

**Comment #16:**

"Control Measure" - Sand and gravel mining operations require watering DURING operations, not just pre-watering.

**Response #16:**

Rule 310, Section 205 defines the term "control measure" and lists several control measures. Pre-watering is just one example of a control measure that may be required to reduce $PM_{10}$. Specifically, to pre-water the site to depth of cuts and to allow time for penetration is one of two control measure

options before disturbed surface areas are created. However, while disturbed surface areas are being created, the source must apply water or other suitable dust suppressant other than water, apply water as necessary to maintain a minimum of 12% soil moisture content, or implement a control measure described in Rule 310, Section 305.11(b)(1) or Section 305.11(b)(2) and 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 a site.

**Comment #17:**

Dust Control Plan - Specify that an approved Dust Control Plan must be available before operations begin under the new or revised permit.

**Response #17:**

Rule 310, Section 302.1 requires an approved Dust Control Plan prior to commencing a dust generating operation. The purpose of Rule 310, Section 402 is to define the nature of a dust control plan. Sections 402.1 and 402.2 both state that a dust control plan must be submitted before any dust generating activities occur when a permit is required. Also, Section 405 states that a Dust Control permit application or revision must be approved or denied by the MCAQD within 14 days of receipt. This would include any approval action taken on the Dust Control Plan that would be a required part of the Dust Control permit application or revision. The MCAQD believes 14 days is a reasonable and prudent amount of time to approve or deny a permit and its associated documents, including the Dust Control Plan.

**Comment #18:**

Clearly define what the specific activities in "Dust Generating Operation" includes. For example what types of activities are included in “construction activities”? Clark County [NV] has a list of 16 types of "construction activities".

**Response #18:**

Rule 310, Section 209 broadly defines a dust generating activity with the beginning phrase "Any activity capable of generating fugitive dust…", therefore a specific listing of sub-activities (like types of construction activities) is not necessary as all construction activities that generate fugitive dust are subject to this definition.

**Comment #19:**

Several comments express concern that the proposed definition of dust generating operation is too broad and would have unintended consequences. The definition is not specific to activities that actually generate dust. Under the proposed definition, for example, any activity involving the "operation of any outdoor equipment" or the "operation of motorized machinery" at Title V sources would require a Dust Control Plan, even if the operation of such equipment or machinery is nowhere near an area in which fugitive dust could be generated. See Sections 209.9, 209.10 and 302.3. As another example, any "property owner" who "operates . . . a dust generating operation" (which is defined to include things such as construction, operating outdoor equipment, and operating motorized machinery) is required to

obtain a permit, regardless of where the activity occurs or whether dust is actually generated. Other examples where dust permits would be required include: Installation of a sprinkler system on a residential property if mechanized equipment is used to dig the necessary "trenches"; Operation of a lawnmower or weed trimmer; and Utilization of a playground with a sand-based floor. These types of activities (and many others) should not be regulated under Rule 310, and the definition of "Dust Generation Operation" should be modified accordingly. As currently written, there is nothing in the Section 209 definition of "Dust Generating Operation," or in the requirements set forth in Section 302, that restrict the obligation to obtain a permit to persons who actually generate dust. The language is far too broad and should be expressly limited to activities that actually generate dust. We understand that the intent of this rule is to focus on those activities that are of primary concern with regards to the particulate matter non-attainment issues occurring in the county. We therefore encourage the MCAQD to restrict the requirements of Rule 310 to activities that actually generate dust. In addition, certain other minor activities should be encompassed within Rule 310.01, which does not require an air quality permit or dust control plan, but does require the use of control measures to reduce fugitive dust emissions. Definition should be limited to anthropomorphic sources. 209.3 through 209.8 are already in earthmoving definition, so inclusion here is redundant. 209.9 should be revised as follows: "209.9 Operation of any outdoor equipment haul trucks or other motorized machinery in conjunction with or for the purposes of conducting activities listed in subsections 209.1 and 209.2." 209.10 through 209.14 should be deleted, because unrelated to the purposes for which a permit is obtained and do not meet the definition of "source" and "building, structure, facility, or installation". For example, as crafted, operating motorized machinery is a dust generating operation. Dust generating operations that disturb more than 0.1 acre require a permit. Accordingly, a permit would be necessary to operate a vehicle on a county road under this proposal.

**Response #19:**

Rule 310, Section 209 states that a dust generating activity must first be “capable of generating fugitive dust” for the definition to be applicable to the list of example sources included in the definition. If the machinery the commenter mentions is “nowhere near an area in which fugitive dust could be generated”, then that machinery is not capable of generating fugitive dust and would not be considered a dust generating operation; and thus not be subject to the provisions of Rule 310. Additionally, Rule 310 does not require permits for specific pieces of equipment, but rather for the control of fugitive dust generated by that equipment. This is an important distinction, and explains why construction equipment does not have permits, but rather only when construction equipment is used to disturb surface areas are the requirements for a permit and the Rule in general triggered. It is important to remember that Section 302 of Rule 310 provides the applicability of which sources need a permit for dust generating activities. The example given by the commenter (installation of residential sprinkler system) while technically dust generating activities would almost never approach the permit threshold of disturbing a surface area larger than 0.10 acres as described in Section 302.1. If those activities do

disturb areas larger than 0.10 acres, then the MCAQD believes it is prudent and necessary for those activities to require a permit. Other examples given by the comments (operation of a lawn mower or weed trimmer, utilization of a playground with sand-based floor, and the public driving on a county unpaved road) are exempted under Sections 103.2, 103.5, and 103.6. The MCAQD is not changing the definition at this time.

**Comment #20:**

Dust Generating Operation - Include reclamation in this category. If any of the operations listed are part of sand and gravel mining, then fugitive dust from these operations should be calculated for each permit; especially for the excavation operation. This is a big loophole that needs to be taken into account.

**Response #20:**

The calculations of fugitive and process emissions that determine the potential to emit (PTE) for a source required to obtain a Title V, Non-Title V, or General permit is regulated by the provisions contained in Regulation II. The inclusion of reclamation in this definition would have no effect on calculation of PTE.

**Comment #21:**

Define "motorized machinery" and "outdoor equipment".

**Response #21:**

Categories were added to clarify the intent of the section. The dust generating operations delineated under Section 209 represent an illustrative, not exhaustive, list of possible activities. No further definition refinement is required.

**Comment #22:**

Earthmoving operations - Include reclamation in this category.

**Response #22:**

Categories were added to clarify the intent of the section. The earthmoving operations delineated under Section 211 represent an illustrative, not exhaustive, list of possible activities. No further definition refinement is required.

**Comment #23:**

The MCAQD should include the emergency repair of transportation systems to this definition. Transportation systems are critical infrastructure and fall into the same category of care as power systems, drinking water, waste water and other utilities.

**Response #23:**

Transportation system repairs are routinely covered under a block permit. It has been the Department's experience that traffic can be directed to a detour leading to personal inconvenience until the repair can be completed. In contrast the loss of the systems covered in Rule 310, Section 213 can be life threatening conditions.

**Comment #24:**

Discriminatory definition, should not exclude private sector. Phrase "technology-based emission limitation under a permit" should be replaced with "limitation in this rule".

**Response #24:**

The purpose of Section 213 is to provide an exemption only to essential public utilities which are critical to public health and welfare. If the private sector operates and manages an essential public utility, then this defined emergency activity would be covered by this exemption. MCAQD agrees with the comment regarding the phrase "technology-based emission limitation under a permit" and has replaced the phrase in Section 212 definition of "emergency" with "limitation in this rule".

**Comment #25:**

Several comments suggest that the MCAQD provide a better definition of "end of work day". As currently defined, it is ambiguous as to what is considered to be the end of the work day except that it must not be later than 8 pm.

**Response #25:**

The MCAQD will amend this definition to read, "The end of a working period that may include one or more shifts. If working 24 hours a day, the end of a working period shall be considered no later than 8 pm."

**Comment #26:**

Add after "capture", "a control system"; if airborne dust is controlled by a spray bar system, for example, is it still fugitive dust? Definition must exclude natural sources, including wind. Otherwise, wind would meet definition of a dust generating operation for which a permit is required. Also, concrete and tile cutting should be explicitly excluded.

**Response #26:**

MCAQD used the definition found in EPA reference documents. The definition in this section remains unchanged from the existing rule adopted by EPA.

**Comment #27:**

Insert "pad" after "Minimum" in last sentence.

**Response #27:**

The MCAQD is not changing the definition as the proposed modification does not add clarity to the definition.

**Comment #28:**

Several comments recommend that the proposed additional language for this definition be moved to Section 306, as this language pertains to operating requirements for the gravel pad.

**Response #28:**

Rule 310, Section 306 requires the installation and utilization of trackout control devices and does not address each possible type of device individually. The only reference to a gravel pad occurs in the definition of trackout control device in Section 228, thus this definition for gravel pad is clarifying

another definition. This additional language is necessary to define when the layer of gravel will qualify as a trackout control device.

**Comment #29:**

Several comments state that the dimensions listed may be problematic in certain situations such as for single lane entrance/exits. They suggest revising the definition to "width of the outgoing travel lane" or "If practicable, a gravel pad should Minimum dimensions must be 30 feet wide by 3 inches deep, and, at minimum, 50 feet long or the length of the longest haul truck, whichever is greater."

**Response #29:**

A gravel pad is only one option that can be selected as a trackout control device. A permittee has the option of selecting another device to fit their site specific circumstances or applying for approval the gravel pad with smaller dimensions as an alternative control measure under Rule 310, Section 402.3(c)(3). The Department will add “Section 306.1(b)” to Section 402.3(c)(3) to be consistent with the provision the existing rule.

**Comment #30:**

MCAQD should consider adding language to Rule 310, Section 222-Definition Of Off-Road Vehicle to emphasize the recreational nature of the listed examples. A road scraper or bulldozer could be included in this definition as it is currently written and clearly from the listed examples, neither are recreational vehicles.

**Response #30:**

The term “off-road vehicle” is used in Rule 310, Section 205-Definition Of Control Measure. The MCAQD will take the suggestion under advisement. Rule 310, Section 222-Definition Of Off-Road Vehicle is a carry-over from the existing rule and is not a change or addition to Rule 310. The MCAQD is not addressing previously approved rule language in this rulemaking.

**Comment #31:**

In the definition of "open storage pile," it is assumed the silt content of the storage pile is greater than 5 percent unless testing is conducted to show that it is less than 5 percent. It is unclear how often testing would be required to demonstrate that an open storage pile has a silt content of less than 5 percent. For example, if there is a storage pile of washed gravel at a site, which inherently has extremely minimal silt content, how often would it need to be tested? Furthermore, in this example, it is clearly not necessary to test to confirm that the silt content is less than 5 percent; this can be determined through visual observation alone. Another comment requested that the definition should include exclusion for washed materials, which would not have 5% silt content and should not require testing.

**Response #31:**

The MCAQD recognizes the results of the laboratory tests that document the specifications of washed products. A pile of washed materials can become contaminated depending upon site activities, so total exclusion is not necessarily appropriate. However, inspectors perform visual checks of piles. Based on

the frequency of activity, a permittee may also choose to use visual checks to ascertain if the pile of washed materials has become contaminated.

**Comment #32:**

The MCAQD should clearly identify where the primary responsibility for obtaining a dust control permit resides. A property owner may not have direct supervisory or operational control over the dust generating activity caused by a hired contractor or operator. Is MCAQD intending for property owners to obtain the relevant dust control permits before any dust generating activity caused by a contractor or operator hired by the property owner? Or alternatively, does MCAQD intend the contractor or operator of the dust generating activity to possess the primary responsibility to obtain the dust control permit?

**Response #32:**

See the response to comment #4.

**Comment #33:**

Is a "person" in this definition identical to the "Owner and/or Operator" identified in a previous definition?

**Response #34:**

Rule 100, Section 200.78 contains the current definition of "person" and includes “owner/operator”.

**Comment #35:**

Definition in Section 226 is unnecessary and unenforceable in the field.

**Response #35:**

This definition clarifies a standard in a proposed rule. Further, permit applicants are required to include a site plan with project boundaries with the application and dust control plan.

**Comment #36:**

The MCAQD should consider establishing a threshold value (0.10 acre) for an unpaved parking lot. As this definition is drafted, a parking lot could be one square foot or less. A permit threshold area as established in Rule 200 Section? 302.1 would clarify this definition. Another comment states that no change necessary to current definition concerning area limitation. As proposed, one car idling onsite would render that spot an unpaved parking lot.

**Response #36:**

The MCAQD’s intent is to be consistent with Senate Bill 1552. The definition does not establish permit thresholds. A single idling vehicle does not provide much information to an inspector on what’s happening onsite. Typically, the MCAQD looks for parked vehicles and supplies to indicate where unpaved parking is occurring. The MCAQD does not agree that a reasonable person automatically assumes an idling car renders the spot an unpaved parking lot. The MCAQD consults the approved Dust Control Plan when questions arise.

**Comment #37:**

Are "Visible emissions" as identified by this definition an opacity standard evaluation? If so then what method is to be used to determine compliance? If not, then what evidence is sufficient to establish evidence of visible emissions?

**Response #37:**

“Visible emissions" in this definition simply refer to any level of dust in the atmosphere that is observable by the naked eye.

**Comment #38:**

"Wind Event" - This needs to be redefined. Wind events as low as 10 mph can cause excessive $PM_{10}$ pollution. Re-evaluate this criterion based on real time data from the monitoring network.

**Response #38:**

The intent of this definition is to point out those wind events that are certain to generate large $PM_{10}$ emissions and overwhelm best available control measures (BACM). While lower speed winds can also generate $PM_{10}$ emissions, those wind speeds do not overwhelm BACM. For purposes of Rule 310, the MCAQD believes the current definition in Section 236 meets this criterion.

**<u>Rule 310, Section 300:</u>**

**Comment #39:**

In the proposed amendment to Rule 310 there is a new General Practices provision that Maricopa County claims summarizes the general conditions that are citable offenses under section 301. Our understanding is this listing is meant only to clarify the rule’s requirements and to make it easier to understand. The County should clarify these General Provisions so as not to cause double jeopardy to the permitted source when issuing a NOV. For example, XYZ Company is issued a NOV for Track-out under the work practice section, and then issued a similar second NOV under 301 for failure to comply with the General Provisions of the Rule and Dust Control Permit / Plan. We need a clear interpretation or guidance when new inspectors are hired years [sic] as to intent and consistency of inspections. Another comment recommends that it would make more sense to provide a guidance document that clarifies what constitutes a violation of the rule. This section could then be removed.

**Response #39:**

The purpose of the proposed change was to summarize general requirements for dust generating operations, not to increase the possible number of violations cited by MCAQD. The explanation section in the Notice of Proposed Rulemaking and in the Notice of Final Rulemaking indicates that the MCAQD is proposing a General Requirements Section that includes an extensive list to summarize and remind owners of all the various requirements contained in Rule 310. Following Clark County’s example, the MCAQD is including a similar list in the rule itself as guidance documents that accompanied this rule in the past have not necessarily been widely read. The MCAQD confirms yet again that the Department will not reference Section 301 when issuing a Notice to Comply or Notice of Violation.

**Comment #40:**

Specify what type of permit is needed. If this is not mining, say so.

**Response #40:**

Rule 200 indicates the specific types of permits needed depending on the type of source.

**Comment #41:**

Several comments recommend revising this section to refer specifically to Dust Control Permits and Dust Control Permit revisions only, rather than generic references to "permits" or "permit revisions.

**Response #41:**

The MCAQD has designed the scope of the rules to covers all permits.

**Comment #42:**

Rule 310, Section 302.2 is unnecessary and incapable of consistent enforcement in the field. How will inspector know whether one site is under common control with another?

**Response #42:**

The MCAQD inspectors do have access to a dust control permit database that allows for discovery of sites under common control. Further, this section is necessary to ensure that thresholds for applicable requirements and Dust Control Permit requirements are not circumvented by artificially subdividing area under common control.

**Comment #43:**

Rule 310, Section 302.3 is identical to Section 402.1(a) and could lead to multiple violations for the same action. For this reason, we request that Section 402.1(a) be deleted. Also, as written this condition requires that a source that performs routine dust generation operation at a site that has obtained a Title V, Non-Title V, or General Permit must obtain a Dust Control Plan. This is problematic because routine is defined as "any dust generating operation which occurs more than four times per year or lasts 30 cumulative days or more per year". It is possible that the temporary storage piles at our Service Centers that have a general permit for gasoline storage would have to get a dust control plan for routine dust generating activities at the facility when the dust generating activity (storage piles) is less than one tenth of an acre. It is our position that a Service Center that has temporary storage piles created more than 4 times a year and that is less than one tenth of an acre should not be required to obtain a dust control plan merely because it has a gasoline storage general permit. APS and SRP request clarification on this matter and that this condition be modified to accommodate the example mentioned above.

**Response #43:**

The MCAQD will revise Rule 310, Section 302.3 to be consistent with Section 402.1. Section 302.3 will now read, “No person shall commence any routine dust generating operation that disturbs a surface area of 0.10 acres or greater at a site that has obtained or must obtain a Title V, Non-Title V, or General permit under Regulation II-Permits And Fees of these rules without first submitting to the Control Officer a Dust Control Plan.”

**Comment #44:**

This requirement is consistently violated in Non-Title V permits. At least 60 days is allowed before the Dust Control Plan is due. Change permits to conform.

**Response #44:**

This requirement exists in the current rule. It is the MCAQD's intent to enforce this section with regards to all permit holders. It is important to note that because the MCAQD has a unitary permit program, often Non-Title V permits may be issued before a source is built, and thus before the source can commence any dust generating operations that would require a Dust Control Plan. The MCAQD will review its standard permit conditions and revise as necessary to ensure that the Dust Control Plan is submitted and approved prior to commencement of dust generating operations.

**Comment #45:**

The MCAQD should clearly identify where the primary responsibility resides for obtaining and maintaining compliance with a dust control permit. A property owner may not have direct supervisory or operational control over the dust generating activity caused by a hired contractor or operator. Is MCAQD intending for property owners to obtain the relevant dust control permits before any dust generating activity caused by a contractor or operator hired by the property owner? Or alternatively, does MCAQD intend the contractor or operator of the dust generating activity to possess the primary responsibility to obtain the dust control permit? Another comment states that it is unclear who is responsible for obtaining the permit under this section. This is particularly true where, for example, there is an owner, a contractor, and a supervisor for a project. Is it the MCAQD's intent to require that each of these persons obtain a dust permit (i.e., three separate permits)? Is it the MCAQD's intent that only one of these persons must obtain the permit? If so, who? And who is liable under that permit? If the owner obtains a permit, and the contractor violates that permit, who is liable? MCAQD must clarify these important issues. We suggest that the party who actually performs the work be required to obtain the permit and have liability under that permit. It would be inequitable to impose liability on a party who has no control over a project. This section is also confusing due to the integrated definition of "Owner and/or Operator". The comment requests that the integrated definition of "Owner and/or Operator" be removed, and that MCAQD instead use the term itself in the section so that it reads as follows: "The ~~property owner, lessee, developer, responsible official, Dust Control permit applicant (who may also be the responsible party contracting to do the work), general contractor, prime contractor, supervisor, management company, or any person who owns, leases, operates, controls, or supervises a dust generating operation subject to the requirements of this rule~~ owner and/or operator shall be responsible for obtaining a permit or permit revision, pursuant to section 400 of this rule, from the Control Officer."

**Response #45:**

See the response to comment #4.

**Comment #46:**

APS and SRP recommend revising this section to refer specifically to Dust Control Permits, Dust Control Permit applications, and Dust Control Permit revisions, rather than generic references to "permits," "permit applications", or "permit revisions.?

**Response #46:**

See response to comment #41.

**Comment #47:**

Rule 310, Section 302.5 does not contain the qualifiers found in Rule 200, Sections 309.1, 309.2, and 309.3. No rule would be necessary if the Control Officer had the authority to impose whatever condition he deemed necessary to assure compliance with 20% opacity standard.

**Response #47:**

Rule 310, Section 400 includes existing language found in Rule 200, Section 308. Section 309 qualifies additional monitoring and sampling not specified by rule and would still apply even if not specifically listed in Rule 310. However, the testing procedures for dust generating operations are specified by rule, not by the permit under Rule 200.

**Comment #48:**

Rule 310, Section 302.7 is unnecessary and problematic. What if Rule 310 preempted in the future by state or federal law?

**Response #48:**

State and County rules govern stationary sources at all times. This language is standard in air quality permitting rules to ensure that owner/operators understand their statutory obligations. Actions at the state and federal may impose a duty on the County to revise its rules in the future as it has been obligated to do in the past. Nothing in this rule changes that obligation.

**Comment #49:**

Is the visible fugitive dust emissions property line limitation in 303.1(b) a presence or absence limitation (i.e. instantaneous) or must the 20% opacity limit in 303.1(a) be exceeded first? If 303.1(b) is an instantaneous limit, what opacity observation method will be used? Another comment requested an exception to the "zero opacity on property line" for work that occurs exactly on the property line, such as building a block wall or maintaining an unpaved road shoulder.

**Response #49:**

The property line standard in Rule 310, Section 303.1 is a presence or absence limitation. To clarify that the Department will not be enforcing on a single puff of dust, the following text, “Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six minute period as determined using EPA Reference Method 22.” has been added to Section 303.1(b). The MCAQD has added a new subsection to Section 501.1 in to determine compliance with the property line standard by conducting observations in accordance with EPA Reference Method 22. To address other feasibility concerns identified in the comments, the MCAQD is adding an exemption from the property line standard when an owner and/or operator conducts dust generating activities

within 25 feet of the property line. Further, the MCAQD also intends to issue a Notice To Comply for the first violation at sites that are applying controls and have obtained the appropriate permits. The MCAQD will modify its enforcement policy to address this new requirement.

**Comment #50:**

If Farm Cultural Practices are not exempt in Rule 303, please note that there are not classes offered to agricultural producers or livestock owners to become qualified in EPA Reference Method 9 which includes determining 20% opacity.

**Response #50:**

At least two training providers in Maricopa County offer EPA Method 9 Visible Emissions Observation Certification Training to anyone required to complete periodic visible emissions observations. While the MCAQD does not make recommendations, training is available through: The ASU Environmental Technology Management (ETM) program offers EPA Method 9 Certification training. Information on the ETM training can be found at http://www.azdeq.gov/environ/air/compliance/smoke.html or by calling (480) 727-1322. In addition, Arizona Smoke School offers Method 9 training. Information on Arizona Smoke School can be found at http://www.arizonasmokeschool.com/ or by calling (480) 226-0945. Additionally, normal farm cultural practices are exempt from Rule 310 as stated in Section 103.1.

**Comment #51:**

Require that this paragraph be enforced at night as well as during the day. Also, periodic monitoring is not sufficient to enforce this requirement.

**Response #51:**

Rule 310, Section 303.1 does apply to all times of the day, and is not limited to daylight hours. Monitoring and recordkeeping requirements for visible emissions are explained in Section 500 of the Rule.

**Comment #52:**

Several comment express significant concerns regarding this [prohibiting visible emissions at property line] condition. They support the Chamber of Commerce's September 10, 2007 comment that this condition, which prohibits visible emissions from crossing the property boundary line, is unconstitutional. We agree with the Chamber of Commerce that this condition should be removed. As written, this requirement would be impossible to comply with in many instances. Even if a source is implementing the best available control measures as required in other portions of this rule, the potential exists for visible emissions to cross the property line if a dust generating operation is occurring near the property line and there is a gust of wind. A source could violate this requirement for reasons beyond its control and regardless of its best faith efforts to comply with the rule including compliance with every requirement to limit dust in the rule. In addition, there is no indication that this requirement will result in any reduction in particulate matter emissions, since there is no credible link between opacity and particulate matter emissions. EPA itself has conceded that a "reliable and direct correlation

between opacity and PM emissions cannot be established without significant site-specific simultaneous testing of both PM emissions and opacity . . ." See 72 Fed. Reg. 18428, 18429 (April 12, 2007). MCAQD has indicated that the changes proposed in this rule are necessary to reduce particulate matter emissions in accordance with the particulate matter non-attainment area State Implementation Plan. However, it is clear that this condition will not achieve any creditable reductions. At a minimum, the MCAQD should answer the following questions related to this proposed condition: How will the MCAQD determine what point marks the property line? It would be impossible for inspectors to know where that location is, without a fence to mark the property line. Only a survey can determine conclusively where the property line is located. How will the MCAQD inspectors document the exact location where visible emissions were observed crossing the "property line," so that a source can refute the alleged violation if the visible emissions were not at the actual property line? How will the MCAQD address this issue for line-type properties, such as unpaved roads? As written now, there is no flexibility afforded to these sources even if they are implementing the control measures required by this rule. Commenters request that this provision be removed. If the MCAQD continues to believe the provision must be included, comments submit that, at a minimum, the provision should be reworded. In addition to the issues described above, it is inappropriate for this section to refer to "particulate matter, including fugitive dust". Any requirements contained in this rule should only pertain to fugitive dust, which is in keeping with the title and purpose of this rule. APS and SRP suggest the following revision: "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. The owner and/or operator shall be exempt from this requirement if it can demonstrate that it is implementing best available control measures, as defined by section 304 through 306 of this rule, and the source is in compliance with the opacity requirement in Section 303.1.a of this rule." Comment recommends 5%-10 % opacity at property boundary which is less than half of the current standard.

**Response #52:**

The EPA has refined the national ambient air quality standard for particulate matter in 1987 to inhalable particulate matter 10 microns or less in aerometric diameter since both court decisions. Unlike the two jurisdictions cited in the comment, the Phoenix $PM_{10}$ Nonattainment Area failed to meet the 24 hour $PM_{10}$ standard by December 31, 2006. As a result, residents still have the potential to be exposed to unhealthy levels of PM-10. Exceedances are recorded under both stagnant and elevated wind conditions. Secondary aerosols are not significant contributors to the exceedances recorded in Maricopa County. Geologic material (e.g. dust) remains the dominant constituent of $PM_{10}$. Locally generated $PM_{10}$ significantly contributes to recorded exceedances of the $PM_{10}$ standard and can be released from dust generating activities or any unstabilized surface, exposing residents to unhealthy levels of particulates. The property line standard can serve as a simple visual technique to monitor the dust released by the operation. To address the feasibility concerns expressed, the County is clarifying

the property line standard. First, the text, "Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six minute period as determined using EPA Reference Method 22." has been added to Section 303.1(b). Next, the Department has added text to allow an owner or operator to claim an affirmative defense during high winds. MCAQD is also adding an exemption from the property line standard when an owner and/or operator conducts dust generating activities within 25 feet of the property line to Section 303 to address concerns regarding work performed at the property line. The Department has added updated Section 500 to include EPA Reference Method 22. Further, MCAQD also intends to issue a Notice to Comply for the first violation of the property line standard at sites that are applying controls and have obtained the appropriate permits. MCAQD will modify its enforcement policy to address this new requirement. The MCAQD will develop a policy/guideline and train compliance staff to ensure consistent enforcement of the property line standard. The MCAQD disagrees that there is no credible link between opacity and particulate matter emissions. In fact the next sentence in the EPA notice cited by the comment states, "Nonetheless, because there is at least an indirect relationship between opacity and PM emissions, including the use of opacity to track the effectiveness of PM control equipment operation …" The MCAQD's goal with this proposed change is to improve the monitoring of dust control measures by providing a simple visual tool that can be applied by employees as well as by the MCAQD to evaluate the effectiveness of the dust control measure. Even though the MCAQD can not derive a quantitative correlation between opacity and PM emissions for a general rule, improving the consistency of compliance will reduce emissions and reduce the concentrations measured at the monitors. Owners and/or operators are required to provide a site plan and legal description of their permitted site with their permit application. The MCAQD inspectors carry GPS units and would be able to use those devices if necessary. However, the inspector only has to determine that emissions coming from the permitted site are present at a point that is beyond the property line. Once the inspector determines that the visible emission is generated from the permitted site and visible emission reaches a point clearly beyond the property line (e.g. a nearby public road), described and documented by the inspector, then the exact location of the property line is moot. As noted above, an exemption from the property line standard has been added for dust generating activities taking place within 25 feet of the property line. These activities will continue to be subject to the 20% opacity standard, the requirement to implement control measures including contingency measures, the requirement to obtain a permit, etc. Since visible emissions can contain other particles deposited on the site surface as well as dust, the Department does not believe that the property line standard should be limited to fugitive dust.

**Comment #53:**

The referenced provision reads: "The owner and/or operator of a dust generating operation shall not cause or allow visible fugitive dust emissions to remain visible in the atmosphere beyond the property line." At least two other jurisdictions have concluded that absolute prohibitions against visible emissions crossing a property line are unconstitutional. In Ross Neely Exp. v. ADE, the Alabama

Supreme Court held that a state rule prohibiting visible emissions from crossing a property line: "is clearly overbroad, encompassing every situation in which visible fugitive dust emissions move across a lot line, without regard to damage, injury, or inconvenience caused, reasonable attempts at control, etc. This invades the area of protected freedom, severely restricting the use of property, and creases [sic] a situation where discriminatory enforcement is almost inevitable." Ref: 437 So.2d 82, 85 (Ala. 1983); see also CF & U v. CAPCC, 640 P.2d 238 (Colo. App. 1981) (holding that property boundary standard "contravenes fundamental due process rights"). The Chamber respectfully requests this subsection be removed from the draft rule.

**Response #53:**

See the response to comment #52.

**Comment #54:**

A blanket prohibition is unlawful. See, e.g., Ross Neely Express, Inc. v. Alabama Dept Envl. Mgmt., 437 So.2d 82 (Ala. 1983); CF&I Steel Corp. v. Colorado Air Pollution, 640 P.2d 238, 241 (Colo. App. 1981). While some jurisdictions may have some sort of property boundary limitation on the books, that is only because they do not impose blanket prohibitions or have not been challenged. Pima County does not impose a blanket prohibition. Pima County's rule states: "No person shall [allow] visible emissions...beyond the property boundary line within which the emissions become airborne, **without taking reasonable necessary and feasible precautions**..." [Emphasis added.] Under Pima County's rule, so long as reasonably necessary and feasible precautions are taken, emissions can cross the property line. Pima County also provides an exception for wind events, which this proposal does not do. Note, this is an example of a measure where due process for the industry would be beneficial, which Pima County does as well, because there is no test method for this measure.

**Response #54:**

See the response to comment #52.

**Comment #55:**

The direction and reflection of the sun determines opacity, so make clear to use EPA Method 9. Now the rule says "no visible emissions"(?) Many controls have to be implemented at property lines such as: street sweepers and facility entrances.

**Response #55:**

The property line standard in Rule 310 Section 303.1(b) is a presence or absence limitation. To clarify that the Department will not be enforcing on a single puff of dust, the following text, "Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six minute period as determined using EPA Reference Method 22." has been added to Section 303.1(b). The Department has added a new subsection to Section 501.1 in to determine compliance with the property line standard by conducting observations in accordance with EPA Reference Method 22.

**Comment #56:**

APS and SRP suggest that MCAQD extend the affirmative defense option to the opacity limit described in Section 303.1(b), as well as the 20 percent opacity limitation. Also, MCAQD should clarify that a source is not required to submit an excess emissions report or permit deviation notification every time there is a wind event, if fugitive dust emissions exceed 20 percent opacity or if there are visible emissions across the property line. Such a notification would be impossible if the site is inactive during a wind event and no one is on site to make the proper assessment that such a submittal should be made.

**Response #56:**

As noted in the response to comment #52, MCAQD has added the property line standard to the high wind affirmative defense provision. Stationary sources are not required to submit an excess emission report or permit deviation notification for situations that they do not observe. However, the owner and/or operator is responsible for results of the periodic assessment of the routine dust generating operations covered by their permit.

**Comment #57:**

Where will this meteorological wind speed data be obtained from to allow an owner/operator to comply with this provision?

**Response #57:**

Wind data will be obtained through Maricopa County's meteorological network of monitoring stations.

**Comment #58:**

Will MCAQD accept manufacturer provided porosity data - sufficient to meet this requirement?

**Response #58:**

Yes, manufacturer's data is sufficient to determine compliance with this porosity requirement.

**Comment #59:**

Wind fences should stand alone as an alternative or be removed, as it currently adds nothing to the rule.

**Response #59:**

Section 303.2(a)(1)(a)(iv) provides four different options. MCAQD maintains that the use of wind barriers is a legitimate option and is included to enhance the flexibility of sites subject to this Rule.

**Comment #60:**

Is it MCAQD's intention to require additional application of water in the case of any evidence of wind blown dust or can an alternative water based dust suppressant be applied in lieu of water? Does MCAQD intend an instantaneous opacity standard of any observation to trigger additional action or can a physical assessment based upon silt loading be applied?

**Response #60:**

This section only allows the use of water, however section 303.2(1)(b)(i) does allow for the use of other dust suppressant. All opacity determinations for this rule are governed by section 501.1.

**Comment #61:**

Several comments suggest that MCAQD revise this requirement so that it extends the affirmative defense option to the opacity limit described in Section 303.1 - as well as the 20 percent opacity limitation.

**Response #61:**

The Department has revised the section to allow an owner or operator to claim an affirmative defense during high winds for exceedances of the property line standard as well as the 20% opacity standard.

**Comment #62:**

Replace with "Emergency Maintenance Of Utilities". Revise to the following: Section 303.2(b)-The opacity limit described in Section 303.1(a) of this rule shall not apply to emergency activities associated with utilities, including the emergency maintenance of flood control channels and water retention basins."

**Response #62:**

MCAQD cannot add this text as it would constitute a relaxation of the Rule. However, exemptions for emergency activities for essential public utilities are addressed in Section 103.3.

**Comment #63:**

Unpaved parking lot. By what test methods will MCAQD conduct compliance determinations?

**Response #63:**

Section 501.1.b details the methods used to determine opacity for this section and Section 501.2.a details the methods used to determine the silt loading or silt content.

**Comment #64:**

Reference to opacity standard should be stricken as redundant. Opacity covered under Section 303.

**Response #64:**

The reference to opacity is not new and is in the SIP. This reference occurs under Section 304.1 because compliance with the opacity standard is required in conjunction with either the silt content or silt loading standard. The clarity of its application in this instance would be lost if the reference was stricken from the section. A responsible party may be found in violation if the vehicular activity on the lot violates the opacity standard. If the Department is unable to conduct an opacity observation than a site may be found in violation if it fails both the silt content and silt loading tests.

**Comment #65:**

Unpaved Haul/Access Road. By what test methods will MCAQD conduct compliance determinations? Is this paragraph applicable to haul roads around agricultural fields and farm operations (non-livestock)?

**Response #65:**

The test methods for the stabilization requirements of Section 304.2 are listed in Section 501.2.b of Rule 310. If a haul/access road is part of normal farm cultural practices this section does not apply, as exempted under Section 103.1.

**Comment #66:**

Reference to opacity standard should be stricken as redundant. Opacity covered under Section 303.

**Response #66:**

The opacity standard is not new to Rule 310, Section 304.2 - unpaved haul/access road - nor is it new to Rule 310, Section 303 - visible emissions requirements for dust generating operations. It is part of the federally approved rule in the SIP.

**Comment #67:**

Unpaved Haul/Access Road – It doesn't appear that this rule is enforced.

**Response #67:**

It is the intent of the MCAQD to enforce and ensure compliance with all sections of Rule 310. The Department has issued Notices of Violation for this standard

**Comment #68:**

APS and SRP believe it is important that this section account for the possibility of trespassers on unpaved haul and access roads. The limit on vehicle trips and vehicle speeds should be for authorized traffic. It is critical that the owner/operator not be penalized for illegal trespassing that occurs on its site.

**Response #68:**

A blanket exemption for trespassing is not appropriate and relaxes the rule. The department has no way to distinguish the vehicles of trespassers from those driven by legitimate employees. The owner/operator is ultimately responsible for conditions and emissions coming from their properties. The owner/operator will need to investigate why illegal activity is occurring, take steps to minimize the activity and mitigate the effects of that activity. The owner/operator can present information regarding the circumstances leading to a Notice of Violation should the situation escalate to the enforcement stage.

**Comment #69:**

Disturbed Surface Area. Does MCAQD have a definition of "temporarily or permanently inactive"? MCAQD should clearly identify where the primary responsibility resides for obtaining and maintaining compliance with a dust control requirement. A property owner may not have direct supervisory or operational control over the dust generating activity caused by a hired contractor or operator. At what point does MCAQD expect the property owner to exert control over the property once a contractor has left? Are there other environmental programs/regulations where such a hand off occurs?

**Response #69:**

The purpose/intent of Rule 310, Section 304.3 is to describe control measures to stabilize disturbed surface areas on a work site that is under <u>construction when there is no activity occurring at a work site</u> (i.e., when the construction at the work site is temporarily or permanently inactive). Neither owner nor operator nor responsible official can circumvent dust control requirements by claiming it is the sole

responsibility of one particular party to obtain the required dust control permit and comply with applicable requirements. The Department has no ability to intervene in contractual issues.

**Comment #70:**

APS and SRP are concerned that MCAQD proposes to change the name of this section from "Open Area and Vacant Lot" to "Disturbed Surface Area" because the terms have significantly different meanings. MCAQD indicated during stakeholder meetings that this change was a result of a request from stakeholders to add more clarity. Unless more accurate terminology is used to provide additional clarity, MCAQD should revert to the previous terms (i.e., open area and vacant lot) and provide a definition of open area and vacant lot that is consistent with Rules 310, 310.01, and 200.

**Response #70:**

The title of this section and the text describing the standard are inconsistent. The text appropriately describes the surfaces at sources subject to Rule 310 so a revision to the title was necessary. Further, Rule 310 does not apply to non-traditional sources of fugitive dust that are located at sources that do not require any permit under these rules. One such non-traditional source of fugitive dust is open areas and vacant lots. Non-traditional sources of fugitive dust (e.g. open areas and vacant lots) are subject to the standards and/or requirements described in Rule 310.01.

**Comment #71:**

As written, there is confusion between Section 304.3 and Section 305.11, because the stabilization requirements of 304.3 are not consistent with the control measures of 305.11. Section 304.3 allows a source to water the disturbed surface area on which no activity is occurring in order to form a soil crust in accordance with Appendix C. Once a soil crust is form and maintained, the source is in compliance with Section 304.3 of this rule. The control requirements of Section 305.11 require that, after the activity that caused the disturbed surface area is complete for a period of 30 days or longer, the source must implement one of the listed control measures within ten days. Creating a soil crust is not an identified control measure. Comments request that "maintain a soil crust" be added to Section 305.11.c as a control measure.

**Response #71:**

The purpose/intent of Rule 310, Section 304.3 is to describe the stabilization standards that must be met and maintained for disturbed surface areas on a work site <u>when there is no activity occurring at a work site.</u> The purpose/intent of Rule 310, Section 305.11 is to describe specific controls measures to control fugitive dust on a work site before, during, and after conducting operations/activities that disturb the work site's surface areas. Several of these specific control measures will result in a soil crust that will meet the stabilization requirements described in Section 304.3. The MCAQD does not believe the sections are inconsistent.

**Comment #72:**

It is not clear these sections would apply to projects on our ROW. If yes, then it would [be] difficult to maintain a soil crust or maintain a flat vegetative cover or standing vegetative cover. The ROW is to be

kept free of deep rooted vegetation and is periodically driven over by motor vehicles for maintenance activities. It would also be difficult to restrict vehicle access to the area.

**Response #72:**

Rule 310 only applies to your permitted site, usually the pumping station. The rights-of-way along the pipelines are not permitted and thus are addressed in Rule 310.01.

**Comment #73:**

The new phrase "visibly distinguishable stabilization characteristics" is redundant and vague, will lead to inconsistent enforcement, and should be stricken. Change from "visible crust" to "soil crust" is vague and should be stricken.

**Response #73:**

The stabilization standards and corresponding test methods apply to specific types of surfaces and do not provide meaningful information when applied to other types of surfaces. For example, performing a test to verify that sufficient vegetation is present always indicates failure when the surface lacks vegetation. Rule 310, Section 304.3 explains that the owner and/or operator must test separately each type of surface that can be visibly distinguished. These surfaces may be characterized by different soils, the presence or absence of vegetation, gravel, or control method. The owner/operator is required to verify compliance with a stabilization standard appropriate for each identified surface. The phrase "visibly distinguishable" is being proposed so that the owner and/or operator does not have to conduct more tests than necessary (e.g. perform a standing vegetation test when the application of water to maintain a soil crust is the chosen control method). The phrase "visible crust" is proposed to be changed to "soil crust" to match proposed changes in Appendix C.

**Comment #74:**

Current rule imposes different requirements for hauling offsite, hauling within a site, and crossing a public road. See tables 13 and 15. No change should be made. This proposal creates confusion as to applicability of Section 305.1 vs. 305.2 vs. 305.3. Subsection (c) is redundant and is covered under trackout provisions. Subsection (a)(2) is infeasible. It is impossible to load haul trucks so that load is completely level or lower in the center than it is on the sides. Loading the trucks in this manner will require the bulk material in haul truck cargo container area to be leveled before the truck moves. Such a requirement could be costly and could require a worker within the cargo box with a shovel or rake to move the material around to meet this requirement. Such activity could be hazardous. This section should be revised as follows: "Load all haul trucks such that at no time shall the highest point of the bulk material be higher than ~~the highest point at which the bulk material contacts the sides, front, and back of~~ a top of the cargo container area;"

**Response #74:**

The purpose/intent of Rule 310, Section 305.1 is to combine the provisions of existing Sections 308.1 and 308.2 with existing Tables 13-15. To minimize confusion the Department revised the title to proposed Section 305.1 from "Off-Site Hauling" to "Bulk Material Hauling Off-Site Onto Paved Areas

Accessible To The Public". This title structure now parallels the titles of Sections 305.2 and 305.3 and matches the original title the existing Section 308.1. All the required control measures under proposed Section 305.1 through 305.3 match the existing rule except the new requirement in Sections 305.1(a)(2) and 305.3(b) addressing the height of the load to better prevent spillage from the top of the hauling vehicle. MCAQD concurs the with stakeholders' concerns regarding flat loads and will revise the requirement to read, "Load all haul trucks such that at no time shall the highest point of the bulk material be higher than the top of the sides, front, and back of a cargo container area;"

**Comment #75:**

Does this rule apply to non-traditional sources of fugitive dust? If this rule does apply to livestock owners, who are hauling or transporting feed for livestock, they cannot perform control measures b, and c. It is not feasible to apply water to feed, or cover feed with tarps when dispensing to livestock.

**Response #75:**

Rule 310, Section 103.2 states that non-traditional sources of fugitive dust are not subject to the provisions of Rule 310, including Section 305.2 of Rule 310. Non-traditional sources of fugitive dust does include livestock activities as part of its definition, therefore livestock activities are exempt from Rule 310. It should be noted that livestock activities and other non-traditional sources of fugitive dust are subject to the applicable provisions of Rule 310.01.

**Comment #76:**

Rule 310, Section 305.3(b) is infeasible. Section 305.3(d) is redundant and should be removed to prevent confusion and possible duplicative enforcement.

**Response #76:**

See response to comment #74. Rule 310, Section 305.3(b) has been revised.

**Comment #77:**

What does the phrase "as necessary" mean? As necessary to comply with opacity standard? If so, this section is not necessary, because opacity is already a rule requirement.

**Response #77:**

Rule 310, Section 305.4 describes the appropriate control measure. "As necessary" is included here to recognize situations where moisture is already present, such as rainfall. Opacity and the new property line standard simply provide a method of determining if sufficient moisture is present.

**Comment #78:**

Wind fences should stand alone as an alternative or be removed, as it currently adds nothing to the rule.

**Response #78:**

A few permittees have chosen to the wind fence combination under Rule 310, Section 305.5(b). The MCAQD will continue to provide permittees with that flexibility in meeting this control measure.

**Comment #79:**

Insert "similar" before "material".

**Response #79:**

The word "similar" does not add any clarity to the existing section.

**Comment #80:**

Definitions must be added. Storage areas should be stricken as covered under storage piles. Current rule for parking lots allows water to be applied to meet silt loading requirements. Proposal to require visible moisture is wasteful of limited resource.

**Response #80:**

Storage areas contain supplies and equipment to support the permitted operation and are not covered by the open storage pile provisions. A description for storage can be found in a dictionary. The proposed control measures address vehicle use and parking on sites that require a permit and match Clark County's Section 94-Permitting And Dust Control For Construction Activities. If an owner/operator feels the application of water is wasteful, then this section lists several other options that can be used instead.

**Comment #81:**

APS and SRP believe it is important that this section account for the possibility of trespassers on unpaved staging areas, parking areas, material storage areas, and access routes. The limit on vehicle trips and vehicle speeds should be for authorized traffic only and the rule should clearly state this. It is critical that the owner/operator not be penalized for illegal trespassing occurring on their site.

**Response #81:**

A blanket exemption for trespassing is not appropriate and relaxes the rule. The MCAQD has no way to distinguish the vehicles of trespassers from those driven by legitimate employees. The owner/operator is ultimately responsible for conditions and emissions coming from their properties. The owner/operator will need to investigate why illegal activity is occurring, take steps to minimize the activity and mitigate the effects of that activity. The owner/operator can present information regarding the circumstances leading to a Notice of Violation should the situation escalate to the enforcement stage.

**Comment #82:**

Several comments are concerned about fugitive dust regulations covered by rules other than Rule 310. For example, Rule 312 - Abrasive Blasting regulates particulate matter emission from abrasive blasting and includes an opacity limit with more stringent control measures than Rule 310. A source subject to Rule 312 should not have to meet the opacity conditions and control measures set forth in Rule 310. However, since blasting is included under the definition of earthmoving operation in Rule 310, the source would be regulated under Rule 310 in addition to Rule 312. This could result in multiple violations for the same non-compliant action. APS and SRP recommend that the MCAQD include a provision exempting from Rule 310 those activities that are subject to fugitive dust requirements under other rules.

**Response #82:**

The "blasting operations" referred to in Rule 310 apply to explosive blasting practices, such as rock removal or structural concrete removal. Rule 310 does not apply to abrasive blasting operations that are subject to more stringent requirement under Rule 312. Rule 310, Section 103.6 clarifies that the abrasive blasting process is covered by Rule 312. However, vehicles hauling the equipment into the site or re-stabilizing any soil surfaces surrounding the structure being blasted will be subject to Rule 310.

**Comment #83:**

There is no definition for "demolition activities." This term should be defined.

**Response #83:**

Demolition means the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations. This is the same definition that the MCAQD uses in its asbestos regulations.

**Comment #84:**

Wind fences and restricting vehicle access should stand alone as an alternative or be removed, as it currently adds nothing to the rule. Subsection (b)(1) should clarify that water need only be applied to comply with opacity standard. As crafted, it could be interpreted to require application of water at all times. Current rule allows 8 months before permanent stabilization and allows use of water. We have not seen an analysis of emission reductions associated with the changes. Trespass by definition cannot be prevented. Reasonable precautions can be taken and so Section 305.11(c)(4) should be re-written as follows: "Take reasonable precautions to prevent access such as fences, ditches, vegetation, berms, or other barrier approved by the Control Officer." MAG did not support any changes to current stabilization measures and none are warranted. Home Builders estimate this measure will cost $2,000/unit.

**Response #84:**

During the activity that disturbs a surface, a wind fence does not minimize the opacity generated by the activity. A wind fence only shields an area three times the height of the fence from a perpendicular wind and does not reduce the amount of dust generated by the activity. In Section 305.11(b) when dust generating activity is occurring, a wind fence may provide a useful, supplemental control when operating near sensitive receptors. Removing this option from the rule only limits the flexibility of permit holders to meet the control measure requirements. The MCAQD has revised Section 305.11(b)(1) as follows: “Apply water or other suitable dust suppressant, as necessary.” This change will make this section consistent with the over subsections in Section 305 that allow for the application of water while recognizing that continuous application of water may not be necessary such as following a rainstorm. As pointed out in comment #77, the opacity standard is already a rule requirement. The MCAQD has not changed the language of Section 305.11(c)(4) with regards to barriers to prevent trespass. The EPA has long held that the use of the term “reasonable precautions” is vague and must be replaced with specific language in order to be considered RACM. Unstabilized

disturbed areas can contribute to large $PM_{10}$ emissions through vehicle travel on such surfaces and through windblown dust generated from such surfaces. On May 23, 2007, MAG recommended adding barriers to the stabilization requirements as part of the Five Percent Plan. These new stabilization methods are necessary in order to achieve the required $PM_{10}$ emission reductions of the Five Percent Plan. The new requirements are in place in Clark County.

**Comment #85:**

As currently worded, this requirement does not make sense. It appears that MCAQD is trying to cover two separate incidents: full completion of the dust generating operation and "temporary pauses" (an undefined term) in dust generating operations that extend beyond 30 days. These are two very different situations and should be treated separately within the rule. The types of control measures that should be allowed when stabilizing an area upon completion are different from those control measures that would be required during a "temporary pause", due to the extent of time that the area needs to remain controlled.

**Response #85:**

The owner/operator must address the stabilization requirements under both situations described in Rule 310, Section 305.11(c). The MCAQD believes that the section offers sufficient flexibility by providing five different options to cover the range of circumstances that fall under the two situations.

**Comment #86:**

Several comments also request that the timeframe to implement the control measure be extended to 40 days due to time delays resulting from specific city ordinances and city approval for the control measures listed.

**Response #86:**

The total time allowed under Rule 310, Section 305.11(c) is actually 40 days, when the 30 days after finishing a dust generating operation is combined with the ten days allowed to implement the listed control measures.

**Comment #87:**

In addition, as written, confusion exists between Section 304.3 and Section 305.11, because the stabilization requirements of 304.3 are not consistent with the control measures of 305.11. Section 304.3 allows a source to water the disturbed surface area on which no activity is occurring, in order to form a soil crust in accordance with Appendix C. Once a soil crust is formed and maintained, the source is in compliance with Section 304.3 of this rule. The control requirements of Section 305.1 1 require that, after the activity that caused the disturbed surface area is complete for a period of 30 days or longer, the source must implement one of the listed control measures within ten days. Creating a soil crust is not an identified control measure listed. APS and SRP request that "maintain a soil crust" be added to Section 305.11(c) as a control measure.

**Response #87**:

See the response to comment #71.

**Comment #88:**

It is not clear if these sections would apply to projects on our ROW. If yes, then it would [be] difficult to maintain a soil crust or maintain a flat vegetative cover or standing vegetative cover requirements. The ROW is to be kept free of deep rooted vegetation and is periodically driven over by motor vehicles for maintenance activities. It would also be difficult to restrict vehicle access to the area.

**Response #88:**

Dust generating operations regarding rights–of-way (ROW) are subject to Rule 310.01, not 310, unless the site in question already has a General, Non-Title V, or Title V permit, in which case Section 305.12 of Rule 310 applies.

**Comment #89:**

For fairness, rule should require easement holders to identify in their control plans the number of vehicles trips and provide a description of how speeds will be limited.

**Response #89:**

Right-of-ways and easements commonly provide access to operate and maintain infrastructure across someone else's property. These forms of access are not manned. The MCAQD notes the comment and will further research right-of-ways and easements, if they are present on permitted sites that are required to submit a dust control plan, and address this issue the next time Rule 310 is opened. Currently, Rule 310, Section 305.12 applies to sources that have a Title V permit, a Non-Title V permit, and/or a General permit. If such sources engage in dust generating operations, then such sources must submit a Dust Control Plan. If such sources use the easements and right-of-way as a haul or access road onsite, then the requirements that apply to onsite haul/access roads are more stringent and will apply. At a minimum, the Dust Control Plan must meet the Dust Control Plan requirements in Rule 310, Section 402.

**Comment #90:**

All track out should be totally prevented and if it occurs, you have failed to prevent it. This is the only way to satisfy provisions of the 5% plan.

**Response #90:**

The purpose of this Rule 310, Section 306 is to "prevent and control" trackout, not eliminate it. While it is not feasible to totally eliminate trackout for all dust generating activities, trackout builds up over time, and needs to be cleaned up when it does occur. The MCAQD believes that the presence of trackout is an indication that maintenance or modification of the trackout control device is necessary. In this Section 306, the MCAQD has reduced the length of trackout to be consistent with a provision adopted in 2005 in Rule 316 originally adopted by the South Coast Air Quality Management District. Re-entrained road dust is one of the largest sources of $PM_{10}$ in the region. This measure will contribute to a reduction in $PM_{10}$ emissions as outlined in the 5% plan.

**Comment #91:**

Provision 306.1(a) should be limited to exits designated in a Dust Control Plan.

**Response #91:**

This comment would make the rule less stringent. The owner/operator is responsible for ensuring contractors/employees only use designated exits.

**Comment #92:**

Trackout Control Device. Why was "100 cubic yards" selected as a threshold of applicability?

**Response #92:**

The 100 cubic yards is equal to the load capacity of 10 three-axle truck trips hauling material off site e.g. 100 cubic yards of material. In 2004 EPA states in the Technical Support Document (TSD) for their approval of San Joaquin Valley's 2003 PM-10 Plan, that sites with little hauling activity have less propensity for trackout and believe that the threshold is acceptable as BACM in light of the requirements to mitigate trackout should it occur.

**Comment #93:**

MCAQD needs to clarify the scope of this requirement. This can be accomplished by rewording this section as follows: "For those work sites identified in Section 306.1.a, prevent trackout, carryout, spillage, and/or erosion by implementing one of the following control measures:"

**Response #93:**

The requirement to control and prevent trackout is required of all sites regardless of whether section 306.1a is applicable to a site. For those sites that are less than two acres or where less than 100 cubic yards of material are hauled off-site, the control measures of section 306.1b still apply.

**Comment #94:**

Large construction sites need more stringent trackout controls with a wheel wash or grizzly in addition to a gravel pad at sites 5 acres or larger. This should be mandatory and if trackout occurs, then the measure selected is not effective and should be fixed.

**Response #94:**

This suggestion would result in a substantive change to the Notice of Proposed Rulemaking that the MCAQD is unable to consider at this time. The MCAQD believes that the presence of trackout is an indication that maintenance or modification of the trackout control device is necessary. The rule already requires that contingency measures be implemented when the primary measure proves ineffective.

**Comment #95:**

Provisions in Rule 310, Section 306.1(b) are unnecessary. Definition of trackout control device identifies options, which also includes grizzlies. Additionally, please provide documentation concerning the emission reductions associated with paving an area 100 feet in length and 20 feet in width to reduce trackout. A reference to other rules without this supporting documentation is unhelpful and does not demonstrate how the proposal will reduce emissions, which is a required element of the 5% plan.

**Response #95:**

A definition is not a standard. Further, Section 306.1(b) contains other specifications not found in the definition of trackout control device. The control measure option of paving an area 100 feet in length and 20 feet in width to reduce trackout is not new and can be found in Table 17 in the current version of Rule 310. No additional reductions were assumed for that control option in the 5% plan.

**Comment #96:**

Clean Up Of Trackout. Does MCAQD have an objective measure of sufficient trackout cleanliness?

**Response #96:**

In general, trackout is considered "cleaned-up" or "removed" when bulk materials are no longer adhering to nor agglomerating on the surface of a paved area accessible to the public. The inspector makes this determination by visually inspecting the paved surface.

**Comment #97:**

This requirement also needs to be enforced across all air permits (Not just 310 & 316), including Non-Title V and Title V permit holders (their permits state they must follow Rule 310 as well), as well as Rule 310.01 sources, if the County is going to successfully achieve the PM-10 reductions than all sources of track-out throughout the County need to be held to the same standard. Construction sites might agree to this standard during hauling operations but at all other times the standard should remain at 50 feet as this is already pretty stringent.

**Response #97:**

Rules 310, 310.01 and 316 all contain the 25 foot cumulative limit for trackout. MCAQD maintains that practically all sources of trackout are subject to one of these three rules. Non-Title V and Title V permit holders are not exempted from these rules if they contain sources at their facilities that are subject to these rules (i.e., unpaved parking lot, unpaved alley, sand and gravel operations, etc.). Additionally it should be noted that the goal of the control measures in the above three rules is to reduce emissions from re-entrained road dust.

**Comment #98:**

Trackout requirements should remain 50 feet. MAG estimated costs originally at $2,500,000/ton emissions reduced. Home Builders estimates that this measure will increase per unit costs approaching $5,000. References to curbs, gutters, and sidewalks should be removed as inconsistent with the definition of area accessible to the public. "Immediately" should be defined and tied to knowledge of individual who can take action to address. Subsection (b) is unnecessary, unclear, and could lead to duplicative enforcement.

**Response #98:**

MAG's original estimates overstated the costs associated with this measure as their consultant did not assume that any maintenance or modification would be performed on the trackout control device and site setup. The MCAQD believes that the presence of trackout is an indication that maintenance or modification of the trackout control device is necessary. Appropriate attention directed to site trackout control will minimize the amount of cleanup necessary. The Dust Control Coordinators now required

under Senate Bill 1552 and Rule 310 will be able to provide more effective site dust control. The MCAQD believes the $5000/unit still overstates the cost as that number continues to assume 8 hours of manual clean up per day, when, in fact, there is no rule requirement to station someone full time as a trackout cleanup person. Curbs, gutters, and sidewalks are integral parts of paved areas accessible to the public. Further, these areas are frequently overlooked during cleanup efforts, and continue to result in re-entrainment of dust from the wake effects of errant drivers. The problem of a grace period described above for "immediately" will exist with what ever time period is specified. In the Department's experience, trackout builds up over time and the individual who can take action has a duty to monitor it and should be aware cleanup will soon be needed. To condition cleanup based on knowledge removes an incentive to monitor trackout and would make the rule less stringent. Section (b) is existing rule text moved from Table 16 as the MCAQD has attempted to streamline the rule improving clarity. The MCAQD is required to list appropriate control measures so that industry will know what types of control measures implement the technology requirements contained in the rule in case a permittee chooses to apply for alternative equivalent in effect to the existing measures described in the rule.

**Comment #99:**

Manual sweeping to clean up track out is a safety hazard. Recommend that "edges and curbs" be removed from the text in this section.

**Response #99:**

Manually sweeping-up of trackout is one of two options for removing trackout and has been selected in dust control plans. Trackout must be removed from paved areas accessible to the public, which includes curbs, gutters, and sidewalks. See the response to comment #98 regarding curbs, gutters and sidewalks.

**Comment #100:**

The proposed revisions include a 50 percent reduction in the amount of trackout allowed at a site. As such, the MCAQD should provide a more reasonable amount of time to clean up trackout, carry-out, or spillage. In some cases, it is impossible to clean up an area immediately after the cumulative trackout extends more than 25 linear feet due to safety issues, particularly if the trackout is on roads accessible to the public. It may not be possible to divert traffic while the trackout is being cleaned up. If traffic cannot be diverted, employees who are trying to clean up are at significant risk. Furthermore, it was communicated in stakeholder meetings that the enforcement of the current trackout requirement is dependent on the inspector. Some inspectors provide a reasonable amount of time for cleanup, and some provide no leeway based on the requirement that it be cleaned up "immediately." In order to ensure fair and equitable treatment of all sources, MCAQD should provide a specific amount of time in the rule for cleanup that is more reasonable than "immediately."

**Response #100:**

The MCAQD trains its inspectors on trackout enforcement to ensure fair and equitable treatment. In the MCAQD's experience, trackout builds up over time and the individual who can take action has a duty to monitor it and should be aware cleanup will soon be needed. The MCAQD inspectors place more importance on taking action to initiate cleanup of trackout than they do on counting minutes. The MCAQD does not believe the differences between inspectors are as significant as portrayed based on the reports prepared when Notices of Violations are referred for escalated enforcement. If a permittee believes that they have been treated unfairly, they may contact a supervisor or other department management.

**Comment #101:**

Suggest adding "by wind" after "dislodged". Soil maintained in sufficiently damp condition to control dust may have loose grains of soil dislodged by vehicle movement and yet the material moved would not be sufficiently friable to generate fugitive dust. Another comment suggested the provision is redundant and out of place given other rule revisions and therefore could lead to duplicative enforcement. Control measures are defined in Section 305. This could be interpreted to require the continuous application of water even if not necessary to meet opacity, stabilization, or control measure requirements. As a result, it is both vague and overboard.

**Response #101:**

"Because Maricopa County is a serious area nonattainment area for PM10, the Maricopa County Environmental Services Department (MCESD) helped develop a PM10 serious area nonattainment plan for the Arizona State Implementation Plan (SIP). The EPA approved the plan in April 2002 contingent on the completion of three commitments by Maricopa County (See 65 Fed. Reg. 19964 (2000) and 67 Fed. Reg. 48717 (2002)). To complete commitment #2, Maricopa County was to "research, develop, and incorporate additional requirements for dust suppression practices/equipment for construction activities into Dust Control Plans and/or Rule 310" (65 Fed. Reg. 19964, 19980). The intent of this section, adopted by the Board in 2004, is to ensure that a water application system is present on site when water is the chosen control measure. This section has not been revised and does not require continuous operation of a water system. It was simply re-numbered in the re-organization of the rule. The comment's suggestion substantively changes this section. The Department will make note of the comment and consider the request the next time Rule 310 is re-opened.

**Comment 102:**

Suggest including "Dust Control permit-Block permit" in earlier listing of air quality permits issued by the MCAQD. Suggest signage requirements be included with all permit requirements regardless of disturbed area size.

**Response #102:**

Block permits are a subset of the Dust Control permits described in Rule 200. The threshold for signage has not been changed in this proposed revision and would represent a substantive change if

implemented at the time. The MCAQD notes the comment and will consider the change next time Rule 310 is re-opened.

**Comment #103:**

First, for fairness, block permit holders should be held to same requirement. After all, the MCAQD has stated that it has difficulty identifying block permit holder permit violations. By imposing sign requirement, county could determine whether a block permit holder is responsible for any violation associated with open trenches. Second, original language concerning public readability is superior to revised language. It may be impossible for sites that have limited public access points to install a sign that the public can view and read "at all times". This revision is unnecessary.

**Response #103:**

The routine activities allowed to be covered under a Block permit do not last very long and in many instances are completed in less than one day. Signage for Block permit holders would be gone once their work was completed. The specific information required to be on the project information sign matches requirements in Clark County's Construction Activities Dust Control Handbook adopted on March 18, 2003.

**Comment #104:**

Increase frequency of dust control training for Dust Coordinator to annually. It is only required every 3 years in the block permits. Also let Dust coordinators who complete the training, train employees of the same permit holder.

**Response #104:**

Requirements for dust control training classes are being added to Rule 310 to comply with Senate Bill 1552. MCAQD will consider increasing the training frequency dust control coordinators after we gain experience through implementation of the training program this year. We will have a better sense of the time, number and workload involved. SB1552 allows the Control Officer to approve training developed and provided by a third party for both basic and comprehensive training. If a dust control coordinator passes the MCAQD Train the Trainer course and either used the curriculum MCAQD supplies or submits their own for approval, then the coordinator may train employees of the same permit holder.

**Comment #105:**

These provisions need to be completely consistent with SB 1552. Latest draft does not include A.R.S. §49-474.05(H).

**Response #105:**

A.R.S. §49-474.05(H) reads: "Subsections C and D do not apply when on-site dust generating operations are conducted by a permittee who is required to obtain a single permit for multiple non-contiguous sites that is issued by a Control Officer and that requires control of PM10 emissions." Rule 310 has been written to be consistent with Senate Bill 1552.

**Comment #106:**

Re-look at the number of individuals that are required to take the Certified Dust Coordinator training. Limit the certification to one class. Provide an internet training program. Add Method 9 certification or training to the training curricula.

**Response #106:**

Requirements for dust control training classes are being added to Rule 310 to comply with Senate Bill 1552. The Basic Dust Control Training Class can be conducted or approved by the Control Officer. The Comprehensive Dust Control Training Class can be conducted or approved by the Control Officer. The training classes will include implementation of control measures and discussion of what opacity is. However, formal opacity certification training will not be part of the training class. Opacity certification can only be done by the EPA-approved or the ADEQ-approved trainers. The Control Officer is requiring that an individual certified to conduct comprehensive training must show proof of opacity certification before the Control Officer will approve the third party trainer.

**Comment #107:**

This section is a duplicate requirement to Section 309.2(a) and should be removed.

**Response #107:**

The requirement in this section is identical to Section 309.2(a) but is put in to make clear the required training regiment (Section 309.2(a)) and also the requirements for a Dust Control Coordinator (Section 310.4). Rule 310 has been written to be consistent with Senate Bill 1552.

**<u>Rule 310 Section 400</u>**

**Comment #108:**

MCAQD should clearly identify where the primary responsibility resides for obtaining and maintaining compliance with a dust control permit. A property owner may not have direct supervisory or operational control over the dust generating activity caused by a hired contractor or operator. More succinctly, the operator or contractor would be the proximate cause of any dust emissions and thusly is responsible for dust control efforts. Is MCAQD intending for property owners to obtain the relevant dust control permits before any dust generating activity caused by a contractor or operator hired by the property owner? Or alternatively, does MCAQD intend the contractor or operator of the dust generating activity to possess the primary responsibility to obtain the dust control permit?

**Response #108:**

See the response to comment #4.

**Comment #109:**

Provision in Section 401.1 as crafted raises incorporation by reference concerns because the Dust Control Permit Application is not included in the rule. Rather than add more to the rule, we recommend that you simply note that application shall include applicant information, project information, and a Dust Control Plan.

**Response #109:**

Section 401.1 has been revised to read as follows: "To apply for a Dust Control permit, an applicant shall complete a permit application in the manner and form prescribed by the Control Officer. At a minimum, such application shall contain the following information." This revision will be documented in the Notice of Final Rulemaking.

**Comment #110:**

If no activities are occurring, what permit conditions would apply?

**Response #110:**

The conditions in the permit will be enforced once the first onsite activity commences. At other periods of inactivity, the stabilization requirements will apply. Note that Section 401.2(a) requires compliance with all provisions of the regulations.

**Comment #111:**

The wording of this section creates uncertainty regarding what conditions are required to be included in an approvable Dust Control Plan. As it is written, it is possible to meet Sections 401.2(a), (b), (c), and (d) but still not receive approval for a Dust Control Plan. APS and SRP request that the language "but not limited to" be removed since it implies that there are requirements other than those in the rule.

**Response #111:**

There are requirements other than those in Rule 310 that may become part-of a Dust Control permit such as compliance with the asbestos NESHAPS. This reality does not necessarily mean that a Dust Control Plan will be disapproved.

**Comment #112:**

Permittee cannot ensure all persons, including trespassers and other unrelated third parties, comply with the permit.

**Response #112:**

Rule 310 contains specific requirements that must be followed to prevent fugitive dust emissions. The department has no way to distinguish the vehicles of trespassers from those driven by legitimate employees. The owner/operator is ultimately responsible for conditions and emissions coming from their properties. The owner/operator will need to investigate why illegal activity is occurring, take steps to minimize the activity and mitigate the effects of that activity. The owner/operator can present information regarding the circumstances leading to a Notice of Violation should the situation escalate to the enforcement stage.

**Comment #113:**

Supplying Dust Control Plan and permit to all contractors and subcontractors, regardless of whether they conduct dust generating operations, is infeasible. A better approach would be for the subcontractor registration program to require that subcontractors be familiar with the dust control plans on the sites at which they operate.

**Response #113:**

Rule 310 contains specific requirements that must be followed to prevent fugitive dust emissions. A permit holder is responsible for persons on-site who violate the rule. Since dust control plans are site-specific, the permit holder needs to ensure that all individuals involved in dust generating operations are aware of dust control plan specifics for that site. The subcontractor registration program, delineated in Rule 200, has been written to be consistent with Senate Bill 1552.

**Comment #114:**

Provision is not consistent with SB 1552.

**Response #114:**

The training requirements in Rule 310 have been written to be consistent with Senate Bill 1552.

**Comment #115:**

What is the purpose of this provision 401.3? It seems like it has the potential to add duplicative penalties.

**Response #115:**

The intent of Rule 310, Section 401.3 is to describe that the signature of the permittee is required on a Dust Control permit application and that such signature represents the permittee's agreement to accept responsibility for meeting the conditions of the permit. A permittee's signature and such agreement is required for all permits that the MCAQD issues.

**Comment #116:**

Some sites do not have linear dimensions.

**Response #116:**

The majority of sites do have linear dimensions. This requirement is designed to measure the surface area that will be disturbed and not the volume of dirt moved. The MCAQD accepts appropriate calculations of surface area when sites boundaries are not straight lines. The MCAQD uses a project site drawing to delineate boundaries for a reference. The project site drawing should be as accurate as possible.

**Comment #117:**

In Section 402.3(c)(3) reference should be to Sections 303 and 304 - not Section 301.

**Response #117:**

A control measure that is not listed in Rule 310, Section 305 but is chosen for/in the Dust Control Plan must meet the general requirements for dust generating operations and have an effect similar the BACM/MSM control measures specifically listed in the rule.

**Comment #118:**

Provision in Section 402.3(c)(4) is redundant. Either remove here or remove reference in other locations in the rule.

**Response #118:**

Earlier provisions provided control measure requirements. This requirement lists the contents of an application and dust control plan. The repetition here adds clarity.

**Comment #119:**

"And/or" should be deleted from Section 402.3(e) so that phrase reads "where unpaved and/or access points…"

**Response #119:**

The MCAQD inadvertently left out the word roads. Section 402.3(e) will read "where unpaved roads and/or access points…"

**Comment #120:**

Provision in Section 402.4 is redundant, because Dust Control Plan should reflect rule's requirements. As drafted, this could lead to duplicative enforcement.

**Response #120:**

A Dust Control Plan is a legally binding document just as is the Dust Control permit. As such, the procedures to approve or disapprove a Dust Control Plan are the same as the procedures to approve or disapprove a Dust Control permit application. There is no redundancy nor will it lead to duplicative enforcement.

**Comment #121:**

Does the MCAQD have a listing of primary control measures or secondary control measures?

**Response #121:**

The Dust Control permit application identifies primary control measures and contingency control measures.

**Comment #122:**

Rule 310, Section 402.6 is a duplicate requirement to Section 402.3(c)(2) and should be removed.

**Response #122:**

Rule 310, Section 402.3 describes the elements required to be in a Dust Control Plan and Rule 310, Section 402.6 describes the requirements of the Dust Control Plan. To avoid overlap, the Department modified the two sections by retaining the first sentence in Section 402.3(c)(2) and retaining the rest of the paragraph in Section 402.6.

**Comment #123:**

Suggest language be included in Rule 310, Section 403.1 to ensure that the written notice will include the standard exceeded and to what extent.

**Response #123:**

This comment confuses a notice to revise the dust control plan with a Notice of Violation (NOV). The section already requires that the Control Officer explain why the Dust Control Plan needs to be revised. For NOVs the Dust Compliance Division follows the MCAQD's policies and procedures to document air quality violations and to notify alleged violators to ensure that all compliance actions are addressed in a timely and appropriate manner.

**Comment #124:**

During the process of Dust Control Plan revision, will the previous Dust Control Plan be the operant plan until the revised plan is in place, or will the permittee be expected to abide by potential revisions until the plan is approved.

**Response #124:**

It is important to note that the permit holder must still comply with all the provisions of Rule 310 even if a previous or existing Dust Control Plan is deficient. The permittee will be allowed to operate under the proposed revisions provided they stay in compliance with the standards in the rule until the Control Office approves the revision. The previous approved Dust Control Plan remains in effect until the revisions are approved by the MCAQD.

**Comment #125:**

The owner/operator should apply new dust control methods if the Dust Control Plan has been followed, yet fugitive dust emissions still exceed the standards of the rule. It may be difficult to submit a revised plan within three working days of receipt of a written notice. The time period should be increased to within five or seven working days. The owner/operator should implement the inspector's recommendations, but be allowed additional time for a written response.

**Response #125:**

The MCAQD believes three working days is an adequate amount of time to complete revisions of a Dust Control Plan. If additional time is needed for special circumstances, Rule 310, Section 403.1(b) allows the Control Officer to extend the time frame for good cause.

**Comment #126:**

Does the MCAQD expect the permittee to file Dust Control Plan revisions for decreases in acreages? The header of this paragraph suggests this is an optional requirement.

**Response #126:**

A permittee is allowed to make changes to an approved Dust Control permit and Dust Control Plan. A permittee might have to change a Dust Control Plan if plans change such that more acreage will be disturbed than included in the original application and Dust Control Plan. A permittee may also choose to adjust project acreage to indicate completion of a project phase. In order to change a Dust Control permit and/or Dust Control Plan for any other reason, the MCAQD accepts the following permit modification forms: permit acreage change request, permit cancellation request, permit name change, permit plan change, and parcel sale notification.

**Comment #127:**

Revision should not be necessary if Dust Control Plan requirements are not changed due to the change in acreage.

**Response #127:**

While a revision is optional for a decrease in acreage, a revision must be filed for an increase in acreage identifying what will happen on the additional acreage. A Dust Control Plan is specific to the layout and identified dust generating activities on a site. A change of acreage can trigger many

different requirements on an existing dust control plan (additional control measures, etc.); therefore, the MCAQD believes it is necessary to revise a Dust Control Plan whenever an acreage change occurs.

**Comment #128:**

For what kind of permit holder "change" does the MCAQD expect the permittee to file a Dust Control Plan revision? The header of this paragraph suggests this is an optional requirement.

**Response #128:**

Rule 310, Section 403.2(b) refers to a change in the owner of the permit. Such a change is substantial and requires a revision to the Dust Control Plan. Revisions of this nature are not optional. The language in the section is meant to convey that the reason for the revision is an action (change in permit ownership) initiated by the permittee.

**Comment #129:**

The changes in administrative contact information and responsibility require a revision in the Dust Control Plan. The header of this paragraph suggests such revisions are optional and at the request of the permit holder. Will such a review be subject to generally practiced MCAQD administrative review timelines?

**Response #129:**

Revisions of the nature as listed in Rule 310, Section 403.2(c) are not optional. The language in the section is meant to convey that the reason for the revision is an action (administrative change) initiated by the permittee. Rule 310, Section 405 sets the MCAQD timelines for review and approval of revised plans.

**Comment #130:**

Multiple parties are responsible for dust generating operations at various times. The phrase "and responsible for the dust generating operation change" should be deleted.

**Response #130:**

Rule 310, Section 403.2(c) remains unchanged. As described in the response to comment #4 regarding whose responsibility it is to obtain a Dust Control Permit, there is shared responsibility by the owner, operator, or responsible official in ensuring that dust generating operations comply with all rule and permit requirements. Neither owner nor operator nor responsible official can circumvent dust control requirements by claiming it is the sole responsibility of one particular party to comply. The Department has no ability to intervene in contractual issues. The owner/operator remains responsible for providing accurate information regarding the responsible official on a work site.

**Comment #131:**

Suggest that "materially" be inserted before "change" in Rule 310, Section 403.2(d).

**Response #131:**

The term "materially" would not add to or clarify the meaning; it would simply lead to more ambiguity. If activities on a work site change and the changes affect the Dust Control permit or Dust Control Plan, then the permittee must notify the Control Officer. For example, if a permittee hits a

substrate that requires blasting but has not included blasting in the original application, the permittee must notify the MCAQD and file a revision to the Dust Control Plan identifying control measures for blasting.

**Comment #132:**

Suggest MCAQD add "upon written notice by MCAQD" after "respectively" in Rule 310, Section 403.3(b).

**Response #132:**

Since Arizona State Statutes require the MCAQD to publicize rule revisions, such requirement is not included in Maricopa County Air Pollution Control Regulations.

**Comment #133:**

Rule 310, Section 404 discriminates against private entities. All entities who meet the standards should be able to obtain a block permit.

**Response #133:**

Rule 310, Section 404-Dust Control Permit-Block Permit Requirements does not discriminate against private entities. Both public and private utilities that meet the requirements may apply for a block permit. Rule 310, Section 404.4 addresses private entities under contract to Block Permit holders.

**Comment #134:**

Suggest that "Dust Control permit-Block permit" be included and defined earlier in these rules.

**Response #134:**

Given the multiple aspects that define a block permit, a single definition in Rule 310, Section 200 would be awkward.

**Comment #135:**

El Paso may replace a valve, a ten foot pipeline section, or other section of pipe. It is not clear as to the definition of "new construction" since a Block Permit may include maintenance, expansion and extension of utilities under 404.1(b) and 404.1(c)? For routine operation and maintenance projects which may include installing sections of new pipe to an existing pipeline, it would be burdensome to obtain an individual Dust Control permit for each project. Please consider removing the sentence "New construction shall obtain a separate dust control permit", since it is confusing.

**Response #135:**

The term "new construction", in Rule 310, Section 404.1 indicates a project that has no connection to an issued block permit. The examples given by the commenter would fall under Rule 310, Sections 404.1(a) through 404.1(c) as either routine operations, maintenance operations, or expansion operations. However the creation of a new pipeline, or pumping station not associated with existing infrastructure would be considered new construction and would not be covered under an existing block permit.

**Comment #136:**

The reference to "canal road grading" should be revised to "canal bank grading," as this term more accurately describes the activity.

**Response #136:**

The MCAQD will revise Rule 310, Sections 404.1(a) and 404.1(b) to read “canal road and bank grading” instead of just “canal road grading”.

**Comment #137:**

Consider revising Rule 310, Section 404.2 since it is difficult to provide a drawing to meet Section 402.3(b) requirements, an exact project location, and an exact project size for ROW locations which traverse Maricopa County.

**Response #137:**

Current wording in Rule 310, Section 404.2 does not require a drawing, rather simply a list of all sites that includes location and size. Typically, applicants simply provide a map or description of the location and describe linear length and average width of ROW.

**Comment #138:**

The purpose of this requirement is unclear. A block permit is only valid for a period of 12 months. Therefore, if an activity does not commence within the 12 months after issuance of the block permit, the source would be required to obtain a block permit renewal, at which time this proposed activity could be reviewed.

**Response #138:**

The MCAQD agrees and has deleted Rule 310, Section 404.3. While this section may seem redundant with Rule 310, Section 406 of this rule, the purpose of this section is to make clear to stakeholders that a block permit will not be granted if the dust generating operation does not commence within one year of issuance.

**Comment #139:**

Suggest MCAQD insert "maintenance and construction" before "crews"; insert "other governmental entities" after "municipalities". Revise last sentence to read "However while municipalities, other governmental agencies and/or utilities may contract for services, it remains the dust generating contractor’s responsibility for compliance with dust control regulations on the project."

**Response #139:**

The MCAQD will insert “governmental agencies,” after the word “municipalities” in Rule 310, Sections 404.1(a) and 404.1(b). However, the MCAQD maintains the current language regarding responsibility for compliance best conveys the intent of this section. Overall responsibility for work under a block permit resides with the permit holder.

**Comment #140:**

Commenters are unclear as to the intent of this condition. We request clarification on why this requirement only applies to block permit holders. All individuals with dust control permits should be required to retain overall authority for dust control on their project, not just block permittees.

**Response #140:**

The intent of Rule 310, Section 404.3 is to make clear that overall responsibility for work under a block permit resides with the permit holder. This is similar to the subcontractor-contractor relationship with non-block dust generating operations permits. While this requirement may seem redundant, the MCAQD's intent is to acknowledge the desire of stakeholders that all requirements placed upon a permit holder be spelled out in applicable sections in Rule 310, even if that same requirement is mentioned in other sections in Rule 310.

**Comment #141:**

The emphasis is on the filing of a complete application. Rather than either approval or denial, will MCAQD notify the applicant of an incomplete application and allow correction or addition within a reasonable timeframe?

**Response #141:**

When an application is incomplete, the MCAQD does notify applicants within 14 days though the notice usually occurs earlier. If an applicant fails to provide the requested information, the Control Officer may deny the application. After a complete application is received, the MCAQD follows the permit requirements in Rule 200, in order to take final action, either approving or disapproving a permit, within 14 days.

**Comment #142:**

Rule 310, Sections 405 and 406 apply to Dust Control permits only. This Rule does not exclude sand and gravel mining permits so it is inconsistent to only discuss Dust Control permits.

**Response #142:**

Rule 316 specifically regulates sand and gravel mining operations. When there exists a source-specific rule like Rule 316, it is not necessary to include a specific exemption for that source in all other rules, including an exemption in Rule 310. Therefore, the purpose of Rule 310, Sections 405 and 406 are intentionally limited to sources that are subject to Rule 310.

**Comment #143:**

Provisions should make clear that permits are administratively continued when a timely renewal application has been submitted.

**Response #143:**

The Department treats timely renewal applications for Dust Control Permits the same way as all other permits. Rule 200 still applies to Dust Control Permits and contains general requirements for administrative continuation of a permit when a timely application for renewal has been filed.

**Comment #144:**

We request this section be revised to state that posting is required only during active operations. If a site is not actively being worked, there may not be a location that is suitable to post a copy of the permit or dust control plan. Another comment requests that requirements for permit posting should be

revised as follows: "be kept available on-site at all times during permitted activities" to eliminate potential for confusion.

**Response #144:**

The posting requirement in Rule 310, Section 409 matches posting requirements for other permits and is also consistent with state statutes. The section recognizes that the permit and Dust Control Plan may be kept in onsite equipment or an onsite vehicle. Like other air quality permits where the permit is not available to the MCAQD when the business is not open, the permit and Dust Control Plan won't be available to the MCAQD when there is no activity occurring on site. No change is necessary.

**Comment #145:**

The language of Rule 310, Section 410 suggests these rules are immediately effective upon adoption. Such an implementation schedule may be burdensome for some. Will the MCAQD have an implementation schedule? Other comments respectfully request that the MCAQD allow for a reasonable amount of time between the adoption date of this rule and the effectiveness date of this rule, such as 6 months. Another comment requests that given the breadth of new requirements, effective date should be June 30, 2008.

**Response #145:**

Rule 310 has been in effect since 1994. Many sources should be familiar with the required control measures and work practices and should already be implementing them. The training requirements, which are new requirements in Rule 310, have a compliance schedule.

**Comment #146:**

What is the definition of "primary dust generating operations"? By implication, can one have secondary dust generating operations?

**Response #146:**

The training requirements in Rule 310 have been written to be consistent with Senate Bill (SB) 1552. The intent of Rule 310, Section 309 is to make clear that for those sites that require a Dust Control Coordinator that individual must be on site when dust generating operations are taking place for which the permit was applied. The example provided during discussions regarding SB 1552 described the delivery of supplies and materials in the middle of the night as a secondary dust generating activity.

**Comment #147:**

Rule 310, Section 410.2-Compliance Schedule-Dust Control Coordinator as drafted is not consistent with SB 1552, which does not contain "common control" language.

**Response #147:**

The training requirements in Rule 310, Section 309 have been written to be consistent with Senate Bill 1552 and have been combined with the permit requirements in Rule 310, Section 302.2.

**Rule 310 Section 500**

**Comment #148:**

Areas that have not been disturbed by the permittee should not be subject to permit requirements for stabilization.

**Response #148:**

The owner and/or operator of a dust generating operation that involves disturbed surface areas must implement control measures for all areas covered by the permit as described in the application and site plan. Properties that are not covered by a Dust Control permit will be subject to the stabilization requirements contained in Rule 310.01.

**Comment #149:**

Suggest that MCAQD require record keeping to be more clearly related to Dust Control permit requirements and not simply to the existence of Dust Control Plan.

**Response #149:**

The requirements in this rule apply to sites that have air quality operating permits as well as sites that have Dust Control permits. The Dust Control Plans contain the specific identification site layout, types of dust generating operations to be performed and the selected control measures for each type of dust generating activity. Recordkeeping requirements are tied to the Dust Control Plan because Dust Control Plans vary based on the dust generating operation being performed. This allows the permit holder to keep accurate records of all activities that apply specifically to the site, while showing compliance with their approved Dust Control Plan. Additionally, Rule 310, Section 502.2 provides the recordkeeping requirements placed upon dust generating activities that do not require a Dust Control Plan.

**Comment #150:**

Comments are concerned with the recordkeeping requirements in Rule 310, Section 502.1. The language proposed in this section has been altered dramatically from the existing rule and requires the regulated community to invest a large amount of resources with only minimal environmental benefit. The recordkeeping section of the current rule requires that inspections be performed and records be maintained when control measures are implemented. Examples of this would include control measures such as applying water, building three sided enclosures to control wind blown particulate, and covering dirt piles. However, the proposed language of Section 502.1 requires that self inspections be performed and records be maintained for each day dust generating operations are conducted. This presents a problem because the definition of dust generating operations is very broad (includes operation of any outdoor equipment and motorized machinery, as well as the use of staging areas, unpaved access roads, and parking areas). The proposed changes would require commenters to perform daily inspections of over 300 substations for dust generating activities that have unchanging control measures (e.g., 15 mile per hour speed limit sign). It is APS and SRP's position that self inspections and recordkeeping should only be required when dust control measures are being implemented. Therefore, we recommend that MCAQD revise Section 502.1 to read as follows: "Any person who conducts dust generating operations that require a Dust Control Plan shall keep a written record of self-inspection on each day

control measures for dust generating operations are implemented/conducted. Self -inspection records shall include daily inspections for crusted or damp soil, trackout conditions and clean-up measures, daily water usage and dust suppressant application. Such written record shall also include the following information:…"

**Response #150:**

The language as written in Rule 310, Section 502.1 requires daily self-inspection any time dust generating activities occur. To keep in compliance with this rule, every time a dust generating activity occurs some sort of control measure is/should be implemented. While these control measures may be the same every time (such as lower speed limits) it is important to record their implementation. Conditions may change at various sites (i.e., increased traffic may require more frequent watering) and new control measures may be required; therefore daily records are a necessary step in showing compliance with Rule 310 along with improving the compliance rates of subject sites.

**Comment #151:**

Comment requests that the current rule language in Rule 310, Section 502.1 be retained. Additionally, Rule 310, Sections 502.1(g) and (h) are inconsistent with SB 1552.

**Response #151:**

The revisions to the existing recordkeeping requirements in Rule 310, Section 502.1 were modeled after the Clark County rule and more clearly describe what actions are necessary in order to record the application of dust control measures daily. Based on the rule effectiveness study, many sites failed to record the implementation of control measures and were not performing the test methods required in the rule. The MCAQD believes the proposed language better clarifies the recordkeeping requirements. Sections 502.1(g) and (h) document the implementation of the new programs required by SB 1552. SB 1552 authorized these programs, but did not address all aspects of these programs or their interface with existing dust control programs.

**Comment #152:**

Define "intensity". What is information is MCAQD attempting to capture here?

**Response #152:**

For the purpose of Rule 310, Section 502.1(a), “intensity” refers to magnitude of a quantity per unit of measurement (area, mass, or time), such as the mixing ratio (concentration) of a dust suppressant with water.

**Comment #153:**

Keeping a list of subcontractors' names and registration numbers updated when changes are made and the name of the employee(s) who successful complete dust control training classes should be removed from the Recordkeeping section. It is not clear as to which subcontractor's names are required-only those that pertain to dust generating operations? What registration numbers are required? The requirement for Dust Control training is for only certain projects thresholds. The requirement to keep a copy of the certificate should also be for only certain project thresholds.

**Response #153:**

These sections will only apply if subcontractors engage in dust generating operations. All subcontractors that engage in dust generating activities would be required to be listed in the self-inspection along with their registration numbers issued by MCAQD under the new Section 306 proposed to be added to Rule 200. If training is not required at a site subject to permit, then the permittee only needs to provide documentation sufficient to verify that training is not required.

**Comment #154:**

This paragraph is confusing as to its intent. Under what circumstances would a person not be required to submit a Dust Control Plan? The records retention requirement appears to be more stringent than Section 503 in that no records retention language is provided.

**Response #154:**

Rule 310, Section 401 describes when a Dust Control Plan is required. There are situations that exist (typically at Non-Title V or Title V permit sites) where a source may be subject to Rule 310 and not be required to submit a Dust Control Plan. In these situations, the recordkeeping requirements of Section 502.2 apply. The text in Section 502.2 is unchanged from the existing text approved in the SIP. Increasing the recordkeeping retention requirement in Section 503 to two years was a recommendation made by the Environmental Protection Agency (EPA).

**Comment #155:**

Comment requests that the current language be retained. Record retention length should be tied to permit term. If the MCAQD wishes to issue permits for two years, then two year record retention would be appropriate. Additionally, as crafted, anyone who drives on a permitted site, including inspectors, would be required to maintain records.

**Response #155:**

Record retention beyond the life of a permit is necessary both for the benefit of the permittee and MCAQD in showing compliance with Rule 310 provisions over the life of the permit. Record keeping requirements are tied to the permit holder required to have a dust control plan, or sources that are subject to provisions of Rule 310.

**Comment #156:**

Test Methods - The opacity measuring Method 203B from the EPA has been left out. There is no method listed. List the EPA method.

**Response #156:**

The methods used for determining opacity are listed in Section 501 of Rule 310. Currently, Appendix C is the test method used to determine opacity at sites subject to Rule 310 requirements, not EPA Method 203B. The opacity methods approved in Appendix C were modified specifically to address the plumes generated by moving equipment and are more appropriate for evaluating dust plume generated on construction sites than Method 203B.

**General Comments:**

**Comment #157:**

Consider the use of advanced dust control methods since water is at a premium here in the desert.

**Response #157:**

The use of dust palliatives or paving or other non-water stabilization and control methods are all viable options under Rule 310 and are available to permit holders under the selective stabilization options and control measures of Sections 304, 305, and 306 of this Rule and Rule 310.01.

**Comment #158:**

Why isn't $PM_{2.5}$ considered?

**Response #158:**

Fugitive dust $PM_{2.5}$ is a subset of fugitive dust $PM_{10}$. Control measures that reduce $PM_{10}$ will also reduce fugitive dust $PM_{2.5}$. Therefore, a specific rule regulating the emissions of $PM_{2.5}$ from fugitive dust sources is not necessary at this time.

**Comment #159:**

Maricopa County is proposing a requirement that permit holders must conduct sieve testing and other stabilization testing as part of their daily recordkeeping requirements. Industry understands this is a requirement under the current Rule 310. If permit holders out of good faith conduct these tests and through recordkeeping prove they are effective in addressing stabilization, the County should only verify the tests are being done. There should be no issuing of NOV's even if they have failing results from time to time and can demonstrate revisions to the plan were made to address test failures.

**Response #159:**

The requirements for stabilization observations are stated in Rule 310, Section 501.2. This section states that when a test method shows an exceedance of the stabilization limits, then that exceedance constitutes a violation of the rule and proves that stabilization methods are ineffective at the site. However, as noted by the comment, the documentation of routine testing and corrective actions can be beneficial to the permittee, if an NOV is issued and referred to enforcement.

**Comment #160:**

In the proposed rules, County-owned unpaved roads have fewer and less strict dust control requirements than do business-owned unpaved roads. This disparity is illustrated in a table in the comment letter submitted by the commenter. If the MCAQD intends to impose increased obligations on the business sector, including requirements for business-owned unpaved roads that are more stringent than the requirements for County-owned unpaved roads, then the MCAQD should clearly justify that disparity and explain and support with facts its assertions summarized above and any others on this subject. Given the significant amount of the $PM_{10}$ problem attributed to fugitive dust from unpaved roads and shoulders - regardless of who owns them - the MCAQD should provide the public with a detailed explanation for its position that its unpaved roads should be subject to less stringent controls than business-owned unpaved roads. In the absence of a convincing demonstration, common sense and fairness should compel the County to adopt comparable regulations for County-owned

sources and business-owned sources of dust emissions. The Chamber requests MCAQD to provide the public with a detailed explanation of its position, including supporting legal and cost analysis, if MCAQD continues to advocate less stringent controls for unpaved roads owned by the County than for unpaved roads owned by businesses.

**Response #160:**

County operations such as landfills, flood control maintenance and rehabilitation, road maintenance and construction activities, equipment yards, service centers, jails, as well as all associated parking lots and access roads are subject to Rule 310 and subject to the same requirements for unpaved roads as business-owned roads. There is no disparity in the application of these provisions between government conducting business that generates emissions and business conducting business that generates emissions. This comment confuses roads associated with conducting business, which operates equipment and/or activities generating emissions, whether private or governmental, with roads managed and operated by government on behalf of the general public to provide access to multiple properties where the public generates the emissions. A number of complicating circumstances apply to public unpaved roads. One example is the situation where the County network road is associated with a patchwork of dedications of which only the newer dedications are specifically to Maricopa County. All other easements must be acquired subject to private property rights and due process. Second, not all unpaved roads used by the public are public highways owned by government. A significant number of roads have a patchwork of ownership, in which the county may not own any of the road or only owns a segment or half of a segment. Third, the County as a government agency uses a variety of funding sources and the federal monies require that an environmental impact analysis be prepared and approved. Fourth, road right-of-ways frequently include utility easements. The location/re-location and access to utilities must be considered in any road improvement project. Finally, there is a substantial body of case law associated with roads that directly impacts any road improvement. Maricopa County has maintained an active program for paving unpaved roads since 1987 that has paved over 500 miles of roads. The funding for this program competes with other transportation priorities such as intersection improvements, capacity enhancements, bridges and signal synchronization that, in some instances, may help keep traffic off of unpaved roads. The cost of paving includes the acquisition of right-of-way, engineering to address traffic safety issues and structural deficits, utility relocation, and actually improving the road surface. Recent estimates from MCDOT indicate that the average cost for paving a mile of unpaved road is approximately $465,000. Approximately ⅓ to ½ of the total cost is spent on paving or applying a surface treatment. The remainder is spent on right-of-way acquisition, design, and engineering. MCDOT's lifecycle cost analysis indicates that road paving is more cost effective than applying dust suppressants. The formation of new unpaved roads through lot splits, wildcat subdivisions, or businesses exempt from planning and zoning requirements result in ever changing impacts increasing traffic on outlying roads in the existing public highway network.

**Comment #161:**

They would like to develop an on-line dust prevention training program and coordinate with the County Dust training class.

**Response #161:**

MCAQD recommends that the commenter contact the MCAQD's Dust Compliance Division to discuss the approval process for curriculums and the certification of trainers.

**Comments #162:**

Roofing company requests exemption for tile cutting on residential rooftops which creates dust. OSHA safety concerns prohibit water being used on tile rooftops to prevent dust. Pre-watering as a control measure is also an OSHA safety concern on rooftops.

**Response #162:**

Tile cutting that is occurring on a site with a dust control permit is subject to the dust control plan and provisions of Rule 310. Tile-cutters are not limited to water as a control measure. Sections 205, 305, and 402 of this rule allows flexibility in choice of control measure for this activity.

**Comment #163:**

Roofing company requests a clearer definition of when an operation is a non-permit activity or is required to obtain a permit subject to a Title V, non-title V or General Permit.

**Response #163:**

If tile cutting occurs on a site that already has a dust control permit or is part of a stationary source (e.g. tile manufacturing facility), than that operation falls underneath the jurisdiction of that permit. If tile cutting is the only activity or occurs on an unpermitted site (re-roofing project), masonry cutting is on a list of insignificant activities that do not require a permit in Rule 200 Appendix D. However, Rule 200 Section 303.3.c states, "… any source that is exempt from obtaining a Non-Title V permit according to this section shall still comply with all other applicable requirements of these rules." Other applicable requirements include the visible emission limitations. Tile cutting activities are the source of a number of complaints MCAQD receives each year. MCAQD inspectors have documented dust plumes from tile cutting that violate the visible emission standards, recording some 6 minute averages as high as 60%.

**Comment #164:**

Two legal references concerning responsibility of government regulation to be clear:

1. A.R.S. § 41-1001 et seq. See G.D. Ltd. Travel v. City of Lake Oswego, 436 F.3d 1064, 1084 (9th Cir. 2006) (holding that a government regulation is vague if it "fail[s] to give persons of ordinary intelligence adequate notice of what conduct is proscribed.")

2. Federal Administrative Procedure Act, "[a] rule may [] be invalidated . . . if an agency fails to explain the rule adequately." Alvarado Comm'y Hosp. v. Shalala, 155 F.3d 1115, 1122 (9th Cir. 1998)

**Response #164:**

MCAQD notes the cited legal statues and case law and thanks the commenter for their submission.

**Comment #165:**

The MCAQD feels that there should be no warnings issued, thus allowing a homebuilder a chance to correct a possible violation. In every other aspect of our industry, inspectors come out and give warning notices so we can have a chance to correct deficiencies. Why can't we have a similar process in regards to dust control?

**Response #165:**

Nothing in this notice of proposed rule making affects the County's enforcement policy or administrative due process.

**Comment #166:**

What I have trouble understanding is why would Maricopa County continue to consider adopting costly and unnecessary regulations on the home building community when the measures have yet to demonstrate that they reduce dust nor are they necessary for the 5% plan.

**Response #166:**

Construction activities constitute a large percentage of PM10 pollution in the nonattainment area (approximately 38% of the 2005 periodic emissions inventory). Reducing PM10 emissions from this major contributor is a necessary component to achieving the required 5% reduction in PM10 emissions as specified by an approvable 5% plan.

**Comment #167:**

Here are just a few of the proposed changes that seem to cause an undue hardship on the home building industry, yet it is not clearly demonstrated that they have any positive effect on reducing dust: only allowing a 25 foot trackout area, increased recordkeeping requirements, zero visible emissions at the property line, holding home builders responsible for trespassers such as ATVs and dirt bikes, and immediate clean-up of trackout areas.

**Response #167:**

The 5% plan as currently prepared by MAG does show emissions reductions from the rule 310 requirements listed in this comment. Chapter III and IV of Appendix C, Exhibit 1, of the 5% Plan provide a detailed accounting of PM10 emission reductions achieved through these rule 310 requirements

**Comment #168:**

If we have already achieved significant and serious reductions through the training/coordinator program, met the tonnage required for the 5% plan, why are we adopting costly measures on the home building industry during these difficult economic times that do not reduce dust?

**Response #168:**

The 5% plan also has to demonstrate attainment at violating monitors. The microscale inventory developed for the Higley monitor estimated that 80% of PM10 affecting that monitor comes from construction on the design day. All of the new rule 310 requirements (including training programs) contribute to the reduction of PM10 emissions and are necessary to achieve the attainment at the monitors and the mandatory 5% reduction as required by the 5% Plan.

**Comment #169:**

The proposal does not comply with A.R.S. §49-112. Before imposing requirements more stringent than found elsewhere in the state, the MCAQD must make the finding required by A.R.S. §49-112. The conclusory paragraphs on page 37 of the preamble do not meet this burden. In particular, the discussion does not explain why the regulation is necessary to achieve attainment. The discussion does not identify what credible evidence exists to show that the rule revisions are necessary to prevent a significant threat to public health or the environment. The discussion does not identify what credible evidence exists to demonstrate that the proposed rule revisions are technically and economically feasible. The discussion does not identify what credible evidence exists that these particular measures are required under federal statute or regulation. Section 189(d) simply requires the development of a plan showing 5% annual reductions. It does not specify what measures are required to be included within that plan. Fundamentally, the MCAQD cannot meet its burden at this time. Imposing additional measures in Rule 310 is unauthorized under A.R.S. §49-112 because the MCAQD has not demonstrated that emission reductions are associated with these various rule revision proposals and has not demonstrated that rule revisions are necessary to comply with the Five Percent Plan.

**Response #169:**

Maricopa County has met its burden of demonstrating compliance with A.R.S. §49-112. Item #6 in the Notice of Proposed Rulemaking laid out the peculiar local condition in Maricopa County not found elsewhere in the state that result from the ongoing failure to meet the health-based federal $PM_{10}$ standard and all associated requirements under the Clean Air Act. It included the appropriate legal citations. The explanation also laid out the legal requirements for the Five Percent Plan. The preamble to this Notice of Final Rulemaking includes a substantial amount of information in various other sections that supplement the discussion in Item #6. Item #5 in the Notice of Proposed Rulemaking contained the explanation for initiating the rulemaking. It included a background summary and discusses the current revisions. It noted that under CAA requirements, the MCAQD rules were required to address significant contributors by imposing BACM/MSM. The explanation in this section notes that a low compliance rate was identified through a formal rule effectiveness study. It noted that the current rules are not working as effectively as predicted and more reductions are needed. Further discussion described a review of measures from western areas that met the $PM_{10}$ attainment date to identify what else could be done. As noted, the County looked at measures that are already adopted and implemented. The Preamble also included Item #7 that provided a list of references to any studies relevant to this rulemaking that included several references to feasibility studies. Item #9 provided the preliminary summary of the economic, small business, and consumer impact.

**Comment #170:**

Rather than add new rule requirements that will increase the potential for noncompliance, the MCAQD should focus its efforts on ways to increase compliance with the current rule. Assuming that the MCAQD's 51% compliance rate is accurate, the HBACA asserts that it would be more appropriate to

focus on ways to improve compliance rather than add new control measures to Rule 310. That is why the HBACA supported the training provisions in SB 1552, which will reduce emissions by several thousand tons per year. The HBACA requests an explanation as to how each of the proposed rule changes will increase compliance with the current rule, rather than raise the potential for reduced compliance in the future. The HBACA renews its request that the MCAQD focus on measures to improve compliance, not adopt new requirements that threaten to decrease compliance.

**Response #170:**

Rule effectiveness is a product of control effectiveness and the associated compliance rate. Three main factors associated with any rule contribute to a rule's effectiveness. These factors are clear, understandable requirements implementing effective controls, a regulated source's knowledge of what's required, and consistent enforcement of rule provisions. Given the magnitude of reductions that are necessary to attain the standard and demonstrate 5% per year reductions, Maricopa County's commitments for the 5% Plan address all three factors. To illustrate the magnitude of the challenge in this plan and to this rulemaking, approximately 80% of the PM10 emissions contributing to exceedances of PM10 standard at the Higley monitor came from construction. The MCAQD does not agree that the additional control measures threaten to reduce the compliance rate in the future. Several of the proposed revisions are specifically designed to improve onsite management of dust control efforts adding motivation to effective training and education. Some measures, such as the property line standard and 25 feet trackout, were included to make these rules consistent and uniform with other MCAQD rules. Under the Salt River Monitor SIP, these measures were identified as BACM/MSM in Rule 316 for another fugitive dust source category after the last revisions were made to this rule. These measures also provide visual clues to onsite personnel that their control measures aren't working as designed and corrective actions are necessary. The revisions also propose to reorganize and streamline the rule improving clarity. A summary list of all rule requirements has also been included to remind sources of rule requirements. Another revision to the recordkeeping section clarifies what's necessary to document control measure implementation.

**Comment #171:**

Government entities, utilities, and the private sector should be subject to the same requirements. According to the MCAQD's own estimates, the residential single family construction industry contributes 4% of the emissions in the Maricopa County nonattainment area. The contributions of unpaved roads, unpermitted sources, and other construction sources are all higher. Yet, the MCAQD continues to impose greater burdens on the single family residential homebuilding community than any other group. Rule 310 contains a hierarchy of requirements. Unpermitted sources are subject to none. Government and utilities are subject to some. Permitted sources are subject to many. And large-acreage projects, of which residential developments are the most common, are subject to the most requirements and the largest number of inspections compared to any other activity (even though the MCAQD's own emissions inventory states that home building contributes less dust per acre than

commercial or road building). The dichotomy between permitted and unpermitted sources under Rule 310 and 310.01 is even more pronounced. The HBACA incorporates the comments of the Arizona Chamber Of Commerce to this point (attachment to original comment letter not reproduced here). There is no justification for imposing more requirements on one of the smallest contributors. The single family residential community is not asking for fewer requirements. We just want everyone else to meet the same requirements we already do. Adding new requirements on our industry will only make the current unfairness more pronounced. This rule would impose steep financial burdens on our members, the individuals who are employed by our members, the businesses who transact with our members, and our eventual home buyers. This proposal is an unnecessary roadblock on the path to the recovery for our industry. We believe the only way to move Maricopa County towards attainment is to raise the compliance efforts at far more significant sources, such as unpermitted sources and unpaved roads, to levels similar to those already found in the single family residential home building community.

**Response #171:**

The MCAQD disagrees that the residential homebuilding is one of the smallest sources. The 4% contribution mentioned above fails to include the major site preparation and infrastructure installation performed before a homebuilder moves in to local streets and houses. The number also fails to recognize that residential homebuilding as with other types of construction is a significant contributor to dust loadings on paved roads that give rise to re-entrained paved road estimates in the inventory. Further, $PM_{10}$ concentrations are significantly influenced by nearby sources. While a source category may not contribute as much to a regional inventory, the magnitude of the dust emissions from a construction site near a monitor can be much more significant. In the Five Percent Plan attainment demonstration for the Higley monitor, construction contributed 80% of the $PM_{10}$ emissions on the design day and residential construction was responsible for 13.8% of $PM_{10}$ emissions. To demonstrate attainment at the monitors, significant reductions in construction emissions, whether from residential or other types of construction all of which are regulated by the same rule, are necessary. Hence, the proposed revisions to these rules. As stated earlier, government entities, utilities, and the private sector are subject to the same requirements. See the responses to comments #8, #24, #133, and #160. Unpermitted sources do have applicable requirements consistent with legal authority and feasibility analyses. See response to comment #6.

**Comment #172:**

Identify the emission reductions associated with each proposed change. To claim reductions in the Five Percent Plan and to comply with ARS §49-112 and 41-1055, the MCAQD must identify the emission reductions associated with each specific proposed measure, before this rule is adopted. The HBACA has been supportive of measures that increase compliancy and reduce dust. The reason we do not support the proposed revisions to Rule 310 is that we have yet to see the amount of dust reduced by these very costly measures. For example, what are the emission reductions associated with the

following: changing the trackout length from 50 feet to 25 feet, changing the definition of unpaved parking lot to eliminate size threshold, adding new Section 302.2, imposing a property boundary standard that contains no exemptions for wind events or other causes that are beyond the control of a source; and imposing new recordkeeping requirements.

**Response #172:**

Neither A.R.S. §49-112 nor 41-1055 specifically requires quantification of emission reductions by proposed rule changes. The Notice of Proposed Rulemaking does include Section 9 that contains the preliminary summary of the economic, small business, and consumer impact required by A.R.S. 41-1055. Further, the notice does provide a qualitative statement indicating that the measures are designed to improve compliance, thereby reducing emissions. The 5% Plan was released for public comment and finalized after this Notice of Proposed Rulemaking was prepared. In the 5% Plan, MAG has made extensive efforts to show how all the adopted measures of the five percent plan result in PM10 emission reductions. In particular, the actual emission reduction calculations for all adopted measures (including the impact of Rule 310 changes) can be found in the technical support document of the five percent plan document. MCAQD will add the quantification included in the final 5% Plan in the draft Notice of Final Rulemaking for Board consideration. The response to comment #170 discusses the compliance rate and the proposed rule revisions. As a note, however, the revision that eliminates the unpaved parking lot size threshold was necessary to make the rule consistent with the new requirements for unpaved parking lots under SB1552. The revision implements that statute, and is therefore not subject to 49-112.

**Comment #173:**

The HBACA is extremely concerned about the economic consequences to adopting these costly measures when the MCAQD has failed to quantify whether we will come into attainment or actual reduction of dust benefited by the rules changes (other than the dust coordinator and training). We have estimated that, on average, these measures will cost $11,740 per residential unit. These are significant costs that WILL have an economic impact on the home building community while there is no proof that these additional costly measures are necessary for the 5% plan. We would like the County to identify one other sector of the regulated community that is in agreement on these types of large reductions in our mutual goal of compliance with the CAA? It is the other additional costly measures that the HBACA strongly believes are unnecessary to reach compliance with the 5% plan.

**Response #173:**

The analysis included with the comment overstates the costs associated the proposed rule revisions. Generally, the calculations include avoided compliance costs, include costs for rule provisions that have been modified as a result of comments, do not analyze all control measure options available, and overstate the cost of control measures (e.g. frequency of application or consultant versus dust control coordinator responsibility). The analysis also fails to consider any benefits from the revisions from more effective application of controls such as avoiding the application of too much water leading to

trackout. However, some of the costs are appropriate and will be included in the economic analysis for in the rulemaking. To illustrate the points above, training onsite personnel and monitoring onsite dust control does not require additional watering. The appropriate costs are the training costs and time spent by the designated dust control coordinator. If additional watering is necessary, then the site must not be fully implementing existing controls. Avoided compliance costs for existing requirements should not be included in the current analysis. Second, as noted in the response to comment #52, the property line standard has been modified. Third, trackout does not instantaneously become a problem, it builds up over time. The revision of the trackout cleanup trigger will require that the trackout control device and onsite set up be evaluated sooner. Corrective action should minimize the number of sweeps or amount of manual cleanup that will be necessary. However, constant sweeping and the weekly trackout control device maintenance frequency listed in the comment calculations overstate new incremental costs and continue to add in avoided compliance costs with existing rule provisions. Fourth, the analysis of stabilization does not include an analysis of the barriers and watering option. Finally, Rule 310 already requires owner/operators to conduct the compliance tests. The proposed recordkeeping revision explains what the owner/operator should be doing to document the implementation of control measures. The provision requires the types and result of test methods conducted. This provision does not preclude the use of surrogates developed by the dust control coordinator to evaluate control measure implementation daily (e.g. scuffing soil surface with boot). Many industries use simple surrogates to evaluate compliance in place of the more formal test methods. Further, since the rule and SB1552 already require that a dust control coordinator be present on site at all times, that individual should be capable of performing any testing required. Adding consultant costs in addition to the Dust Control Coordinator cost overstates the cost.

**Comment #174:**

Administrative due process is needed. While enforcement actions gain headlines and income for Maricopa County, they can also foster deep resentment and mistrust in the regulated community. The MCAQD believes: The apparent motivation for the desire to have an appeals board seems to be based on the assumption that such a board would dismiss or reduce penalties for NOVs more easily than the Enforcement Division does already. [MCAQD responses to the "Issues To Address In Rule 310"] The HBACA is disappointed that the MCAQD appears to have such a negative view of our industry. The MCAQD has acknowledged that its inspectors are not "fact finders". All the regulated community requests is an opportunity to be heard before a neutral arbiter before being subjected to their "choice" of either paying a fine determined by the MCAQD or being sued. The due process rights that the HBACA seeks are fundamental ones, and we believe that all should be supportive of this long-standing American tradition. As part of the Five Percent Plan development, Maricopa County has committed to hire dozens of new inspectors. With new inspectors comes the increased potential for inconsistent enforcement. Due process is needed to ensure that all inspectors enforce the laws equitably and consistently. As you are probably aware, this is a process that exists in Clark County and Pima County,

two areas that are currently meeting the PM10 standards. We believe this is not an anomaly. Providing due process increases industry's belief in the fairness of the process and ultimately will increase compliance.

**Response #174:**

Nothing in the Notice of Proposed Rulemaking affects the County's enforcement policy or administrative due process.

**Comment #175:**

Subcontractors must be clearly identified. SB 1552 also included an important subcontractor registration program. Successful implementation depends on a clear identification system. First, the identification number issued to a contractor needs to be regulated just like the fonts on a dust control sign (e.g., 4" min. height, black block letters over a white background). Additionally, the MCAQD needs to mandate the placement of the ID numbers on contractor's vehicles and equipment. For example, pickup trucks-ID number is to be placed on the back-of each side of the truck bed just below the top of the bed; water trucks-ID number is to be placed on the top back corner of each door; earthmoving equipment-ID number is to be placed on each side in a conspicuous location. Rental equipment will need to be identified as well. Magnetic stickers will have to be used with the contractor's ID number. The contractor will have to install and remove the magnets as equipment is delivered and removed from job sites. Finally, the MCAQD needs to notify all registered contractors of the new process and the time frame to get registered and vehicles identified with their designated ID number. If a contractor is not registered a violation should be issued to the contractor not the permit holder.

**Response #175:**

A.R.S. 49-474.06 states, "The subcontractor shall have its registration number readily accessible on site while conducting any dust generating operations." The display of the registration number on a subcontractor's vehicle is only one way of satisfying the requirement to have the number readily accessible. Rule 200, Section 306.2 describes three ways a subcontractor can use to satisfy the requirement to have the subcontractor registration number readily accessible. The MCAQD believes that restricting the display of the subcontractor's registration number to a single method results in an overly restrictive interpretation of "readily available". No change has been made to the rule. The MCAQD agrees that all contractors need to be notified of the new subcontractor registration program and what's required under that program. As stated in the informal rule workshops, the MCAQD plans to notify subcontractors and will work with stakeholders to develop an outreach strategy and appropriate materials. Under the rules as proposed, the notice of violation for failing to register would be issued to the subcontractor who failed to register.

**Comment #176:**

Changes during the stakeholder process should be identified. It appears that this rule proposal was predetermined, as there have been very few changes made during the stakeholder process. To address

this concern, please identify all substantive changes from the MCAQD's original stakeholder draft and the rule as proposed on August 29, 2007.

**Response #176:**

The MCAQD provided a side-by-side comparison of changes during the informal workshop process and identified rule changes in each draft rule via crossed-out and underlined text. The side-by-side comparison of changes and draft rules were available electronically in Word. As this rulemaking was initiated to address measures needed for a required SIP revision, the requirements for 5% per year reductions and to attain as expeditiously as practicable must be addressed. The Notice of Final Rulemaking contains a list of changes from the existing rule to the proposed rule in the Notice of Proposed Rulemaking. Further, the Notice of Final Rulemaking always contains a section that discusses the changes between proposal and final action.

**Comment #177:**

Account for employee turnover – there should be a 90 day grace period for new employee hires to attend dust control training class.

**Response #177:**

Rule 310 has been written to be consistent with Senate Bill 1552 for dust control training.

**Rule 310.01, Section 100:**

**Comment #178:**

Unlike Rule 310, Rule 310.01 does not have any exemption for wind events. Since wind erosion may occur as a result of sustained high winds, even with good stabilizations, it seems that the same acknowledgement of wind events would be appropriate.

**Response #178:**

Rule 310 does not contain an exemption from the stabilization standards for wind events. The limited affirmative defense for wind events applies only to the opacity standard.

**Comment #179:**

The term "any open area" is overly general without area threshold definition established. Conceivably, one foot square or less could be considered an open area. One reasonable suggestion may be to use 0.10 acre as open area threshold before regulation.

**Response #179:**

"Open area" is defined in Rule 310.01, Section 221. The definition matches the Environmental Protection Agency (EPA) definition used in the Federal Implementation Plan.

**Comment #180:**

Suggest the term "ceased" be used instead of "completed".

**Response #180:**

Rule 310.01, Section 103.4 was originally in the definition of "disturbed surface area". Rule 310.01, Section 103.4 is being proposed as a new section to make it clear which activities are exempt from Rule 310.01. No change was made to the final rule.

**Comment #181:**

What is the scope of the term "commercial"? Does this include government owned property?

**Response #181:**

Commercial property refers to property used for the purposes of generating revenue or business transactions and does not include government owned property.

**Comment #182:**

Comments suggest that Rule 310, Section 103.7 be revised to accommodate the potential for trespassers, as follows: "An unpaved roadway (including alleys) is not a horse trail, hiking path, bicycle path, or other similar path for which the designated use is ~~used exclusively~~ for purposes other than travel by motor vehicles." This change is necessary, as the owner/operator of the trail or path should not be held accountable for illegal activity beyond its control.

**Response #182:**

This exemption was originally part of the definition unpaved roadway and is already in the SIP. The MCAQD maintains that the current language of the exemption is necessary to make it clear that if an unpaved roadway is used in any way by motor vehicles (intentionally or unintentionally), the unpaved roadway is subject to the provisions of Rule 310. A blanket exemption for trespassing is not appropriate and relaxes the rule. The MCAQD has no way to distinguish the vehicles of trespassers from those driven for legitimate uses. The owner/operator is ultimately responsible for conditions and emissions coming from their properties. The owner/operator will need to investigate why illegal activity is occurring, take steps to minimize the activity and mitigate the effects of that activity. The owner/operator can present information regarding the circumstances leading to a Notice of Violation should the situation escalate to the enforcement stage.

**Comment #183:**

Rule 310.01, Section 104 should be removed from the Table Of Contents since it does not exist in this rule revision.

**Response #183:**

The MCAQD will make the requested change.

**Rule 310.01, Section 200**

**Comment #184:**

A clear definition of utilities should be added to the definitions. Throughout the regulations, whenever "utilities" are referenced a parenthetical definition follows. For consistency and clarity, all definitions should be contained in a Definitions section. An oil pipeline is not typically considered a "utility". Utilities should include interstate gas transmission and interstate gas transmission in addition to local gas distribution. Consider the definition of Utilities - Transmission or distribution of electricity, natural gas, oil and other petroleum products, water, gasoline including interstate natural gas transmission and intrastate natural gas transmission.

**Response #184:**

MCAQD maintains that the parenthetical definitions of utilities described in this rule best reflect the intended applicability of the Rule.

**Comment #185:**

The same comment provided under Rule 310, Section 202 "area accessible to the public applies here to Section 203 as well.

**Response #185:**

See the response to comment #12.

**Comment #186:**

There are circumstances where a roadway may by primarily used by a utility for routine access to facilities but must be kept open (i.e. not gated) for use by emergency vehicles. Despite adequate signage, members of the public may use this roadway without authorization. The regulations should recognize this and provide indemnification for the owner/operator of the roadway against misuse of the road.

**Response #186:**

A blanket exemption for trespassing is not appropriate and relaxes the rule. The MCAQD has no way to distinguish the vehicles of trespassers from those driven for legitimate uses. The owner/operator is ultimately responsible for conditions and emissions coming from their properties. The owner/operator will need to investigate why illegal activity is occurring, take steps to minimize the activity and mitigate the effects of that activity. The owner/operator can present information regarding the circumstances leading to a Notice of Violation should the situation escalate to the enforcement stage.

**Comment #187:**

Suggest including "animal waste" in the listing of bulk material. Animal waste is often transported in large quantities. Animal waste when dried often can create fugitive dust.

**Response #187:**

While animal waste is not specifically listed in this definition, it is included in Section 302.8 that regulates the hauling of animal waste from livestock activities.

**Comment #188:**

Farmers must obtain a dust control permit if they leave a field fallow for economic consideration, or if they are hired to control weeds on another owner's small field. It is impractical and cost prohibitive for a farmer to obtain and meet all conditions of a dust control permit as stated in Section 403 Rule 310. If an owner/operator does not perform weed control the weeds become a fire hazard and, in some cities, can fall under nuisance ordinances.

**Response #188:**

A fallow field that is part of normal farm crop rotation schedule is exempted from Rule 310 under Section 103.1. However, if a field or portion of a previously designated agricultural land has been sold or designated for use as a commercial or residential property, the applicable provisions of Rule 310 and Rule 310.01 do apply.

**Comment #189:**

How does “earthmoving” in Rule 310.01 differ from” earthmoving” in Rule 310?

**Response #189:**

There is no difference in definition of "earthmoving" between Rule 310.01 and Rule 310.

**Comment #190:**

Perhaps define palliative or strike the term in favor of "other approved dust control material".

**Response #190:**

For purposes of this rule, a palliative means a substance that treats or moderates the intensity of the process of dust creation. The dictionary definition will be adequate.

**Comment #191:**

Suggest including "nor controlled" after "capture". In either case the goal is met by preventing further transport of dust into the atmosphere or beyond property boundaries.

**Response #191:**

MCAQD used the definition found in EPA reference documents. The definition in this section remains unchanged from the existing rule adopted by EPA.

**Comment #192:**

The proposed language related to gravel pad design requirements (i.e., the last two sentences) should be moved to a more appropriate section of the draft rule, such as Section 302.6, as this language pertains to the requirements for trackout control.

**Response #192:**

Section 306 requires the installation and utilization of trackout control devices and does not address each possible type of device individually. The only reference to a gravel pad occurs in the definition of trackout control device in section 228, thus this definition for gravel pad is clarifying another definition. This additional language is necessary to define when the layer of gravel will qualify as a trackout control device.

**Comment #193:**

A "tract of land" needs to be clearly defined. There are many "tracts of land" that are adjoining to, and are considered an integral part of exempt farm cultural practices, and non-traditional sources of fugitive dust.

**Response #193:**

For purposes of this rule, the MCAQD recognizes tracts or lots of lands as identified through the Maricopa County Assessor’s Office.

**Comment #194:**

Rule 310.01: The old rule governing dust suppression “livestock areas”; the new rule reads “livestock activities”. I am concerned this will affect trail riding where an equestrian activity might generate dust. Please refer back to old statement.

**Response #194:**

Rule 310.01 does not apply to activities on horse trails, as exempted in Rule 310.01, Section 231-Definition Of Unpaved Roadway (Including Alleys). However, horse arenas are subject to the provisions of Rule 310.01 that apply to livestock activities.

**Comment #195:**

Suggest the MCAQD move this definition into the first paragraph of Rule 310.01. It appears the key distinction between Rules 310 and 310.01 is the expectation that Rule 310.01 and only Rule 310.01 area sources will not require permits.

**Response #195:**

Rule 310.01, Section 101 describes the purpose of Rule 310.01: To minimize the amount of fugitive dust entrained in the ambient air from non-traditional sources of fugitive dust by requiring measures to prevent, reduce, or mitigate fugitive dust emissions. The term "non-traditional source of fugitive dust" is defined in Rule 310.01, Section 218. It would be redundant to add the definition of the term "non-traditional source of fugitive dust" to Rule 310.01, Section 101.

**Comment #196:**

Suggest MCAQD further refine this definition to emphasize the recreational nature of examples of list. Transportation system designed for non-road travel could fit into this list and are hardly recreational in nature.

**Response #196:**

The MCAQD will make note of the comment, but the definition of "off-road vehicle" is not being revised in this rulemaking.

**Comment #197:**

Clarification is needed on the definition for an unpaved parking lot. There are unpaved areas associated with the agricultural industry, or exempt farm cultural practices and non-traditional sources of fugitive dust. Farm yards, plant nurseries, large alleyways (essential for fire control) between hay sheds, grain or feed storage facilities, chemical and fertilizer storage areas, animal pens, stalls and barns, animal staging areas, arenas and livestock showing areas are some examples of unpaved parking or unpaved work areas that are part of a farming operation. The rule should clarify that these are part of the agricultural operation.

**Response #197:**

Rule 310.01 exempts all activities that fall under normal farm cultural practices from Rule 310.01 provisions including the vehicular parking and maneuvering areas associated with them. Therefore, there is no need to specifically exempt normal farm cultural practices within the definitions of open areas and vacant lots (Section 221) or unpaved parking lot (Section 230) or unpaved roadway (Section 231). Further, Rule 310.01, Section 302.8 addresses unpaved areas associated with livestock activities.

**Comment #198:**

Suggest MCAQD insert "non-traditional" after "a" and before "fugitive"

**Response #198:**

The definition of “owner and/or operator” is not being revised in this rulemaking.

**Comment #199:**

There are circumstances where a roadway may by primarily used by a utility for routine access to facilities but must be kept open (i.e. not gated) for use by emergency vehicles. Despite adequate signage, members of the public may use this roadway without authorization. The regulations should recognize this and provide indemnification for the owner/operator of the roadway against misuse of the road.

**Response #199:**

See the response to comment #186.

**Comment #200:**

Suggest that area threshold be established; 0.10 acre has been used within these draft rules as regulatory triggers. Such a threshold would clarify requirements. As this clause is written, one square foot could fall within this definition.

**Response #200:**

The MCAQD’s intent is to be consistent with Senate Bill 1552 in the definition.

**Comment #201:**

Please further define "open trail system" with a few examples. Other comments request that the MCAQD provide better clarification in the rule with regards to what is encompassed in "designated or opened trail systems and service roads". As written, it is not clear what exactly would be considered an unpaved road under this definition.

**Response #201:**

In response to stakeholder’s questions, the MCAQD clarified where designated and open trails fall. After a review of state statutes, the Code Of Federal Regulations, the Maricopa County Zoning Ordinance, and meeting with a group of public and trust Land Managers, the following language was determined: Designated Or Opened Trail System: Roads or routes that are part of a system of trails and that are designated or opened by a government land management agency by order, sign, and/or map approved by such agency.

**Comment #202:**

Commenters believe that all private and semi-private roads are sufficiently regulated under Maricopa County Rule 310. Therefore, we recommend that the term "Quasi-governmental" be removed from the definition of "Unpaved Roadway (Including Alleys)."

**Response #202:**

MCAQD acknowledges the comment and will consider the suggestion the next time Rule 310.01 is reopened.

**Comment #203:**

As this paragraph, 301.2(b) is written, MCAQD could, without involvement of the judiciary, enter and conduct governmental action. Is this the authority MCAQD is asking for? What is the measure of

appropriateness? Is there any opportunity for land owner to take action prior to MCAQD action? There is no discussion of possible emergency conditions which could prompt such governmental action. Is this what we want here?

**Response #203:**

A.R.S. 49-474.01(11) enacted in SB 1552 requires Maricopa County to adopt rule provisions regarding the stabilization of disturbed surfaces of vacant lots by March 31, 2008. Rule 310.01 Section 301.2 contains the proposed provisions to implement that statute. The land owner does have an opportunity to take action prior to County action. Under A.R.S. 49-474.01(11), the County must give notice to the property owner that the disturbed surface is required to be stabilized containing the information listed in the statute. If the lot has not been stabilized by the day set for compliance, the statute authorizes the County to enter the property to stabilize the disturbed surfaces at the expense of the owner.

**Comment #204:**

State in the rule language a timeframe between issuing the owner/operator a notice of violation (NOV), and compliance enforcement from Maricopa County.

**Response #204:**

This request is more appropriate for the enforcement policy. The back of the current NOV provides the owner/operator with information regarding the enforcement process, appeals and timeframes. At the request of stakeholders, MCAQD is in the process of designing a supplemental insert to be provided with the NOV to be more readily available to the owner/operator.

**Comment #205:**

Including this section 302.3 in the rule allows a source to receive multiple violations for what is actually (and legally) a single violation. For example, if a source does not implement the appropriate control measures for an unpaved parking lot, that source could be cited as violating Sections 302.6(b) and 302.3. MCAQD indicated in stakeholder meetings that this requirement was added to provide clarification regarding what actions would constitute a violation. If this is indeed the reasoning, it would make more sense to provide a guidance document that clarifies what constitutes a violation of the rule. This section of the rule could then be removed.

**Response #205:**

The purpose of the proposed changes in Sections 302.1—302.3 was to summarize general requirements for non-traditional sources of fugitive, not to increase the possible number of violations cited by MCAQD. The explanation section in the Notice of Proposed Rulemaking and in the Notice of Final Rulemaking indicates and will indicate that MCAQD is proposing these requirements to clearly summarize and remind owners of all the various requirements contained in Rule 310.01. Following Clark County's example, MCAQD is including a similar list in the rule itself as guidance documents that accompanied this rule in the past have not been widely read. MCAQD confirms yet again that the Department will not reference Sections 302.1—302.3 when issuing a Notice to Comply or Notice of Violation.

**Comment #206:**

It is understood that an owner/operator is responsible for the actions of contractor, maintenance crews, and themselves, but Rule 310.01, Section 302.4 will make the owner/operator responsible for anyone trespassing on the property in question, even if adequate signage is present. It seems unjust to force an owner/operator to incur the expense of fencing off areas due to the criminal activities of the trespassers. It would be completely impractical to fence miles of ROW and it could be specifically forbidden in the contract granting for the ROW. The public in general would likely not tolerate miles of fencing running throughout Maricopa County if all users of ROWs suddenly began installing visible fencing everywhere.

**Response #206:**

See response to comment #186 regarding trespass. The MCAQD notes that ROWs are subject to Rule 310.01, Section 302.10 not Section 302.4.

**Comment #207:**

The following comments apply to Rule 310.01, Sections 302.4(a), 302.5(a), and 302.6(a)(1). The referenced provision reads: "The owner and/or operator of a dust generating operation shall not cause or allow visible fugitive dust emissions to remain visible in the atmosphere beyond the property line." At least two other jurisdictions have concluded that absolute prohibitions against visible emissions crossing a property line are unconstitutional. In Ross Neely Exp. v. ADE, the Alabama Supreme Court held that a state rule prohibiting visible emissions from crossing a property line: "is clearly overbroad, encompassing every situation in which visible fugitive dust emissions move across a lot line, without regard to damage, injury, or inconvenience caused, reasonable attempts at control, etc. This invades the area of protected freedom, severely restricting the use of property, and creases [sic] a situation where discriminatory enforcement is almost inevitable." Ref: 437 So.2d 82, 85 (Ala. 1983); see also CF & U v. CAPCC, 640 P.2d 238 (Colo. App. 1981) (holding that property boundary standard "contravenes fundamental due process rights"). The Chamber respectfully requests this subsection be removed from the draft rule. Another commenter states that even if MCAQD can provide satisfactory answers to those questions, the provision should be reworded. In addition, it is inappropriate for this section to refer to "particulate matter, including fugitive dust". Any requirements contained in this rule should only pertain to fugitive dust, which is in keeping with the title and purpose of this rule. APS and SRP suggest the following revision: "The owner and/or operator of a non-traditional source of fugitive dust that involves vehicle use in open areas and vacant lots shall not cause or allow visible emissions of ~~particulate matter, including~~ fugitive dust beyond the property line within which the emissions are generated. <u>The owner and/or operator shall be exempt from this requirement if it can demonstrate that it is implementing best available control measures, as defined by Section 302.4.b of this rule.</u> " Another comment requests that the rule language should state a time limit for visible fugitive dust emissions to remain visible in the atmosphere beyond the property line.

**Response #207:**

The EPA refined the national ambient air quality standard for particulate matter in 1987 to inhalable particulate matter 10 microns or less in aerometric diameter, since both court decisions. Unlike the two jurisdictions cited in the comment, the Phoenix $PM_{10}$ Nonattainment Area failed to meet the 24 hour $PM_{10}$ standard by December 31, 2006. As a result, residents still have the potential to be exposed to unhealthy levels of $PM_{10}$. Exceedances are recorded under both stagnant and elevated wind conditions. Secondary aerosols are not significant contributors to the exceedances recorded in Maricopa County. Geologic material (e.g. dust) remains the dominant constituent of $PM_{10}$. Locally generated $PM_{10}$ significantly contributes to recorded exceedances of the $PM_{10}$ standard and can be released from dust generating activities or any unstabilized surface exposing residents to unhealthy levels of particulates. The property line standard can serve as a simple visual technique to monitor the dust released by the non-traditional fugitive dust source. The MCAQD intends to issue a Notice to Comply for the first violation of the property line standard at sites that are applying controls. The MCAQD will modify its enforcement policy to address this new requirement. The MCAQD will develop a policy/guideline and train compliance staff to ensure consistent enforcement of the property line standard. The MCAQD disagrees that there is no credible link between opacity and particulate matter emissions. In fact the next sentence in the EPA notice cited by the comment states, "Nonetheless, because there is at least an indirect relationship between opacity and PM emissions, including the use of opacity to track the effectiveness of PM control equipment operation …" The MCAQD's goal with this proposed change is to improve the monitoring of dust control measures by providing a simple visual tool that can be applied by employees as well as by the MCAQD to evaluate the effectiveness of the dust control measure. Even though the MCAQD cannot derive a quantitative correlation between opacity and PM emissions for a general rule, improving the consistency of compliance will reduce emissions and reduce the concentrations measured at the monitors. The MCAQD has access the Assessor's database and the inspectors carry GPS units and would be able to use those devices if necessary. However, the inspector only has to determine that emissions coming from the permitted site are present at a point that is beyond the property line. Once the inspector determines that the visible emission is generated from the permitted site and the visible emission reaches a point clearly beyond the property line (e.g. a nearby public road), described and documented by the inspector, then the exact location of the property line is moot. The MCAQD disagrees with the comment to restrict the property line standard to just fugitive dust, as fugitive dust can contain other particles deposited on the site surface as well as dust.

**Comment #208:**

What is a "virtual posting"? If this item refers to the internet website, perhaps a mention of a web address or URL should be included here.

**Response #208:**

Virtual posting refers to the maps displayed online by a government, typically with large land holdings, that indicate designated travel routes. For example, federal agencies such as BLM and the Forest Service are required to develop transportation management plans that specifically designate

open travel routes where vehicles can operate. Further, vehicle operators accessing those lands on the designated travel routes are responsible for knowing where they are allowed to drive. Currently, each agency maintains its own website.

**Comment #209:**

The opening paragraph of this section should be reworded as follows: “Prevent motor vehicle and/or off-road vehicle trespassing, parking, and/or access by posting that consists of one of the following:” Furthermore, APS and SRP request further clarification on how the items specified in paragraphs b, c, and d of this section would be used to prevent trespassing, parking, and access to restricted areas.

**Response #209:**

Rule 310.01, Sections 302.4(b)(2)(b), (c), and (d) provide the vehicle operator several options to become informed of land use. The vehicle operator can look for a sign on the property posting the land open. The vehicle operator can look for an order, map, or virtual posting from a government land management agency or can obtain written permission from a private land owner. The vehicle operator will also have access to a forthcoming website about land availability for vehicle use. The responsibility for this website, data sharing, access and maintenance requirements still need to be defined.

**Comment #210:**

Suggest MCAQD adopt the following language. "Notify motor vehicle and/or off-road vehicle operators of trespassing, parking and/or access requirements by posting that consists of one of the following:". Signs merely notify; only physical actions can prevent access.

**Response #210:**

Knowledge of permission or lack of permission provides information the vehicle operator may use to make an informed decision regarding where to operate the vehicle and may prevent vehicular access.

**Comment #211:**

APS and SRP recommend that this requirement be removed because this activity is already exempted under Section 103.5 of this rule.

**Response #211:**

This provision is not new and is not being revised in this rulemaking. Rule 310.01, Section 302.4(c)(6) is more specific than Rule 310.01, Section 103.5 and clarifies the application of that exemption to vehicle use in open areas and vacant lots.

**Comment #212:**

Suggest the time interval for the land owner and/or operator be triggered from the point of notification by MCAQD rather than discovery. Such a change would be in keeping with other regulatory notification practices adopted throughout the state.

**Response #212:**

The time interval in these provisions is already in the SIP and is not being revised in this rulemaking.

**Comment #213:**

Must the approval and subsequent implementation of an alternative control measure require both the Control Officer and the Administrator? Surely MCAQD could evaluate such a request.

**Response #213:**

Without Administrator approval, the section would grant the Control Officer discretion. The Control Officer's discretion is grounds for disapproval by EPA.

**Comment #214:**

Comments recommend that the wording of this section be revised because it implies that a source must meet all the requirements of Sections 302.5(b) of this rule. The following revision is suggested: "The owner and/or operator of a non-traditional source of fugitive dust that involves open areas and vacant lots shall be subject to the visible emissions requirements described in Section 302.5(a) of this rule and, unless otherwise specified and/or required, shall comply with at least one of the control measures described in Section 302.5(b) of this rule and the additional requirements described in Section 302.5(c) of this rule."

**Response #214:**

The MCAQD has revised the provision.

**Comment #215:**

It is unclear if Easements and Rights-of-Way would be considered an Open Area. If yes, it would be difficult to establish vegetative ground cover on all disturbed surface areas. The ROW is periodically driven via motor vehicles for maintenance activities.

**Response #215:**

Easements and right-of-ways are not and have not been considered open areas and vacant lots. These accesses are specifically identified as subject to Section 302.10 that is titled, "Easements, Rights-of-Way, and Access Roads for Utilities (Transmission of Electricity, Natural Gas, Oil, Eater, and Gas)".

**Comment #216:**

Is there a definition of "unoccupied"? As mentioned in above paragraphs, suggest the land owner/operator schedule for corrective actions be triggered from the point of written notification by MCAQD and not from the point of initial discovery in the field.

**Response #216:**

The dictionary definition will be applied. See the response to comment #212.

**Comment #217:**

Will compliance determinations conducted by the land owner/operator in accordance with Section 501 be acceptable to MCAQD or will compliance determinations be the sole provenance of MCAQD?

**Response #217:**

As with any other rule, the MCAQD evaluates compliance at the time of inspection. The due diligence efforts to maintain compliance by a land owner/operator may be presented to the MCAQD, but do not supersede an inspector's findings at the time of inspection.

**Comment #218:**

Suggest "prevent" be replaced with "minimizes" in Rule 310.01, Section 302.6(b)(2). It will be physically impossible to prevent trackout in total; there will always be some dust on the road. The term prevention implies there will be absolutely no trackout on the road and is thus an unreasonable condition.

**Response #218:**

Rule 310.01, Section 302.6(b)(2) requires the elimination of trackout. The MCAQD requires that every effort be made to prevent as much trackout as possible. The MCAQD has not changed the provision.

**Comment #219:**

This language in Section 302.6(b)(3) appears to be duplicative. Maintenance of the trackout device is called out in 302.6(b)(2)

**Response #219:**

Surface gravel listed in this section is not the same thing as a gravel pad, which would be a type of trackout control device. Surface gravel referred to here implies the use of gravel as a material used to cover all disturbed areas of an unpaved parking lot. In this way, this section is a unique control measure from the others listed in section 302.6(b).

**Comment #220:**

This language in Section 302.6(b)(4) appears to be duplicative of 302.6(b)(2)

**Response #220:**

This section concerns the combined use of water and a trackout control device, whereas section 302.6(b)(2) considers the combined use of a dust suppressant other than water with a trackout control device.

**Comment #221:**

The same comment provided under Rule 3 10, Section 306.2(a)(1) applies here. The proposed revisions include a 50 percent reduction in the amount of trackout allowed at a site. As such, MCAQD should provide a more reasonable amount of time to clean up trackout, carry-out, or spillage. In some cases, it is impossible to clean up an area immediately after the cumulative trackout extends more than 25 linear feet due to safety issues, particularly if the trackout is on roads accessible to the public. It may not be possible to divert traffic while the trackout is being cleaned up. If traffic cannot be diverted, employees who are trying to clean up are at significant risk. Furthermore, it was communicated in stakeholder meetings that the enforcement of the current trackout requirement is dependent on the inspector. Some inspectors provide a reasonable amount of time for cleanup, and some provide no leeway based on the requirement that it be cleaned up "immediately." In order to ensure fair and equitable treatment of all sources, MCAQD should provide a specific amount of time in the rule for cleanup that is more reasonable than "immediately."

**Response #221:**

The MCAQD trains its inspectors on trackout enforcement to ensure fair and equitable treatment. In the MCAQD's experience, trackout builds up over time and the individual who can take action has a

duty to monitor it and should be aware cleanup will soon be needed. The MCAQD inspectors place more importance on taking action to initiate cleanup of trackout than they do on counting minutes. No matter what time is selected, the MCAQD and owner/operators would still discuss grace periods. MCAQD does not believe the differences between inspectors are as significant as portrayed based on the reports prepared when Notices Of Violations are referred for escalated enforcement. If a permittee believes that they have been treated unfairly, they may contact a supervisor or other department management.

**Comment #222:**

Suggest "developments" be replaced with "construction sites" in Section 302.6(c)(4). Suggest that "dustproof" be stricken.

**Response #222:**

Rule 310.01 does not apply to construction sites. The test in Section 302.6(c)(4) is consistent with SB1552.

**Comment #223:**

Why was 3,000 square feet selected in Section 302.6(c)(5)? Why not use 0.10 acre as a threshold? Why is the "county" explicitly mentioned here? Could a Dust Control permit similar to a block permit be implemented here?

**Response #223:**

This section was created to be consistent with language passed in SB 1552. Rule 310.01 does not apply to permitted sources.

**Comment #224**

With respect to the 150 vehicle trips/day threshold, is it MCAQD's expectation that the land owner/operator would be responsible for developing a traffic count plan for all roads that fall within this requirement? Suggest here there be an implementation schedule for this type of traffic analysis and control measure implementation.

**Response #224:**

The owner/operator of a unpaved roadway has always been responsible for determining when provisions of this rule section apply to them, including traffic counts. The revisions to this section clarify who is responsible for conducting the traffic counts.

**Comment #225:**

Rule 310.01, Section 302.7(a) appears to have a mislaid dependent clause.

**Response #225:**

The MCAQD has removed the words "a non-traditional sources of fugitive dust that involves" from the first sentence in Rule 310.01, Section 302.7(a).

**Comment #226:**

Comments believe it is important that Rule 310.01, Section 302.7 account for the possibility of trespassers on unpaved haul and access roads. The limit on vehicle trips and vehicle speeds should be

for authorized traffic. It is critical that the owner/operator not be penalized for illegal trespassing that occurs on its site. In addition, comments seek clarification on the terminology used in Section 302.7(c)(2). This section requires that the "average vehicle counts/traffic counts on the highest trafficked days" be recorded and reported to the Control Officer. How is a company to choose which days would be the "highest trafficked days" and what are the repercussions if a day is found to have more traffic than what was recorded and reported? Furthermore, please fix the section reference in Section 302.7(c)(3)(a) so that it is "Section 501" rather than "Section 302.8(a)".

**Response #226:**

See the response to comment #186 for a discussion of trespass. The term “highest trafficked days” was chosen in recognition of the fact that unpaved roads defined in Rule 310.01, Section 231 connect multiple properties and may have different use patterns depending on the destinations along a particular road. For example, a road providing access to recreational areas will bear more traffic on weekends and holidays. Other roads providing access to residential, industrial, or commercial destinations usually bear more traffic on weekdays. The owner/operator should base the selection of an appropriate time period on the traffic patterns on the particular road in question. The owner/operator also has a responsibility to be aware of when traffic patterns change on the unpaved road. Usually this change accompanies additional development nearby. The reference in Section 302.7(c)(3)(a) has been corrected.

**Comment #227:**

MCAQD’s proposed Rule 310.01 would relax the regulation of fugitive dust emissions from County-owned unpaved roads, compared to the current air quality requirements for County-owned unpaved roads (Rule 310.01, Section 304) that have been in effect for several years and already are part of the State Implementation Plan (SIP). This unusual proposal to reduce the existing level of fugitive dust regulation for County-owned property stands in contrast to MCAQD’s efforts to increase the regulation of almost every other type of activity that emits fugitive dust within Maricopa County. The proposed rule provisions that relax the SIP provisions that apply to County-owned unpaved roads are summarized in the following table. [NOTE: See reference table in original letter.] The change in the proposed rule would be an impermissible relaxation of the SIP. Moreover, the concept of decreasing regulation of County-owned sources of fugitive dust while increasing the regulation of so many other categories of emitters is inequitable and illogical.

**Response #227:**

As noted earlier, the commenter confuses roads associated with conducting business that generates emissions and business conducting business that generates emissions the conduct of business that operates equipment and/or activities generating emissions, whether private or governmental, with roads managed and operated by government on behalf of the general public to provide access to multiple properties where the public generates the emissions. This provision does increase regulation of the public unpaved roads. It specifies a minimum number of miles to be paved each year. The

legislature has not provided counties and municipalities lacking home rule with the authority to prevent the formation of some new unpaved roads. The formation of new unpaved roads through lot splits, wildcat subdivisions, or businesses exempt from planning and zoning requirements result in ever changing impacts that increase traffic on outlying roads in the existing public highway network. As a result traffic increases and additional unpaved roads are identified, evaluated and placed in transportation improvement plans. The legal authority governing public highways differs between government conducting business that generates emissions and business conducting business that generates emissions. This comment confuses roads associated with conducting business, which operates equipment and/or activities generating emissions, whether private or governmental, with roads managed and operated by government on behalf of the general public to provide access to multiple properties where the public generates the emissions.

**Comment #228:**

This language suggests that water cannot be applied as a dust suppressant; given certain soil types, water application alone can yield very effective dust control. To eliminate water in favor of another dust suppression techniques without determining whether it works seems questionable. Restriction of travel, speed limit enforcement, and rerouting traffic and be other control measures that could be included in this list.

**Response #228:**

The roadways subject to this provision are not temporary. MCAQD maintains that unpaved roadways that are subject to this provision cannot be adequately controlled with water alone, and another control measure is necessary to ensure stabilization occurs over the repeated and consistent vehicle traffic on these roads. The control measures listed in the section are consistent with the control measures for unpaved roads in the federal implementation plan EPA promulgated for the Maricopa County PM10 Nonattainment Area. The list of control measures is not being revised at this time.

**Comment #229:**

Suggest the design, implementation of traffic studies be conducted upon notification by MCAQD for reasons mentioned above. Rule 310.01, Section 302.7(c)(2) could be split into two sub-paragraphs for ease of readability.

**Response #229:**

See the response to comment #224. The MCAQD maintains that it is the responsibility of the owner/operator of all unpaved roadways to determine traffic counts upon that roadway

**Comment #230:**

Comment does not believe that separate traffic counts should be required, as the cost is double that of doing one 48 hour count. We understand the purpose of averaging to avoid a single event skewing the results. We recommend either of the following 2 alternatives in lieu of the existing language:

1. The language from this portion of Rule 242: "a. Each traffic count shall measure vehicular traffic over a 48-hour period, which may consist of two non-consecutive 24-hour periods. Vehicular traffic

shall be measured continuously during each 24-hour period. b. The two distinct 24-hour traffic counts shall be conducted on two non-holiday weekdays - adding the phrase "and may include one or two weekend days at the request of the Control Officer."

2. Alternatively: "A person, who owns and/or is responsible for an unpaved road (including an alley) believed to carry 150 or more vehicle trips per day in the $PM_{10}$ nonattainment area, shall be responsible for conducting vehicle counts to determine if 150 or more vehicle trips per day occur on said unpaved roadway (including an alley). At least 48 hours of traffic shall be counted. At the Control Officer's request, some or all of the count may be required on weekend days. The average vehicle counts on the highest trafficked continuous 24 hour periods shall be recorded and provided to the Control Officer in writing 60 days of verbal or written request by the Control Officer."

**Response #230:**

To address the commenter's concerns, Rule 310.01, Section 302.7(c)(2) has been revised to read, " A person, who allows 150 vehicle trips or more per day on an unpaved roadway (including an alley) in the $PM_{10}$ nonattainment area, shall be responsible for conducting vehicle counts/traffic counts to determine if 150 vehicle trips or more per day occur on an unpaved roadway (including an alley). A traffic count shall measure vehicular traffic over a 48-hour period, which may consist of two non-consecutive 24-hour periods. Vehicular traffic shall be measured continuously during each 24-hour period. The average vehicle counts/traffic counts on the highest trafficked days shall be recorded and provided to the Control Officer in writing within 60 days of verbal or written request by the Control Officer."

**Comment #231:**

Similar comments regarding the prohibition of water use in favor of other dust suppressants. Water should be shown as ineffective before a potentially more expensive dust control technology is implemented.

**Response #231:**

The MCAQD lists a variety of control measures in this section to give the site flexibility in controlling visible emissions. For some of the control measures in this section, water is shown to have limited effectiveness. This section also allows the site to make their own cost/benefit decisions regarding which control measures to implement.

**Comment #232:**

Livestock owners currently perform control measure 'c' when hauling animal waste. Livestock owners cannot perform control measure 'c' when hauling or transporting bulk feed for livestock; it is not feasible to cover feed with tarps when dispensing to livestock.

**Response #232:**

The intent of this control measure is to prohibit bulk feed or animal waste from exiting haul trucks onto areas accessible to the public. If the haul truck will not cross an area accessible to the public (as is often the case when feeding animals) then tarping is not required. However, if the haul truck does

cross onto an area accessible to the public, the MCAQD maintains that tarping is a reasonable and prudent measure.

**Comment #233:**

Suggest that "leave" be substituted for "traverse".

**Response #233:**

MCAQD maintains the current language of this section best describes the intent of the section as it includes crossing a paved area accessible to the public.

**Comment #234:**

It is impractical and cost prohibitive for the owner and/or operator of a feedlot and/or livestock area, to implement any one of the control measures described in Section 309.2 (Section 302.8(b), as 309.2 does not exist) of this rule. The control measures in this rule should be replaced with affordable and practical measures that the owner/operator could feasible do without being a detriment to the operation of the animals.

**Response #234:**

Most of the measures listed are found in the existing rule. The MCAQD did research conservation best management practices applied to similar livestock activities in California and added several additional options to provide additional flexibility. The MCAQD believes the control measures in this section are necessary, prudent, and feasible. The MCAQD understands that there may be costs associated with these measures, but given the severity of the PM10 pollution problem, the control measures are a integral part of reducing PM10 emissions from significant sources.

**Comment #235:**

It is not a feasible measure to apply surface gravel to a feedlot and/or livestock areas (302.8(b)(1)—(2)). Manure, once removed from animal operations, is often used as a field crop additive and nutrient. Manure containing gravel cannot be used as a field nutrient. Manure from feedlots and/or livestock areas, can be converted to a green energy in anaerobic digesters, (currently being implemented in Maricopa County). Manure containing gravel cannot be used in this technology. In addition, gravel is uncomfortable and possibly dangerous for hoofed animals to stand on for extended periods of time.

**Response #235:**

The application of gravel is only one option and is intended for those areas that do not come in frequent contact with livestock (unpaved roads and lanes). The provisions of Sections 302.8(b)(1) and 302.8(b)(2) are not intended for areas such as corrals, pens or arenas where manure would accumulate and where livestock chiefly inhabit.

**Comment #236:**

If water is used as a dust suppressant at a feedlot and/or livestock area, it can cause a health concern for both the animals and residents who live nearby. A moist environment in feedlots and/or livestock area creates a fly and mosquito habitat. A damp environment can also harbor bacteria and mold. Wet manure also causes an odor concern to the local community. Manure has very little odor when dry.

Many feedlots and/or livestock areas are very large and occasionally built on leased land. It becomes impractical and cost-prohibitive to install enough trees, and shrubs to surround the animals on the property. Many dairies in Maricopa County are surrounded by fields (corn, alfalfa) which could be considered an existing control measure to reduce dust.

**Response #236:**

It is not uncommon for the owner/operator of a roping arena to choose water as a control measure. To address the commenter's concern regarding the limited number of control measures, the MCAQD is adding three additional control measure options for corrals, pens or arenas to Rule 310.01, Section 302.8(b)(4). The first control measure is frequent scraping and/or manure removal. The second measure is adding a fibrous layer in working areas. The third measure is applying and maintaining an alternative control measure approved in writing by the Control Officer and the Administrator. This allows a permit holder some flexibility in choosing which option is best for their facility.

**Comment #237:**

Suggest that "activity" be inserted after "dust" in Rule 310.01, Section 302.9.

**Response #237:**

Adding the word "activity" to Rule 310.01, Section 302.9, pertaining to water and wind erosion from property, does not add clarity.

**Comment #238:**

Suggest that "discovery and" be substituted for "identification or".

**Response #238:**

The MCAQD maintains the current language of this section best describes the intent of the section.

**Comment #239:**

Why were 130 vehicle trips selected instead of 150 vehicle trips identified in other areas of this rule? Other commenters request that the MCAQD revise this section so that it is consistent with the requirements for unpaved roadways (i.e., 150 vehicle trips or more per day in the PM10 nonattainment area). It is unclear why easements, rights-of-way, and access roads should have different requirements. By keeping the qualifiers consistent between unpaved roadways and easements, rights-of-way, and access roads, it will add clarity and eliminate confusion for sources affected by both sections.

**Response #239:**

The MCAQD will revise Section 302.10 to leave the 150 vehicle trips or more per day in the $PM_{10}$ nonattainment area in place.

**Comment #240:**

Commenters believe it is important that this section 302.10 account for the possibility of trespassers on easements, right-of-ways, and access roads for utilities. The limit on vehicle trips and vehicle speeds should be for authorized traffic. It is critical that the owner/operator not be penalized for illegal trespassing that occurs on its site.

**Response #240:**

See response to comment #186.

**Comment #241:**

The rule should also clarify, who determines if a non-traditional source of fugitive dust, has met the opacity limitation requirement.

**Response #241:**

The owner/operator of a non-traditional source of fugitive dust should ensure that the opacity standard has been met; however, the MCAQD evaluates compliance at the time of inspection. The due-diligence efforts to maintain compliance by an owner/operator may be presented to the MCAQD but do not supersede an inspector's findings at the time of inspection.

**Comment #242:**

APS and SRP agree with the concerns regarding the legality of this change to the existing rule as stated in a letter from Mr. Roger Ferland, on behalf of the Business Coalition, to Mr. Robert Kard dated August 10, 2007. A copy of this letter has been attached for your convenience. "Under Method 9, the opacity is determined as the average of 24 consecutive observations recorded at 15-second intervals. As such, the opacity determination is based on a 6-minute average of 24 observations. In Method 203B, the number of observations above the applicable standard are counted and multiplied by 0.25 to determine the number of minutes a source is above the opacity standard. In essence, the Method 203B calculation methodology eliminates the averaging effect of readings below the standard…Obviously a data reduction method that results in noncompliance is more stringent than one that does not. This increased stringency of the opacity limit rule is multiplied by the fact that your department has proposed to expand the applicability of Appendix C to include determining compliance with opacity limits applicable to point source emissions..." "Under the provisions of A.R.S. §49-112(A), the County may only adopt rules that are more stringent than those adopted by the Arizona Department Of Environmental Quality (ADEQ) if all conditions of [A.R.S. §49-112(A)] are met…The ADEQ regulations pertaining to the measurement of visible emissions from nonpoint sources (A.A.C R18-2-614) and point sources (A.A.C. R18-2-702(B)) rely solely upon EPA Test Method 9 and not Method 203B to determine compliance with opacity limits. Thus, the MCAQD's proposal to substitute Method 203B for Method 9 is subject to the requirements of A.R.S. §49-112(A)…" "To date we have seen nothing to suggest the MCAQD intends to provide the evidence or can provide the evidence necessary to meet the statutory requirements." It has been suggested that since the change in opacity test methods was bundled with a proposal for more stringent $PM_{10}$ regulations that the "peculiar local condition" referred to in the statute was somehow connected to $PM_{10}$. However, this cannot be the case. Visible emissions limits are intended to indicate the proper operation of particulate control technologies such as baghouses or dust suppression technologies. They are not intended to measure and cannot measure $PM_{10}$ emissions or the emissions of any other pollutant. For this reason, source category specific rules typically specify both an opacity limit and an emission limit…" "Since there is no coincidence between $PM_{10}$ emissions and opacity, there is no reason to believe that a more stringent opacity limit,

particularly one of the kind at issue here, would result in lower $PM_{10}$ (or any other) emissions…" "Either the MCAQD must make the showings and provide the evidence required by statute (which we judge to be unlikely) or the proposal should be immediately withdrawn…"

**Response #242:**

The revision to the data reduction methodology associated with Maricopa County's general 20% opacity standard to EPA Method 203B is intended to further efforts to increase compliance. This form of data reduction for the 20% opacity standard limits the number of excursions over the 20% level of the standard resulting in more consistent compliance with the existing standard. A rule effectiveness study conducted 2006 through 2007 by MCAQD found that compliance with the existing rules is lower than anticipated. The commenter also states that the proposed revisions to the data reduction methodology make the 20% opacity standard substantially more stringent that the current rule. The Department disagrees and believes that the comment overstates the stringency of Method 203B. The MCAQD has repeatedly asked for examples of changes or modifications that would be necessary to comply with the revision to Method 203B data reduction methodology throughout the informal and formal rulemaking process but has not received any additional information. Further, a 1983 study of opacity regulations by EPA found that 20 states, District of Columbia, Puerto Rico and 5 local agencies had time aggregating form of opacity regulation with the most frequent opacity limit noted as 20% opacity with a 3 minute/hour time exceedence. Further, if Method 203B was substantially more stringent than Method 9, then the Department would have been required to include the measure in the most stringent measure demonstration contained in the MAG Serious Area $PM_{10}$ Nonattainment Area Plan and Attainment Date Extension Request. The technical analysis associated with the Salt River Area PM10 SIP revision submitted in 2005 determined that stationary sources contribute significantly to exceedances of the 24-hour $PM_{10}$ standard that occur under stagnant conditions. That analysis characterized the specific types, number, and size of sources present in the modeling domain; land use; the topography of the area; and the design day specific meteorological conditions present at the monitor recording the exceedance. Attainment demonstrations for nonattainment areas required under the Clean Air Act must to the greatest extent practical depict the actual conditions present that cause exceedances in the nonattainment area. Therefore, the nonattainment area plans for the Phoenix Nonattainment Area for $PM_{10}$ are required under the Clean Air Act, in effect, to address actual local conditions that are unique to a geographical area. Further, EPA's latest particulate matter implementation rule, Clean Air Fine Particle Implementation Rule (72 FR 20586, April 25, 2007), identifies "revised opacity standard" in a list of possible stationary sources measures. The rule also lists improved monitoring as a control measure. EPA notes that improved monitoring control measures would require facilities to pay more attention to the operations of add-on air pollution control devices, work practices, and other control measure activities. The additional attention will reduce periods during which control devices and other control measures do no operate as intended or required. The result would be increased emissions reductions from implementing existing and new rules. The

MCAQD disagrees that there is no coincidence between $PM_{10}$ emissions and opacity. Within an individual source, a change in opacity indicates a change in PM emissions. It is not necessary to demonstrate a correlation between mass emissions and opacity across all source categories, when a goal of the standard is to demonstrate compliance with BACT, BACM, and MSM levels of control. Opacity has also long been used as an indicator of visible particulate pollution. In the discussion on improved monitoring control measures in the proposal for the fine particle implementation rule referenced above, EPA states, "…visible emissions and the opacity of visible emissions are indicators of a change in PM emissions levels…" In EPA's fact sheet on the rule finalizing Methods 203A, B, and C, EPA states, "Evaluating the opacity of emissions serves as a surrogate for particulate emissions. Numerous state and federal regulations require that opacity of emissions be measured or monitored." In EPA's Response to Comments on the Portland Cement Manufacturing NESHAP (page 227), EPA states, "An opacity limit was established to ensure effective PM control, but opacity is a separately enforced pollutant …" In other NESHAPs, where EPA uses PM as a surrogate for HAPs, EPA consistently states that opacity limits are separately enforceable emissions limits which represent and demonstrate continuous compliance with the MACT floor of particulate HAP control.

**Comment #243:**

Suggest the term "Fugitive Dust From Open Area Sources" be substituted instead of "Fugitive Dust from Non-Traditional Sources of Fugitive Dust".

**Response #243:**

MCAQD does not believe that suggestion includes all sources that listed under non-traditional sources of Fugitive dust.

**Comment #244:**

Define the term "immediately". This term needs a reasonable timeframe and consistency in Draft Rule 300, 310, and 310.01.

**Response #244:**

See the response to comment #221

**Comment #245:**

Please advise if agricultural farmers are included in dust control rules.

**Response #245:**

Normal farm cultural practices are not regulated by this rule. However livestock activities are regulated by Rule 310.01.

**Comment #246:**

I have been on 5-150 horse trail rides and they don't stir up any dust, ATV ATV's, dirt bikes and quads stir up significantly more dust than horses on trails. Please don't change Rule 310.01. Why not enforce what we have instead of more rules. Why target us? Focus penalty on vehicles rather than horse activities.

**Response #246:**

Rule 310.01 does not apply to activities on horse trails, as exempted in Section 103.8 of the Rule. However, horse arenas are subject to the provisions of Rule 310.01 that apply to livestock activities.

**Comment #247:**

Since the results of using EPA Reference Method 203B and the Appendix C method for assessing opacity can be quite different, explain why the less stringent Appendix C method is used at all. The County cannot have requirements that are less stringent than those of the EPA. Take out and replace all references to Appendix C.

**Response #247:**

The opacity methods approved in Appendix C were modified specifically to address the listed activities and are more appropriate for evaluating those dust plumes than Method 203B. Neither EPA Reference Method 203B nor Appendix C methods are less stringent than the other.

**Comment #248**

There are not classes offered to agricultural producers or livestock owners to become qualified in EPA Reference Method 9, which includes determining black and white smoke opacity. Therefore producers should not be required to comply with a standard for which no training is available. For example a Maricopa County 4-H member (age 9-18) who is raising goats or a community member who keeps horses would be totally unfamiliar with this standard.

**Response #248:**

At least two training providers in Maricopa County offer EPA Method 9 Visible Emissions Observation Certification Training to anyone required to complete periodic visible emissions observations: The ASU Environmental Technology Management (ETM) program offers EPA Method 9 Certification training. Information on the ETM training can be found at http://www.azdeq.gov/environ/air/compliance/smoke.html or by calling (480) 727-1322 . In addition, Arizona Smoke School offers Method 9 training. Information on Arizona Smoke School can be found at http://www.arizonasmokeschool.com/ or by calling (480) 226-0945.

**Comment #249:**

The last time we sent comments for a hearing with the Board Of Supervisors; our comments were glossed over and not taken seriously. We hope that will not be the case this time.

**Response #249:**

The most recent time that the MCAQD responded to formal comments regarding fugitive dust was during the rulemaking process for Rule 316-Nonmetallic Mineral Processing. All formal comments received during such rulemaking were responded to in the Notice of Final Rulemaking (11 A.A.R. 2799, July 29, 2005), which was distributed via email to all stakeholders, was posted on the MCAQD's webpage, and was distributed to the Maricopa County Board Of Supervisors for their review and consideration prior to adoption.

**Comment #250:**

If the EPA wants BACM and MSM implemented in this Plan, why do non-title V Permits only address BACT, if at all?

**Response #250:**

To address the BACM and MSM requirements, existing rules were revised and a new source specific rule adopted for specific source categories such as Rules 316 and 325. The Non-Title V permits for those types of sources must incorporate those BACM and MSM rule provisions in their permits and dust control plans as specified by the respective rule. Permitting BACT analyses are only performed for new and modified sources, but rule provisions apply to the specified sources including both new and existing sources.

**14. Any other matters prescribed by the statute that are applicable to the specific department or to any specific rule or class of rules:**

No

**15. Incorporation by reference and their location in the rules:**

| Incorporation By Reference | Location |
|---|---|
| ASTM Method C136-06 | Rule 310, Section 223 |
| | Rule 310, Section 504.1 |
| ASTM Method D2216-05 | Rule 310, Section 303.2(a)(1)(a)(iii) |
| | Rule 310, Section 305.5(b)(2) |
| | Rule 310, Section 305.11(b)(2) |
| | Rule 310, Section 504.2 |
| ASTM Method D1557-02e1 | Rule 310, Section 303.2(a)(1)(a)(iii) |
| | Rule 310, Section 305.5(b)(2) |
| | Rule 310, Section 305.11(b)(2) |
| | Rule 310, Section 504.3 |
| Appendix C-Fugitive Dust Test Methods | Rule 310, Section 303.2(c) |
| | Rule 310, Section 304.3 |
| | Rule 310, Section 304.4 |
| | Rule 310, Section 501.1 |
| | Rule 310, Section 501.2 |
| | Rule 310.01, Section 501.1(b) |
| | Rule 310.01, Section 501.2 |
| | Rule 310.01, Section 501.3 |
| EPA Reference Method 203B | Rule 310.01, Section 501.1(a) |

**16. Was this rule previously an emergency rule?**

No

**17. The full text of the rules follows:**

**REGULATION II - PERMITS AND FEES**

**RULE 200**

**PERMIT REQUIREMENTS**

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**Revised 07/13/88**
**Repealed and Adopted 11/15/93**
**Revised 02/15/95**
**Revised 06/19/96**
**Revised 05/20/98**
**Revised 08/22/01**

# MARICOPA COUNTY
# AIR POLLUTION CONTROL REGULATIONS
# REGULATION II – PERMITS AND FEES
# RULE 200
# PERMIT REQUIREMENTS

## SECTION 100 – GENERAL

**101** **PURPOSE:** To provide an orderly procedure for the review of new sources of air pollution and for the modification and operation of existing sources through the issuance of permits.

## SECTION 200 – DEFINITIONS (NOT APPLICABLE)

See Rule 100 (General Provisions And Definitions) of these rules for definitions of terms that are used but not specifically defined in this rule.

## SECTION 300 – STANDARDS

**301** **PERMITS REQUIRED**: Except as otherwise provided in these rules, no person shall commence construction of, operate, or make a modification to any source subject to regulation under ~~this rule~~ these rules, without first obtaining a permit or permit revision from the Control Officer. The Maricopa County Air Quality Department issues the following permits: Title V permits, Non-Title V permits, General permits, Dust Control permits, and Permits To Burn. The standards and/or requirements for these permits are described in Section 302 thru Section 305 and Section 307 of this rule. Additional standards, administrative requirements, and monitoring and records requirements for some of these permits are described in individual rules of these rules, as applicable/as specified in Section 302 thru Section 305 and Section 307 of this rule.

**302** **TITLE V PERMIT**: A Title V permit or, in the case of an existing permitted source, a permit revision shall be required for a person to commence construction of, to operate, or to modify any of the following:

**302.1** Any major source as defined in Rule 100 of these rules.

**302.2** Any solid waste incineration unit required to obtain a permit pursuant to Section 129(e) of the Act.

**302.3** Any affected source as defined in Rule 100 of these rules.

**302.4** Any source in a source category designated by the Administrator pursuant to 40 CFR 70.3 and adopted by the Board of Supervisors by rule.

**303** **NON-TITLE V PERMIT:** Unless a Title V permit or a permit revision is required, a Non-Title V permit or permit revision shall be required for:

**303.1** A person to make a modification to a source which would cause it to emit or to have the potential to emit quantities of regulated air pollutants greater than those specified in subsections 303.2 and 303.3(c) of this rule.

**303.2** A person to commence construction of or to modify either of the following after rules adopted pursuant to A.R.S. § 49-480.04 are effective:

**a.** A source that emits or has the potential to emit with controls ten tons per year or more of a hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants designated by the Director pursuant to Rule 372 (Maricopa County Hazardous Air Pollutants (HAPs) Program) of these rules and not listed in Section 112(b) of the Act.

**b.** A source that is within a category designated by the Director pursuant to Rule 372 (Maricopa County Hazardous Air Pollutants (HAPs) Program) of these rules and that emits or has the potential to emit with controls at least one ton, but less than ten tons per year of a hazardous air pollutant or at least 2.5 tons, but less than 25 tons per year of any combination of hazardous air pollutants.

**303.3** A person to commence construction of, to operate, or to modify any of the following:

**a.** Any source other than a major source, including an area source, subject to a standard, limitation, or other requirement under Section 111 of the Act.

**b.** Any source other than a major source, including an area source, subject to a standard or other requirement pursuant to Section 112 of the Act. However, a source is not required to obtain a permit solely because it is subject to regulation or requirements pursuant to Section 112(r) of the Act.

**c.** Any source that emits or has the potential to emit, without control, regulated air pollutants, except the following sources to the extent which the described limits are not exceeded. However, any source that is exempt from obtaining a Non-Title V permit according to this section shall still comply with all other applicable requirements of these rules.

**(1) General Combustion Equipment:**

**(a)** Any source with an aggregated input capacity of less than 2,000,000 BTU per hour calculated by adding only those pieces of equipment over 300,000 BTU per hour with respect to fuel burning equipment fired with natural gas or liquefied petroleum gas.

**(b)** Any oil fueled heating equipment with a maximum rated input capacity or an aggregated input capacity of less than 500,000 BTU (527,200 kilojoules) per hour.

**(2) Liquid Storage Tanks:**

**(a)** Stationary storage tanks with a capacity of 250 gallons (946 liters) or less used for storing organic liquids.

**(b)** Stationary storage tanks used for storing organic liquids with a true vapor pressure of 1.5 psia (77.5 mm Hg) or less.

**(c)** Pressure tanks and pressurized vessels used exclusively for the storage of liquefied gases.

**(3) Surface Coating And Printing Equipment:**

**(a)** The aggregate of all surface coating operations of a source in which no coated product is heat cured and a combined total of one gallon per day or less of all coating materials and solvents are used.

**(b)** Application equipment for architectural surface coatings is used for commercial and residential applications.

**(c)** Any coating operation, which employs only hand-held aerosol cans, where VOC emissions do not exceed three pounds on any single day.

**(d)** Any printing operation which employs a combination of printing presses with a maximum of 500 square inches (3226 $cm^2$) of impression area and a maximum of two units per printing press. For the purposes of this rule, "units" means the number of printing surfaces.

**(4) Solvent Cleaning Equipment:** Unheated, non-conveyorized, cleaning or coating equipment that does not include control enclosures:

**(a)** With an open surface area of one square meter (10.8 square feet) or less and an internal volume of 350 liters (92.5 gallons) or less, having an organic solvent loss of three gallons per day or less, or

**(b)** Using only organic solvents with an initial boiling point of 302°F (150°C) or greater and having an organic solvent loss of three gallons per day or less, or

**(c)** Using materials with a VOC content of two percent or less by volume (20 cubic centimeters per liter).

**(5) Internal Combustion Equipment:**

**(a)** Internal combustion engines with a manufacturer's maximum continuous rating of 50 horsepower or less or a maximum accumulative rating of 250 horsepower or less for engines used in the same process at one source.

**(b)** Internal combustion engines used solely as a source of unlimited standby power or emergency purposes and operated at or below 500 hours per year for routine testing and emergency standby operation for each internal combustion engine and provided such source demonstrates that the potential emissions at 500 hours of operation each of all internal combustion engines do not exceed 4,000 pounds of nitrogen oxides or carbon monoxide per year as evidenced by an installed hour meter or written usage records maintained by the operator; and

**(i)** Are only used for power when normal power line service fails; or

**(ii)** Are only used for the emergency pumping of water.

**(iii)** This exemption does not apply to internal combustion engines used as standby power due to a voluntary reduction in power by the power company.

**(c)** Engines used to propel motorized vehicles.

**(d)** Gas turbines with a maximum heat input at IS0 Standard Day Conditions of less than 3,000,000 BTU (3,162,000 kilojoules) per hour fired exclusively with natural gas and/or liquefied petroleum gas.

**(e)** Portable internal combustion engines used on a temporary basis of no more than 30 days per calendar year at any one facility.

**(6) Food Equipment:**

**(a)** Equipment, excluding boilers, used in eating establishments or other retail establishments for the purpose of preparing food for human consumption.

**(b)** Bakeries:

**(i)** Mixers and blenders used in bakeries where the products are edible and intended for human consumption.

**(ii)** Ovens at bakeries whose total production is less than 10,000 pounds (4,535 kg) per operating day.

**(7) Miscellaneous:**

**(a)** Diesel contaminated soil remediation projects, where no heat is applied.

**(b)** Self-contained, enclosed blast and shot peen equipment where the total internal volume of the blast section is 50 cubic feet or less and where any venting is done via pollution control equipment.

**(c)** Those laboratory acids which have both a pH above 1.5 and an aggregate daily emission to ambient air of vapor/mists from all such acids not exceeding three pounds on any single day.

**(d)** Brazing or welding equipment.

**(e)** Hand soldering equipment.

**(f)** A source whose aggregate of all wood working equipment totals 50 horsepower or less.

**(g)** Equipment used for buffing, carving, cutting, drilling, surface grinding, machining, planing, routing, sanding, sawing, shredding, or turning of ceramic artwork, precision parts, leather, metals, plastics, rubber, fiberboard, masonry, carbon, graphite or glass.

**(h)** Refrigerant recovery equipment.

**(i)** ~~Normal landscaping, building~~ Building maintenance or janitorial activities.

**(j)** A source whose aggregate of all miscellaneous equipment, processes or production lines not otherwise identified in this section has total uncontrolled emissions of less than three pounds (1.4 kg) VOC or $PM_{10}$ during any day and less than 5.5 pounds (2.5 kg) of any other regulated air pollutant during any day.

**(k)** A person to begin actual construction of a source subject to Rule 372 (Maricopa County Hazardous Air Pollutants (HAPs) Program) of these rules.

**(l)** A person to make a modification to a source subject to Rule 372 (Maricopa County Hazardous Air Pollutants (HAPs) Program) of these rules.

**304** **GENERAL PERMIT:** A General permit shall be required for a person to commence construction of, to operate, or to modify a source that is a member of a facility class for which a General permit has been developed pursuant to Rule 230 of these rules. The provisions of Rule 230 of these rules shall apply to General permits, except as otherwise provided in Rule 230 of these rules.

**305** ~~**EARTH MOVING PERMIT**~~ **DUST CONTROL PERMIT:** ~~No person shall cause, commence, suffer, allow, or engage in any earth moving operation that disturbs a total surface area of 0.10 acre or more. without first obtaining a permit from the Control Officer. This requirement for a permit shall apply to all such activities conducted for commercial, industrial, or institutional purposes or conducted by any governmental entity. The property owner, lessee, developer, or general/prime contractor will be responsible for acquiring the permit. Permits shall not be required for earth moving operations for emergency repair of utilities, paved roads, unpaved roads, shoulders, and/or alleys.~~ A Dust Control permit shall be required before a person, including but not limited to, the property owner, lessee, developer, responsible official, Dust Control permit applicant (who may also be the responsible party contracting to do the work), general contractor, prime contractor, supervisor, management company, or any person who owns, leases, operates, controls, or supervises a dust generating operation subject to the requirements of Rule 310 of these rules, causes, commences, suffers, allows, or engages in any dust generating operation that disturbs a total surface area of 0.10 acre (4,356 square feet) or more. The provisions of Rule 310 of these rules shall apply to Dust Control permits, except as otherwise provided in Rule 310 of these rules.

~~305.1~~ ~~Application: The applicant shall file an application, which includes an 8½" x 11" site map showing all linear dimensions, and shall submit a control plan as described in Rule 310 of these rules.~~

~~305.2~~ ~~Annual Block Permit: Any person responsible for more than one earth moving operation consisting of routine operation, maintenance, and expansion or extension of utilities, paved roads, unpaved roads, road shoulders and/or alleys, and public right of ways at non-contiguous sites may submit one permit application covering multiple sites at which construction will commence within 12 months of permit issuance provided that:~~

~~a.~~ ~~The control plan as described in Rule 310 of these rules applies to all sites; and~~

~~b.~~ ~~The applicant submits a list of all sites, including the location and size of each site, with the application; and~~

~~c.~~ ~~For any project not listed in the application, the applicant notifies the Control Officer in writing at least three working days prior to commencing the earth moving operation. The notice shall include the site location, size, type of activity, and start date.~~

~~305.3~~ ~~Action On Permit Application: The Control Officer shall take final action on an earth moving permit application within 14 calendar days of the filing of the completed application. The Control Officer shall notify the applicant in writing of his approval or denial.~~

~~305.4~~ ~~Permit Term: Earth Moving permits issued pursuant to this rule shall be issued for a period of one year from the date of issuance.~~

~~305.5~~ ~~Permit Renewal: Earth Moving permits shall be renewed annually should the project last longer than one year from the date the permit was issued. Applications for permit renewal shall be submitted to the Control Officer at least 14 calendar days prior to the expiration date of the original permit.~~

**306 SUBCONTRACTOR REGISTRATION:**

**306.1** A subcontractor who is engaged in dust generating operations at a site that is subject to a permit that is issued by a Control Officer and that requires control of $PM_{10}$ emissions from dust generating operations shall register with the Control Officer by submitting information in the manner prescribed by the Control Officer. The Control Officer shall issue a registration number after payment of the fee. The Control Officer may establish and assess a fee for the registration based on the total cost of processing the registration and issuance of a registration number.

**306.2** The subcontractor shall have its registration number readily accessible on-site while conducting any dust generating operations. The subcontractor's registration number must be visible and readable by the public without having to be asked by the public (e.g., included/posted in a sign that is visible on the subcontractor's vehicle or equipment, included/posted on a sign that is visible in the window of the subcontractor's vehicle or equipment, or included/posted on a sign where the subcontractor is working on the site).

~~306~~**307** **PERMIT TO BURN**: A permit is required for any open outdoor fire authorized under the exceptions in A.R.S. 49–501 or Rule 314 of these rules.

~~307~~**308** **EXEMPTIONS**: Notwithstanding Sections 301, 302, and 303 of this rule, the following sources shall not require a permit, unless the source is a major source, or unless operation without a permit would result in a violation of the Act:

~~307.1~~**308.1** Sources subject to 40 CFR 60, Subpart AAA, Standards of Performance for New Residential Wood Heaters.

~~307.2~~**308.2** Sources and source categories that would be required to obtain a permit solely because they are subject to 40 CFR 61.145.

~~307.3~~**308.3** Agricultural equipment used in normal farm operations. Agricultural equipment used in normal farm operations, for the purposes of this rule, does not include equipment that would be classified as a source that would require a permit under Title V of the Act, or would be subject to a standard under 40 CFR parts 60 or 61.

~~308~~**309** **STANDARDS FOR APPLICATIONS:** All permit applications shall be filed in the manner and form prescribed by the Control Officer. The application shall contain all the information necessary to enable the Control Officer to make the determination to grant or to deny a permit or permit revision, which shall contain such terms and conditions as the Control Officer deems necessary to assure a source's compliance with the requirements of these rules. The issuance of any permit or permit revision shall not relieve the owner or operator from compliance with any Federal laws, Arizona laws, or these rules, nor does any other law, regulation or permit relieve the owner or operator from obtaining a permit or permit revision required under these rules.

~~308.1~~**309.1** Insignificant Activities:

**a.** Rather than supplying detailed information, a Title V source may, in its permit application, list and generally group insignificant activities, which are defined in

Rule 100-General Provisions And Definitions of these rules and which are listed in Appendix D-List Of Insignificant Activities of these rules.

**b.** A Non-Title V source is not required to list nor to describe, in a permit application, insignificant activities, which are defined in Rule 100-General Provisions And Definitions of these rules and which are listed in Appendix D-List Of Insignificant Activities of these rules. If a Non-Title V source's emissions are approaching an applicable requirement, including but not limited to best available control technology (BACT) requirements or major source status, then such Non-Title V source may be required by Maricopa County to include, in a permit application, a description of its insignificant activities and emissions calculations for such insignificant activities.

**c.** An activity, process, or emissions unit that is not included in Appendix D-List Of Insignificant Activities of these rules may be considered an insignificant activity if it meets the definition of insignificant activity in Rule 100-General Provisions And Definitions of these rules and is approved by the Control Officer and the Administrator of the Environmental Protection Agency (EPA). A source may request approval for the classification of an activity as insignificant by including such a request in its permit application, along with justification that such activity meets the definition of insignificant activity in Rule 100-General Provisions And Definitions of these rules.

**d.** An application may not omit information regarding insignificant activities that is needed to determine: (1) the applicability of or to impose any applicable requirement; (2) whether the source is in compliance with applicable requirements; or (3) the fee amount required under these rules. In such cases, emissions calculations or other necessary information shall be included in the application.

~~308.2~~**309.2** **Trivial Activities:**

**a.** A Title V source is not required, in a permit application, to list trivial activities, to describe trivial activities, nor to include the emissions from trivial activities, which are defined in Rule 100-General Provisions And Definitions of these rules and which are listed in Appendix E-List Of Trivial Activities of these rules.

**b.** A Non-Title V source is not required, in a permit application, to list trivial activities, to describe trivial activities, nor to include the emissions from trivial activities, which are defined in Rule 100-General Provisions And Definitions of these rules and which are listed in Appendix E-List Of Trivial Activities of these rules.

**c.** An activity that is not included in Appendix E-List Of Trivial Activities of these rules may be considered a trivial activity, if such activity meets the definition of trivial activity in Rule 100-General Provisions And Definitions of these rules.

~~309~~**310** **PERMIT CONDITIONS:** The Control Officer may impose any permit conditions that are necessary to ensure compliance with Federal laws, Arizona laws, or these rules.

~~309.1~~**310.1** The Control Officer may require, as specified in ~~subsection 309.2 and subsection 309.3~~ Section 310.2 and Section 310.3 of this rule, any source of regulated air pollutants to monitor, sample, or perform other studies to quantify emissions of regulated air pollutants or levels of air pollution that may reasonably be attributable to that source, if the Control Officer:

**a.** Determines that monitoring, sampling, or other studies are necessary to determine the effects of the source on levels of air pollution; or

**b.** Has reasonable cause to believe a violation of this rule, rules adopted pursuant to this rule, or a permit issued pursuant to this rule has been committed; or

**c.** Determines that those studies or data are necessary to accomplish the purposes of this rule and that the monitoring, sampling, or other studies by the source are necessary in order to assess the impact of the source on the emission of regulated air contaminants.

~~309.2~~**310.2** The Control Officer may require a source of air contaminants, by permit or order, to perform monitoring, sampling, or other quantification of its emissions or air pollution that may reasonably be attributed to such a source. Before requiring such monitoring, sampling, or other quantification by permit or order, the Control Officer shall consider the relative cost and accuracy of any alternatives which may be reasonable under the circumstances such as emission factors, modeling, mass balance analyses, or emissions projections. The Control Officer may require such monitoring, sampling, or other quantification by permit or order if the Control Officer determines in writing that all of the following conditions are met:

**a.** The actual or potential emissions of air pollution may adversely affect public health or the environment.

**b.** An adequate scientific basis for the monitoring, sampling, or quantification method exists.

**c.** The monitoring, sampling, or quantification method is technically feasible for the subject contaminant and the source.

**d.** The monitoring, sampling, or quantification method is reasonably accurate.

**e.** The cost of the method is reasonable in light of the use to be made of the data.

~~309.3~~**310.3** Orders issued or permit conditions imposed pursuant to this rule shall be appealable to the hearing board in the same manner as that prescribed for orders of abatement in A.R.S. § 49-489 and A.R.S. § 49-490 and for permit conditions in A.R.S. § 49-482.

~~310~~**311** **PROHIBITION – PERMIT MODIFICATION:** A person shall not willfully deface, alter, forge, counterfeit, or falsify any permit issued under the provisions of these rules.

~~311~~**312** **PERMIT POSTING REQUIRED**: Any person who has been granted a permit shall keep a complete permit clearly visible and accessible on the site where the equipment is installed. All equipment covered by the permit shall be listed in the permit by a serial number or other equipment identification symbol and shall be identified on a plant diagram.

~~312~~**313** **TRANSITION FROM INSTALLATION AND OPERATING PERMIT PROGRAM TO UNITARY PERMIT PROGRAM:**

~~312.1~~**313.1** **Sources With A Valid Installation, Operating, Or Conditional Permit:** A valid installation permit or operating permit issued by the Control Officer or a valid conditional permit issued by the hearing board before September 1, 1993, and the authority to operate as provided in Laws 1992, Chapter 299, Section 65, continue in effect until any of the following occurs:

**a.** The Control Officer revokes an installation permit.

**b.** The Control Officer issues or denies a Title V permit or a Non-Title V permit to the source.

**c.** The hearing board revokes or modifies a conditional permit or the conditional permit expires. A source operating under a valid conditional permit may continue to operate in accordance with the terms and conditions of such permit after the expiration of the conditional permit if, at least 30 days prior to the expiration of the conditional permit, the source submits an application to the Control Officer for a Title V permit as described in ~~Section 312.2~~ Section 313.2 of this rule or for a Non-Title V permit as described in ~~Section 312.3~~ Section 313.3 of this rule.

~~312.2~~**313.2** **Title V Sources With An Installation, Operating, Or Conditional Permit:** Following November 29, 1996, the effective date of the Environmental Protection Agency's (EPA's) final interim approval of Maricopa County's Title V permit program, a source becomes subject to the requirements of the Title V permit program, when the source meets the applicability requirements as provided in this rule. Sources which hold a valid installation, operating, or conditional permit and require a Title V permit shall comply with the following provisions:

**a.** The owner or operator of the source shall submit a permit application within 180 days of receipt of written notice from the Control Officer that an application is required or 12 months after the source becomes subject to the requirements of Title V of the Act and the permit requirements of these rules, whichever is earlier.

**b.** Any source, which has not yet submitted a Title V permit application, that wishes to make any source change not requiring a permit, an administrative permit revision, a minor permit revision, or a significant permit revision shall comply with the applicable provisions of Rule 210 of these rules.

~~312.3~~**313.3** **Non-Title V Sources With An Installation, Operating, Or Conditional Permit:** Sources requiring a Non-Title V permit in existence on the date these rules become effective which hold a valid installation, operating, or conditional permit shall comply with the following provisions:

**a.** All sources shall submit a permit application to the Control Officer within 90 days of receipt of written notice from the Control Officer that an application is required.

**b.** Any source that wishes to make any source change not requiring a permit, an administrative permit revision, a minor permit revision, or a non-minor permit revision shall comply with the applicable provisions of Rule 220 of these rules.

~~312.4~~**313.4** **Written Notice**: For purposes of this subsection, written notice shall include, but not be limited to, a written warning, notice of violation, or order issued by the Control Officer for constructing or operating an emission source without a permit. Such a source shall be considered to be in violation of these rules on each day of operation or each day during which construction continues, until a permit is granted.

~~312.5~~**313.5** **Sources Not Under Permit:**

**a.** All sources not in existence prior to the effective date of these rules shall first submit to the Control Officer an air quality permit application for the entire source and shall have been issued an air quality permit before commencing construction of such source.

**b** All sources in existence on the date these rules become effective and not holding a valid installation permit and/or a valid operating permit issued by the Control

Officer, which have not applied for a Non-Title V permit pursuant to these rules, shall submit to the Control Officer a permit application for the entire source.

**c.** All sources in existence on the date these rules become effective and not holding a valid installation permit and/or a valid operating permit issued by the Control Officer, which have not applied for a Title V permit pursuant to these rules, shall submit to the Control Officer a Title V permit application no more than 12 months after becoming subject to Title V permit requirements.

~~312.6~~**313.6 Sources Which Currently Have An Installation Or Operating Permit:**

**a.** For sources in existence on the date these rules become effective holding a valid installation permit and/or a valid operating permit issued by the Control Officer, the Control Officer may establish a phased schedule for acting on permit applications received within the first full year after the source becomes subject to obtaining a Title V or a Non-Title V permit under these rules. The schedule shall assure that at least one-third of such applications will be acted on annually over a period not to exceed three years after such effective date. Based on this schedule, the Control Officer shall review a completed application in accordance with the provisions of these rules and shall issue or deny the applicable permit within 18 months after the receipt of the completed application.

**b.** Any application for an installation permit or an operating permit that is determined to be complete prior to the effective date of these rules but for which no permit has been issued shall be considered complete for the purposes of this section. In issuing a permit pursuant to such an application, the Control Officer shall include in the permit all elements addressed in the application and a schedule of compliance for submitting an application for a permit revision to address the elements required to be in the permit that were not included in the operating permit application or in the installation permit application. No later than six months after the effective date of these rules, the Control Officer shall take final action on an operating permit application or on an installation permit application determined to be complete prior to the effective date of these rules.

~~313~~**314 ACCELERATED PERMITTING:**

~~313.1~~**314.1** Notwithstanding any other provisions of these rules, the following qualify a source for a request-submittal for accelerated processing: an application for a Title V permit or for a Non-Title V permit; any permit revision; and any coverage under a general permit. Such a request-submittal shall be submitted in writing to the Control Officer at least 30 days in advance of filing the application and shall be accompanied by fees as described in Rule 280 of these rules.

~~313.2~~**314.2** When an applicant has requested accelerated permit processing, the Control Officer may, to the extent practicable, undertake to process the permit or permit revision in accordance with the following schedule:

**a.** For applications for initial Title V and Non-Title V permits under Rules 210 and 220 of these rules, for significant permit revisions under Rule 210 of these rules, or for non-minor permit revisions under Rule 220 of these rules, final action on the permit or on the permit revision shall be taken within 90 days or after the Control Officer determines that the application is complete for a Non-Title V source and within 120 days after the Control Officer determines that the application is complete for a Title V source. Except for a new major source or a major modification subject to the requirements of Rule 240 of these rules, an application for a new permit, a significant permit revision, or a permit renewal shall be deemed to be complete

unless the Control Officer notifies the applicant by certified mail within 30 days of receipt of the application that the application is not complete.

**b.** For applications for coverage under a general permit under Rule 230 of these rules, final action shall be taken within 30 days after receipt of the application.

**c.** For minor permit revisions governed by Rule 210 of these rules and Rule 220 of these rules, the permit revision shall be issued within 60 days after receipt of the application.

~~313.3~~**314.3** Before issuing a permit or permit revision pursuant to this section, the applicant shall pay to the Control Officer all fees due as described in Rule 280 of these rules. Nothing in this section shall affect the public participation requirements of Rules 210 or 220 of these rules, or EPA and affected state review as required under Rule 210 of these rules.

## SECTION 400 – ADMINISTRATIVE REQUIREMENTS

### 401 APPROVAL OR DENIAL OF PERMIT OR PERMIT REVISION:

**401.1** The Control Officer shall deny a permit or revision if the applicant does not demonstrate that every such source for which a permit or permit revision is sought is so designed, controlled, or equipped with such air pollution control equipment that the source may be expected to operate without emitting or without causing to be emitted air contaminants in violation of the provisions of these rules.

**401.2** Prior to acting on an application for a permit, the Control Officer may require the applicant to provide and to maintain such devices and procedures as are necessary for sampling and for testing purposes in order to secure information that will disclose the nature, extent, quantity, or degree of air contaminants discharged into the atmosphere from the source described in the application. In the event of such a requirement, the Control Officer shall notify the applicant in writing of the type and characteristics of such devices and procedures.

**401.3** In acting upon an application for a permit renewal, if the Control Officer finds that such source has not been constructed in accordance with any prior permit or revision issued pursuant to A.R.S. § 49-480.01, the Control Officer shall require the permittee to obtain a permit revision or shall deny the permit renewal. The Control Officer shall not accept any further application for a permit for such source so constructed until the Control Officer finds that such source has been reconstructed in accordance with a prior permit or a revision, or until a revision to the permit has been obtained. The Control Officer may issue a permit with a compliance schedule for a source that is not in compliance with all applicable requirements at the time of permit issuance.

**401.4** After a decision on a permit or on a permit revision, the Control Officer shall notify the applicant and any person who filed a comment on the permit pursuant to A.R.S. § 49-480 or on the permit revision pursuant to A.R.S. § 49-480.01 in writing of the decision, and if the permit is denied, the reasons for such denial. Service of this notification may be made in person or by first class mail. The Control Officer shall not accept a further application unless the applicant has corrected the circumstances giving rise to the objections as specified by the Control Officer as reasons for such denial.

### 402 PERMIT REOPENINGS; REVOCATION AND REISSUANCE; TERMINATION:

**402.1 Reopening For Cause:**

**a.** Each issued permit shall include provisions specifying the conditions under which the permit will be reopened prior to the expiration of the permit. A permit shall be reopened and revised under any of the following circumstances:

**(1)** Additional applicable requirements under the Act become applicable to a major source with a remaining permit term of three or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to Section 403.2 of this rule. Any permit revision required pursuant to this rule shall comply with Section 403 of this rule for a permit renewal and shall reset the five year permit term.

**(2)** Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the Title V permit.

**(3)** The Control Officer or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

**(4)** The Control Officer or the Administrator determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

**b.** Proceedings to reopen and issue a permit, including appeal of any final action relating to a permit reopening, shall follow the same procedures as apply to initial permit issuance and shall, except for reopenings under Section 402.1a(1) of this rule, affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as is practicable.

**c.** Action to reopen a permit under this section shall not be initiated before a notice of such intent is provided to the source by the Control Officer at least 30 days in advance of the date that the permit is to be reopened, except that the Control Officer may provide a shorter time period in the case of an emergency.

**d.** When a permit is reopened and revised pursuant to this rule, the Control Officer may make appropriate revisions to the permit shield established pursuant to Rule 210 of these rules.

**402.2 Reopening For Cause By The Administrator:**

**a.** If the Administrator finds that cause exists to terminate, modify, or revoke and reissue a permit pursuant to Section 402.1 of this rule, the Administrator may notify the Control Officer and the permittee of such finding in writing. Within ten days of receipt of notice from the Administrator that cause exists to reopen a Title V permit, the Control Officer shall notify the source.

**b.** Within 90 days of receipt of notice from the Administrator that cause exists to reopen a permit, the Control Officer shall forward to the Administrator a proposed determination of termination, modification, or revocation and reissuance of the permit. The Control Officer may request a 90 day extension of this limit if it is necessary to request a new or revised permit application or additional information from the applicant for, or holder of, a Title V permit.

**c.** The Control Officer shall have 90 days from receipt of an objection by the Administrator to attempt to resolve the objection.

## 403 PERMIT RENEWAL AND EXPIRATION:

**403.1** Prior to renewing a permit issued under these rules, the Control Officer shall provide notice in the same manner and form as provided in Rule 210 of these rules.

**403.2** The Control Officer shall not renew a permit issued under these rules unless the permittee applies for a permit renewal prior to the expiration of a permit in the manner required by Rule 210 of these rules. If a timely and complete application for a permit renewal is submitted, but the Control Officer has failed to issue or deny the renewal permit before the end of the term of the previous permit, then the permit shall not expire until the renewal permit has been issued or denied. Any testing that is required for a renewal shall be completed before the proposed permit renewal is issued by the Control Officer.

**403.3** The Control Officer shall publish notice of a permit renewal decision in the same manner as that provided in Rule 210 of these rules for a Title V permit and as that provided in Rule 220 of these rules for a Non-Title V permit.

## 404 PERMIT TRANSFERS:

**404.1** Except as provided in A.R.S. § 49-429 and Section 404.2 of this rule, a Title V permit, a Non-Title V permit, or a General permit may be transferred to another person. Before the proposed transfer, the person who holds a valid Non-Title V permit or a valid General permit shall comply with the administrative permit revision procedures pursuant to Rule 220, Section 405.1 of these rules. At least 30 days before the proposed transfer, the person who holds a valid Title V permit shall give notice to the Control Officer in writing and shall comply with the administrative permit amendment procedures pursuant to Rule 210, Section 404 of these rules. Permit transfer notice shall contain the following:

**a.** The permit number and expiration date.

**b.** The name, address and telephone number of the current permit holder.

**c.** The name, address and telephone number of the person to receive the permit.

**d.** The name and title of the individual within the organization who is accepting responsibility for the permit along with a signed statement by that person indicating such acceptance.

**e.** A description of the equipment to be transferred.

**f.** A written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee.

**g.** Provisions for the payment of any fees pursuant to Rule 280 of these rules that will be due and payable before the effective date of transfer.

**h.** Sufficient information about the source's technical and financial capabilities of operating the source to allow the Control Officer to make the decision in Section 404.2 of this rule including:

**(1)** The qualifications of each person principally responsible for the operation of the source.

**(2)** A statement by the chief financial officer of the new permittee that it is financially capable of operating the source in compliance with the law, and the information that provides the basis for that statement.

**(3)** A brief description of any action for the enforcement of any federal or state law, rule or regulation, or any county, city or local government ordinance relating to the protection of the environment, instituted against any person employed by the new permittee and principally responsible for operating the source during the five years preceding the date of application. In lieu of this description, the new permittee may submit a copy of the certificate of disclosure or 10-K form required under A.R.S. § 49-109, or a statement that this information has been filed in compliance with A.R.S. § 49-109.

**404.2** The Control Officer shall deny the transfer if the Control Officer determines that the organization receiving the permit is not capable of operating the source in compliance with Article 3, Chapter 3, Title 49, Arizona Revised Statutes, the provisions of these rules, or the provisions of the permit. Notice of the denial stating the reason for the denial shall be sent to the original permit holder by certified mail stating the reason for the denial within ten working days of the Control Officer's receipt of the application. If the transfer is not denied within ten working days after receipt of the notice, the Control Officer shall approve such permit transfer.

**404.3** To appeal the transfer denial:

**a.** Both the transferor and transferee shall petition the hearing board in writing for a public hearing; and

**b.** The appeal process for a permit shall be followed.

**405 PERMITS CONTAINING THE TERMS AND CONDITIONS OF FEDERAL DELAYED COMPLIANCE ORDERS (DCO) OR CONSENT DECREES:**

**405.1** The terms and conditions of either a DCO or consent decree shall be incorporated into a permit through a permit revision. In the event the permit expires prior to the expiration of the DCO or consent decree, the DCO or consent decree shall be incorporated into any permit renewal.

**405.2** The owner or operator of a source subject to a DCO or consent decree shall submit to the Control Officer a quarterly report of the status of the source and construction progress and copies of any reports to the Administrator required under the order or decree. The Control Officer may require additional reporting requirements and conditions in permits issued under this rule.

**405.3** For the purpose of this rule, sources subject to a consent decree issued by a federal court shall meet the same requirements as those subject to a DCO.

**406** **APPEAL**: Denial or revocation of a permit shall be stayed by the permittee's written petition for a hearing, filed in accordance with Rule 400 of these rules.

**407 AIR QUALITY IMPACT MODELS:**

**407.1** Where the Control Officer requires a person to perform air quality impact modeling, the modeling shall be performed in a manner consistent with 40 CFR 51, Appendix W, “Guideline On Air quality Models”, as of July 1, 2004 (and no future amendments or additions), which shall be referred to hereinafter as "Guideline", and is adopted by reference.

**407.2** **Model Substitution:** Where the person can demonstrate that an air quality impact model specified in the guideline is inappropriate, the model may be modified or another model substituted. However, before such modification or substitution can occur, the Control Officer must make a written finding that:

**a.** No model in the guideline is appropriate; or

**b.** The data base required for the appropriate model in the guideline is not available; and

**c.** A model proposed as a substitute or modification is likely to produce results equal or superior to those obtained by models in the guideline.

**408** **TESTING PROCEDURES**: Except as otherwise specified, the applicable testing procedures contained in the Arizona Testing Manual for Air Pollutant Emissions shall be used to determine compliance with standards or permit conditions established pursuant to these rules.

**409** **PERMIT FEES**: A fee shall be charged for each facility. No permit is valid until the applicable permit fee has been received and until the permit is issued by the Control Officer.

**410** **PORTABLE SOURCES:**

**410.1** An owner or operator of a portable source which will operate for the duration of its permit solely in Maricopa County shall obtain a permit from the Control Officer for Maricopa County and is subject to Sections 410.2, 410.3, and 410.4 of this rule. A portable source with a current State of Arizona permit need not obtain a Maricopa County permit but is subject to Sections 410.3, 410.4, and 410.5 of this rule. Any permit for a portable source shall contain conditions that will assure compliance with all applicable requirements at all authorized locations.

**410.2** An owner or operator of a portable source, which has a Maricopa County permit but proposes to operate outside of Maricopa County, shall obtain a permit from the Director. Upon issuance of a permit by the Director, the Control Officer shall terminate the Maricopa County permit for that source. If the owner or operator relocates the portable source in Maricopa County, the owner or operator shall notify the Control Officer as required by Section 410.4 of this rule of the relocation of the portable source. Whenever the owner or operator of a portable source operates a portable source in Maricopa County, such owner or operator shall comply with all regulatory requirements in these rules.

**410.3** An owner of a portable source, which requires a permit under this rule, shall obtain the permit prior to renting or leasing said portable source. This permit shall be provided by the owner to the renter or lessee, and the renter or lessee shall be bound by the permit provisions. In the event a copy of the permit is not provided to the renter or lessee, both the owner and the renter or lessee shall be responsible for the operation of the portable source in compliance with the permit conditions and any violations thereof.

**410.4** A portable source may be transported from one location to another within or across Maricopa County boundaries provided the owner or operator of such portable source notifies the Director and any Control Officer who has jurisdiction over the geographic area that includes the new location of the portable source by certified mail at least ten working days before the portable source is transported to the new location. The notification required under this rule shall include:

**a.** A description of the portable source to be transported including the Maricopa County permit number or the State of Arizona permit number for such portable source;

**b.** A description of the present location;

**c.** A description of the location to which the portable source is to be transported, including the availability of all utilities, such as water and electricity, necessary for the proper operation of all control equipment;

**d.** The date on which the portable source is to be moved;

**e.** The date on which operation of the portable source will begin at the new location; and

**f.** The duration of operation at the new location.

**410.5** An owner or operator of a portable source with a current State of Arizona permit that moves such portable source into Maricopa County shall notify the Control Officer that such portable source is being transported to a new location and shall include in such notification a copy of the State of Arizona permit and a copy of any conditions imposed by the State of Arizona permit. The source shall be subject to all regulatory requirements of these rules.

**411 PUBLIC RECORDS; CONFIDENTIALITY:**

**411.1** The Control Officer shall make all permits, including all elements required to be in the permit pursuant to Rule 210 of these rules and Rule 220 of these rules available to the public.

**411.2** A notice of confidentiality pursuant to A.R.S. § 49-487(c) shall:

**a.** Precisely identify the information in the application documents, which is considered confidential.

**b.** Contain sufficient supporting information to allow the Control Officer to evaluate whether such information satisfies the requirements related to trade secrets or, if applicable, how the information, if disclosed, could cause substantial harm to the person's competitive position.

**411.3** Within 30 days of receipt of a notice of confidentiality that complies with Section 411.2 of this rule, the Control Officer shall make a determination as to whether the information satisfies the requirements for trade secret or competitive position pursuant to A.R.S. § 49-487(C)(1) and so notify the applicant in writing. If the Control Officer agrees with the applicant that the information covered by the notice of confidentiality satisfies the statutory requirements, the Control Officer shall include a notice in the administrative record of the permit application that certain information has been considered confidential.

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**REGULATION III - CONTROL OF AIR CONTAMINANTS**

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**MARICOPA COUNTY**
**AIR POLLUTION CONTROL REGULATIONS**
**REGULATION III - CONTROL OF AIR CONTAMINANTS**
**RULE 310**
**FUGITIVE DUST FROM DUST GENERATING OPERATIONS**

## SECTION 100 - GENERAL

**101** **PURPOSE:** To limit particulate matter ($PM_{10}$) emissions into the ambient air from any property, operation or activity that may serve as a fugitive dust source. The effect of this rule shall be to minimize the amount of $PM_{10}$ entrained into the ambient air as a result of the impact of human activities by requiring measures to prevent, reduce, or mitigate particulate matter emissions.

**102** **APPLICABILITY:** The provisions of this rule shall apply to all dust generating operations except for those dust generating operations listed in Section 103 of this rule.

**103** **EXEMPTIONS:** ~~The following are exempt from the requirements of this rule: normal farm cultural practices under Arizona Revised Statutes (A.R.S.) § 49-457 and § 49-504.4, and open areas, vacant lots, unpaved parking lots, and unpaved roadways that are not located at sources that require any permit under these rules.~~ The provisions of this rule shall not apply to the following activities:

**103.1** The provisions of this rule shall not apply to normal farm cultural practices according to Arizona Revised Statutes (A.R.S.) § 49-457 and A.R.S. § 49-504.4.

**103.2** The provisions of this rule shall not apply to the following non-traditional sources of fugitive dust that are located at sources that do not require any permit under these rules. These non-traditional sources of fugitive dust are subject to the standards and/or requirements described in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust of these rules.

**a.** Vehicle use in open areas and vacant lots

**b.** Open areas and vacant lots

**c.** Unpaved parking lots

**d.** Unpaved roadways (including alleys)

**e.** Livestock activities

**f.** Erosion-caused deposition of bulk materials onto paved surfaces

**g.** Easements, rights-of-way, and access roads for utilities (transmission of electricity, natural gas, oil, water, and gas)

**103.3** The provisions of this rule shall not apply to emergency activities that may disturb the soil conducted by any utility or government agency in order to prevent public injury or to restore critical utilities to functional status.

**103.4** An area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in Section 304 of this rule.

**103.5** Establishing initial landscapes without the use of mechanized equipment, conducting landscape maintenance without the use of mechanized equipment, and playing on or maintaining a field used for non-motorized sports shall not be considered a dust generating operation. However, establishing initial landscapes without the use of mechanized equipment and conducting landscape maintenance without the use of mechanized equipment shall not include grading, or trenching performed to establish initial landscapes or to redesign existing landscapes.

**103.6** Fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III-Control Of Air Contaminants of these rules.

**SECTION 200 - DEFINITIONS:** For the purpose of this rule, the following definitions shall apply. See Rule 100-General Provisions And Definitions of these rules for definitions of terms that are used but not specifically defined in this rule.

**201** **AREA A -** As defined in A.R.S. § 49-541(1), the area in Maricopa County delineated as follows:
Township 8 North, Range 2 East and Range 3 East
Township 7 North, Range 2 West through Range 5 East
Township 6 North, Range 5 West through Range 6 East
Township 5 North, Range 5 West through Range 7 East
Township 4 North, Range 5 West through Range 8 East
Township 3 North, Range 5 West through Range 8 East
Township 2 North, Range 5 West through Range 8 East
Township 1 North, Range 5 West through Range 7 East
Township 1 South, Range 5 West through Range 7 East
Township 2 South, Range 5 West through Range 7 East
Township 3 South, Range 5 West through Range 1 East
Township 4 South, Range 5 West through Range 1 East

~~201~~**202** **AREA ACCESSIBLE TO THE PUBLIC** – Any ~~retail~~ parking lot or public roadway that i~~s open to~~ can be approached, entered, or used for public travel primarily for purposes unrelated to the dust generating operation.

~~202~~**203** **BULK MATERIAL -** Any material, including, but not limited to, the following materials ~~earth, rock, silt, sediment, sand, gravel, soil, fill, aggregate less than 2 inches in length or diameter (i.e., aggregate base course (ABC)), earth, soil, dirt, mud, demolition debris, cotton, trash, cinders, pumice, rock, saw dust, feeds, grains, fertilizers, fluff (from shredders), and dry concrete,~~ that are capable of producing fugitive dust.:

**203.1** Earth
**203.2** Rock
**203.3** Silt
**203.4** Sediment
**203.5** Sand
**203.6** Gravel
**203.7** Soil
**203.8** Fill
**203.9** Aggregate less than 2 inches in length or diameter (i.e., aggregate base course [ABC])
**203.10** Dirt
**203.11** Mud

**203.12** Demolition debris
**203.13** Cotton
**203.14** Trash
**203.15** Cinders
**203.16** Pumice
**203.17** Saw dust
**203.18** Feeds
**203.19** Grains
**203.20** Fertilizers
**203.21** Fluff from shredders
**203.22** Dry concrete

~~203~~**204** **BULK MATERIAL HANDLING, STORAGE, AND/OR TRANSPORTING OPERATION -** The use of equipment, haul trucks, and/or motor vehicles, including, but not limited to, for the following activities ~~the loading, unloading, conveying, transporting, piling, stacking, screening, grading, or moving of bulk materials,~~ that are capable of producing fugitive dust~~.~~:

**204.1** Loading
**204.2** Unloading
**204.3** Conveying
**204.4** Transporting
**204.5** Piling
**204.6** Stacking
**204.7** Screening
**204.8** Grading
**204.9** Moving bulk materials

~~204~~**205** **CONTROL MEASURE** - A technique, practice, or procedure used to prevent or minimize the generation, emission, entrainment, suspension, and/or airborne transport of fugitive dust. Control measures include, but are not limited to:

~~204.1~~**205.1** Curbing;
~~204.2~~**205.2** Paving;
~~204.3~~**205.3** ~~Pre-wetting~~ Pre-watering;
~~204.4~~**205.4** Applying dust suppressants;
~~204.5~~**205.5** Physically stabilizing with vegetation, gravel, recrushed/recycled asphalt or other forms of physical stabilization;
~~204.6~~**205.6** Limiting, restricting, phasing and/or rerouting motor vehicle access;
~~204.7~~**205.7** Reducing vehicle speeds and/or number of vehicle trips;
~~204.8~~**205.8** Limiting use of off-road vehicles on open areas and vacant lots;
~~204.9~~**205.9** Utilizing work practices and/or structural provisions to prevent wind and water erosion onto paved areas accessible to the public;
~~204.10~~**205.10** Appropriately using dust control implements;
~~204.11~~**205.11** Installing one or more grizzlies, gravel pads, and/or wash down pads adjacent to the entrance of a paved area accessible to the public to control carry-out and trackout;
~~204.12~~**205.12** Keeping open-bodied haul trucks in good repair, so that spillage may not occur from beds, sidewalls, and tailgates; and
~~204.13~~**205.13** Covering the cargo beds of haul trucks to minimize wind-blown dust emissions and spillage.

~~205~~**206** **DISTURBED SURFACE AREA –** A portion of the earth's surface ~~(or material placed thereupon) which~~ or material placed on the earth's surface that has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition~~, thereby increasing the potential for the emission of fugitive dust.~~ if the potential for the emission of fugitive dust is increased by the movement, destabilization, or modification. ~~For the purpose of this rule, an area is considered to be a disturbed surface area until the activity that caused the~~

~~disturbance has been completed and the disturbed surface area meets the standards described in Section 301 and Section 302 of this rule.~~

~~206~~**207** **DUST CONTROL IMPLEMENT –** A tool, machine, equipment, accessory, structure, enclosure, cover, material or supply, including an adequate readily available supply of water and its associated distribution/delivery system, used to control fugitive dust emissions.

~~207~~**208** **DUST CONTROL PLAN** - A written plan describing all ~~fugitive dust~~ control measures to be implemented and maintained in order to prevent or minimize the generation, emission, entrainment, suspension, and/or airborne transport of fugitive dust.

~~208~~**209** **DUST GENERATING OPERATION -** Any activity capable of generating fugitive dust, including but not limited to, the following activities: ~~land clearing, earthmoving, weed abatement by discing or blading, excavating, construction, demolition, bulk material handling, storage and/or transporting operations, vehicle use and movement, the operation of any outdoor equipment, or unpaved parking lots. For the purpose of this rule, landscape maintenance and playing on or maintaining a field used for non-motorized sports shall not be considered a dust generating operation. However, landscape maintenance shall not include grading, trenching, or any other mechanized surface disturbing activities performed to establish initial landscapes or to redesign existing landscapes.~~

| | |
|---|---|
| ~~208.1~~**209.1** | Land clearing, maintenance, and land cleanup using mechanized equipment |
| ~~208.2~~**209.2** | Earthmoving |
| ~~208.3~~**209.3** | Weed abatement by discing or blading |
| ~~208.4~~**209.4** | Excavating |
| ~~208.5~~**209.5** | Construction |
| ~~208.6~~**209.6** | Demolition |
| ~~208.7~~**209.7** | Bulk material handling (e.g., bulk material hauling and/or transporting, bulk material stacking, loading, and unloading operations) |
| ~~208.8~~**209.8** | Storage and/or transporting operations (e.g., open storage piles, bulk material hauling and/or transporting, bulk material stacking, loading, and unloading operations) |
| ~~208.9~~**209.9** | Operation of any outdoor equipment |
| ~~208.10~~**209.10** | Operation of motorized machinery |
| ~~208.11~~**209.11** | Establishing and/or using staging areas, parking areas, material storage areas, or access routes to and from a site |
| ~~208.12~~**209.12** | Establishing and/or using unpaved haul/access roads to, from, and within a site |
| ~~208.13~~**209.13** | Disturbed surface areas associated with a site |
| ~~208.14~~**209.14** | Installing initial landscapes using mechanized equipment |

~~209~~**210** **DUST SUPPRESSANT** – 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 U.S. 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.

~~210~~**211** **EARTHMOVING OPERATION** – The use of any equipment for an activity which may generate fugitive dust, such as but not limited to, the following activities: ~~cutting and filling, grading, leveling, excavating, trenching, loading or unloading of bulk materials, demolishing, blasting, drilling, adding to or removing bulk materials from open storage piles, back filling, soil mulching, landfill operations, or weed abatement by discing or blading.~~

| | |
|---|---|
| **211.1** | Cutting and filling |
| **211.2** | Grading |
| **211.3** | Leveling |
| **211.4** | Excavating |
| **211.5** | Trenching |

**211.6** Loading or unloading of bulk materials
**211.7** Demolishing
**211.8** Blasting
**211.9** Drilling
**211.10** Adding bulk materials to or removing bulk materials from open storage piles
**211.11** Back filling
**211.12** Soil mulching
**211.13** Landfill operations
**211.14** Weed abatement by discing or blading

**212** **EMERGENCY -** A situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a limitation in this rule, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include any noncompliance due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

**213** **EMERGENCY ACTIVITY -** Repairs that are a result of an emergency which prevents or hinders the provision of electricity, the distribution/collection of water, and the availability of other utilities due to unforeseen circumstances that are beyond the routine maintenance and repair due to normal wear conducted by a utility or municipality.

**214** **END OF WORK DAY -** 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 pm.

~~211~~**215** **FREEBOARD –** The vertical distance between the top edge of a cargo container area and the highest point at which the bulk material contacts the sides, front, and back of a cargo container area.

~~212~~**216** **FUGITIVE DUST** - The particulate matter not collected by a capture system, that is entrained in the ambient air, and is caused from human and/or natural activities, such as, but not limited to, the movement of soil, vehicles, equipment, blasting, and wind. ~~For the purpose of this rule, fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III-Control Of Air Contaminants of these rules.~~

~~213~~**217** **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. A gravel pad shall consist of one inch to 3 inches rough diameter, clean, well-graded gravel or crushed rock. Minimum dimensions must be 30 feet wide by 3 inches deep, and, at minimum, 50 feet long or the length of the longest haul truck, whichever is greater.

~~214~~**218** **GRIZZLY –** 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.

~~215~~**219** **HAUL TRUCK** - Any fully or partially open-bodied self-propelled vehicle including any non-motorized attachments, such as, but not limited to, trailers or other conveyances that are connected to or propelled by the actual motorized portion of the vehicle used for transporting bulk materials.

~~216~~**220** **MOTOR VEHICLE –** A self-propelled vehicle for use on the public roads and highways of the State of Arizona and required to be registered under the Arizona State Uniform Motor Vehicle Act, including any non-motorized attachments, such as but not limited to, trailers or other conveyances which are connected to or propelled by the actual motorized portion of the vehicle.

~~217~~**221** **NORMAL FARM CULTURAL PRACTICE** – All activities by the owner, lessee, agent, independent contractor, and/or supplier conducted on any facility for the production of crops and/or nursery plants. Disturbances of the field surface caused by turning under stalks, tilling, leveling, planting, fertilizing, or harvesting are included in this definition.

~~218~~**222** **OFF-ROAD VEHICLE –** Any self-propelled conveyance specifically designed for off-road use, including, but not limited to, off-road or all-terrain equipment, trucks, cars, motorcycles, motorbikes, or motorbuggies.

~~219~~ ~~OPEN AREAS AND VACANT LOTS – Any of the following described in Section 219.1 through Section 219.4 of this rule. For the purpose of this rule, vacant portions of residential or commercial lots that are immediately adjacent and owned and/or operated by the same individual or entity are considered one open area or vacant lot.~~

~~219.1~~ ~~An unsubdivided or undeveloped tract of land adjoining a developed or partially developed residential, industrial, institutional, governmental, or commercial area.~~

~~219.2~~ ~~A subdivided residential, industrial, institutional, governmental, or commercial lot that contains no approved or permitted buildings or structures of a temporary or permanent nature.~~

~~219.3~~ ~~A partially developed residential, industrial, institutional, governmental, or commercial lot.~~

~~219.4~~ ~~A tract of land, in the nonattainment area, adjoining agricultural property.~~

**223** **OPEN STORAGE PILE** - Any accumulation of bulk material with a 5% or greater silt content that has a total surface area of 150 square feet or more and that at any one point attains a height of three feet. Silt content shall be assumed to be 5% or greater unless a person can show, by testing in accordance with ASTM Method C136-06 or other equivalent method approved in writing by the Control Officer and the Administrator that the silt content is less than 5%.

~~220~~**224** **OWNER AND/OR OPERATOR –** The person ~~responsible for obtaining an earthmoving permit under Rule 200, Section 305,~~ including, but not limited to, the property owner, lessee, developer, responsible official, Dust Control permit applicant (who may also be the responsible party contracting to do the work), general contractor, prime contractor, supervisor, management company, or any person who owns, leases, operates, controls, or supervises a dust generating operation subject to the requirements of this rule.

~~221~~**225** **PAVE –** To apply and maintain asphalt, concrete, or other similar material to a roadway surface (i.e., asphaltic concrete, concrete pavement, chip seal, or rubberized asphalt).

**226** **PROPERTY LINE** - The boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.

~~222~~**227** **PUBLIC ROADWAYS** – Any roadways that are open to public travel.

~~223~~**228** **ROUTINE** – Any dust generating operation which occurs more than 4 times per year or lasts 30 cumulative days or more per year.

~~224~~**229** **SILT–** Any aggregate material with a particle size less than 75 micrometers in diameter, which passes through a No. 200 Sieve.

~~225~~**230** **TRACKOUT/CARRYOUT –** 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.

~~226~~**231** **TRACKOUT CONTROL DEVICE** - A gravel pad, grizzly, wheel wash system, or a paved area, located at the point of intersection of an unpaved area and a paved area accessible to the public that controls or prevents vehicular trackout.

~~227~~**232** **UNPAVED HAUL/ACCESS ROAD –** Any on-site unpaved road used by commercial, industrial, institutional, and/or governmental traffic.

~~228~~**233** **UNPAVED PARKING LOT –** Any area ~~larger than 5,000 square feet~~ that is not paved and that is used for parking, maneuvering, material handling, or storing motor vehicles and equipment. An unpaved parking lot includes, but is not limited to, automobile impound yards, wrecking yards, automobile dismantling yards, salvage yards, material handling yards, and storage yards. For the purpose of this definition, maneuvering shall not include military maneuvers or exercises conducted on federal facilities.

~~229~~**234** **UNPAVED ROAD –** Any road or equipment path that is not paved. For the purpose of this rule, an unpaved road is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles.

~~230~~ ~~URBAN OR SUBURBAN OPEN AREA – The definition of urban or suburban open area is included in Section 219-Definition Of Open Areas And Vacant Lots of this rule.~~

~~231~~ ~~VACANT LOT – The definition of vacant lot is included in Section 219-Definition Of Open Areas And Vacant Lots of this rule.~~

~~232~~ ~~VACANT PARCEL – The definition of vacant parcel is included in Section 219-Definition Of Open Areas And Vacant Lots of this rule.~~

~~233~~**235** **WIND-BLOWN DUST -** Visible emissions, from any disturbed surface area, that are generated by wind action alone.

~~234~~**236** **WIND EVENT –** When the 60-minute average wind speed is greater than 25 miles per hour.

~~235~~**237** **WORK SITE –** Any property upon which any dust generating operations ~~and/or earthmoving operations~~ occur.

**SECTION 300 – STANDARDS**

**301** **GENERAL REQUIREMENTS FOR DUST GENERATING OPERATIONS**: Any person engaged in a dust generating operation subject to this rule shall be subject to the standards and/or requirements of this rule before, after, and while conducting such dust generating operation, including during weekends, after work hours, and on holidays. Failure to comply with any one of the following requirements shall constitute a violation.

**301.1** Visible emissions requirements from dust generating operations described in Section 303 of this rule.

**301.2** Stabilization requirements described in Section 304 of this rule.

**301.3** Control measures described in Section 305 of this rule.

**301.4** Trackout, carry-out, spillage, and/or erosion requirements described in Section 306 of this rule.

**301.5** Soil moisture requirements described in Section 307 of this rule.

**301.6** Dust control training class requirements described in Section 309 of this rule.

**301.7** Dust control permit requirements described in Section 401 of this rule.

**301.8** Dust Control Plan requirements described in Section 402 of this rule.

**301.9** Monitoring and recordkeeping requirements described in Section 500 of this rule.

**301.10** Any other requirements of this rule.

## 302 PERMIT REQUIREMENTS FOR DUST GENERATING OPERATIONS:

**302.1** No person shall commence construction of, operate, or make a modification to any dust generating operation when such dust generating operations disturb a total surface area of 0.10 acre (4,356 square feet) or more without first obtaining a permit or permit revision from the Control Officer.

**302.2** No person shall commence construction of, operate, or make a modification to any dust generating operation that disturbs a total surface area of less than 0.10 acre (4,356 square feet) under common control that are either contiguous or separated only by a public or private roadway and that cumulatively equal or exceed 0.10 acre (4,356 square feet) in area without first obtaining a permit or permit revision from the Control Officer.

**302.3** No person shall commence any routine dust generating operation that disturbs a surface area of 0.10 acre or greater at a site that has obtained or must obtain a Title V, Non-Title V, or General permit under Regulation II-Permits And Fees of these rules without first submitting to the Control Officer a Dust Control Plan.

**302.4** The property owner, lessee, developer, responsible official, Dust Control permit applicant (who may also be the responsible party contracting to do the work), general contractor, prime contractor, supervisor, management company, or any person who owns, leases, operates, controls, or supervises a dust generating operation subject to the requirements of this rule shall be responsible for obtaining a permit or permit revision from the Control Officer.

**302.5** All permit applications shall be filed in the manner and form prescribed by the Control Officer. The application shall contain all the information necessary to enable the Control Officer to make the determination to grant or to deny a permit or permit revision, which shall contain such terms and conditions as the Control Officer deems necessary to assure a source's compliance with the requirements of this rule.

**302.6** The issuance of any permit or permit revision shall not relieve any person subject to the requirements of this rule from compliance with any Federal laws, Arizona laws, or these rules.

**302.7** Any other law, regulation or permit shall not relieve any person from obtaining a permit or permit revision required under this rule.

## ~~301~~303 VISIBLE EMISSIONS REQUIREMENTS FOR DUST GENERATING OPERATIONS:

~~The owner and/or operator of a dust generating operation shall not allow visible fugitive dust emissions to exceed 20% opacity as tested by methods described in Appendix C of these rules.~~

**303.1** **Dust Generating Operation Opacity Limitation Requirement**: The owner and/or operator of a dust generating operation shall not allow visible fugitive dust emissions to exceed the limits listed in either one of the following:

**a.** The owner and/or operator of a dust generating operation shall not cause or allow visible fugitive dust emissions to exceed 20% opacity.

**b.** 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. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six minute period as determined by using EPA Reference Method 22.

**303.2** **Exemptions From Dust Generating Operation Opacity Limitation Requirement:**

~~301.1~~**a.** **Wind Event:** Exceedances of the opacity limit described in Section 303.1 of this rule that occur due to a wind event shall constitute a violation of the opacity limit. However, it shall be an affirmative defense in an enforcement action if the owner and/or operator demonstrates all of the following conditions:

**(1)** All control measures required were followed and ~~1~~ one or more of the following control measures ~~in Tables 20 & 21 was~~ were applied and maintained~~.~~:

**(a)** For dust generating operations:

**(i)** Cease dust generating operations for the duration of the condition/situation/event when the 60-minute average wind speed is greater than 25 miles per hour and if dust generating operations are ceased for the remainder of the work day, stabilize the area;

**(ii)** Apply water or other suitable dust suppressant at least twice per hour to dust generating operations in the $PM_{10}$ nonattainment area and at least once per hour to dust generating operations outside the $PM_{10}$ nonattainment area;

**(iii)** Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-05 or other equivalent method as approved by the Control Officer and the Administrator. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-02e1 or other equivalent method approved by the Control Officer and the Administrator, maintain at least 70% of the optimum soil moisture content; or

**(iv)** Implement Section 303.2(a)(1)(a)(ii) or Section 303.2(a)(1)(a)(iii) of this rule and 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 wind-blown material leaving a site.

**(b)** For temporary disturbed surface areas, including but not limited to, after work hours, weekends, and holidays:

**(i)** Uniformly apply and maintain surface gravel or dust suppressants;

**(ii)** Apply water to all disturbed surface areas three times per day. If there is any evidence of wind-blown dust, increase watering frequency to a minimum of four times per day;

**(iii)** Apply water on open storage piles at least twice per hour to temporary disturbed surface areas in the $PM_{10}$ nonattainment area and at least once per hour to temporary disturbed surface areas outside the $PM_{10}$ nonattainment area; or

**(iv)** Cover open storage piles with tarps, plastic, or other material such that wind will not remove the covering(s).

**(2)** ~~The 20% opacity exceedance~~ Exceedances of the opacity limit described in Section 303.1 of this rule could not have been prevented by better application, implementation, operation, or maintenance of control measures;

**(3)** The owner and/or operator compiled and retained records, in accordance with Section 502-Recordkeeping of this rule; and

**(4)** The occurrence of a wind event on the day(s) in question is documented by records. The occurrence of a wind event must be determined by the nearest ~~Maricopa County Environmental Services Department Air Quality Division~~ Maricopa County Air Quality Department monitoring station, from any other certified meteorological station, or by a wind instrument that is calibrated according to manufacturer's standards and that is located at the site being checked.

~~301.2~~**b.** **Emergency Maintenance Of Flood Control Channels And Water Retention Basins:** ~~No opacity limitation shall~~ The opacity limit described in Section 303.1 of this rule shall not apply to emergency maintenance of flood control channels and water retention basins, provided that control measures are implemented.

~~301.3~~**c.** **Vehicle Test And Development Facilities And Operations:** ~~No opacity limitation shall~~ The opacity limit described in Section 303.1(a) of this rule shall not apply to vehicle test and development facilities and operations when dust is required to test and validate design integrity, product quality, and/or commercial acceptance, if such testing is not feasible within enclosed facilities. However, all areas used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized after such testing, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. All areas not used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. In addition, vehicle test and development facilities may require a Dust Control permit in accordance with Section 302 of this rule.

**d.** **Activities Near The Property Line:** The opacity limit described in Section 303.1(b) of this rule shall not apply to dust generating operations conducted within 25 feet of the property line.

~~302~~**304** **STABILIZATION REQUIREMENTS FOR DUST GENERATING OPERATIONS:**

~~302.1~~**304.1** **Unpaved Parking Lot:** The owner and/or operator of any unpaved parking lot shall not allow visible fugitive dust emissions to exceed 20% opacity and either Section 304.1(a) or Section 304.1(b) of this rule:

**a.** Shall not allow silt loading equal to or greater than 0.33 $oz/ft^2$, or

**b.** Shall not allow the silt content to exceed 8%.

~~302.2~~**304.2 Unpaved Haul/Access Road:**

**a.** The owner and/or operator of any unpaved haul/access road (whether including at a work site that is under construction or at a work site that is temporarily or permanently inactive) shall not allow visible fugitive dust emissions to exceed 20% opacity and either Section 304.2(a)(1) or Section 304.2(a)(2) of this rule:

**(1)** Shall not allow silt loading equal to or greater than 0.33 oz/ft$^2$; or

**(2)** Shall not allow the silt content to exceed 6%.

**b.** The owner and/or operator of any unpaved haul/access road (including at a work site that is under construction or a work site that is temporarily or permanently inactive) shall, as an alternative to meeting the stabilization requirements for an unpaved haul/access road in Section 304.2(a) of this rule, limit vehicle trips to no more than 20 per day per road and limit vehicle speeds to no more than 15 miles per hour. If complying with this ~~subsection~~ section of this rule, the owner and/or operator must include, in a Dust Control Plan, the maximum number of vehicle trips on the unpaved haul/access 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 miles per hour.

~~302.3~~**304.3** ~~**Open Area And Vacant Lot Or**~~ **Disturbed Surface Area**: The owner and/or operator of ~~an open area and/or vacant lot or~~ any disturbed surface area on which no activity is occurring (including at a work site that is under construction or a work site that is temporarily or permanently inactive) shall meet at least ~~1~~ one of the standards described in ~~Sections 302.3(a) through 302.3(g)~~ Sections 304.3(a) through 304.3(g) below, as applicable. Should ~~a disturbed open area and/or vacant lot or~~ any disturbed surface area on which no activity is occurring contain more than one type of ~~disturbance~~ visibly distinguishable stabilization characteristics, soil, vegetation, or other characteristics, which are visibly distinguishable, the owner and/or operator shall test each representative surface separately for stability, in an area that represents a random portion of the overall disturbed conditions of the site, ~~according to the appropriate test methods in Appendix C of these rules, and include or eliminate it from the total size assessment of disturbed surface area(s) depending upon test method results~~ in accordance with the appropriate test methods described in Section 501.2(c) of this rule and in Appendix C-Fugitive Dust Test Methods of these rules. The owner and/or operator of such ~~inactive disturbed surface area~~ disturbed surface area on which no activity is occurring shall be considered in violation of this rule if the area is not maintained in a manner that meets at least ~~1~~ one of the standards listed below, as applicable.

**a.** Maintain a ~~visible~~ soil crust;

**b.** Maintain a threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 cm/second or higher;

**c.** 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%;

**d.** 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%;

**e.** 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;

**f.** Maintain a percent cover that is equal to or greater than 10% for non-erodible elements; or

**g.** Comply with a standard of an alternative test method, upon obtaining the written approval from the Control Officer and the Administrator. ~~of the Environmental Protection Agency (EPA).~~

~~302.4~~**304.4 Vehicle Test And Development Facilities And Operations**: No stabilization requirement shall apply to vehicle test and development facilities and operations when dust is required to test and validate design integrity, product quality, and/or commercial acceptance, if such testing is not feasible within enclosed facilities. However, all areas used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized after such testing, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. All areas not used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. In addition, vehicle test and development facilities may require a Dust Control permit in accordance with Section 302 of this rule.

**305 CONTROL MEASURES FOR DUST GENERATING OPERATIONS:** When engaged in a dust generating operation, the owner and/or operator shall install, maintain, and use control measures, as applicable. The owner and/or operator of a dust generating operation shall implement control measures before, after, and while conducting dust generating operations, including during weekends, after work hours, and on holidays. At least one primary control measure and one contingency control measure must be identified in the Dust Control Plan for all dust generating sources. Control measures for specific dust generating operations are described in Section 305.1 through Section 305.12 of this rule.

**305.1 Off-Site Hauling Onto Paved Areas Accessible To The Public:** The owner and/or operator of a dust generating operation that involves off-site hauling shall implement the following control measures:

**a.** When cargo compartment is loaded:

**(1)** Load all haul trucks such that the freeboard is not less than three inches;

**(2)** 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 a cargo container area;

**(3)** Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and

**(4)** Cover cargo compartment with a tarp or other suitable closure.

**b.** When cargo compartment is empty:

**(1)** Clean the interior of the cargo compartment; or

**(2)** Cover the cargo compartment with a tarp or other suitable closure.

**c.** When off-site hauling, 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.

**305.2** **Bulk Material Hauling/Transporting When On-Site Hauling/Transporting Within The Boundaries Of The Work Site But Not Crossing A Paved Area Accessible To The Public:** The owner and/or operator of a dust generating operation that involves bulk material hauling/transporting when on-site hauling/transporting within the boundaries of the work site but not crossing a paved area accessible to the public shall implement one of the following control measures:

**a.** Limit vehicle speed to 15 miles per hour or less while traveling on the work site;

**b.** Apply water to the top of the load; or

**c.** Cover haul trucks with a tarp or other suitable closure.

**305.3** **Bulk Material Hauling/Transporting When On-Site Hauling/Transporting Within The Boundaries Of The Work Site And Crossing And/Or Accessing A Paved Area Accessible To The Public:** The owner and/or operator of a dust generating operation that involves bulk material hauling/transporting when on-site hauling/transporting within the boundaries of the work site and crossing and/or accessing a paved area accessible to the public shall implement all of the following control measures:

**a.** Load all haul trucks such that the freeboard is not less than three inches;

**b.** 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 a cargo container area;

**c.** Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and

**d.** When crossing and/or accessing a paved area accessible to the public, 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.

**305.4** **Bulk Material Stacking, Loading, And Unloading Operations:** The owner and/or operator of a dust generating operation that involves bulk material stacking, loading, and unloading operations shall implement at least one of the following control measures:

**a.** Spray material with water, as necessary, prior to stacking, loading, and unloading and/or while stacking, loading, and unloading; or

**b.** Spray material with a dust suppressant other than water, as necessary, prior to stacking, loading, and unloading and/or while stacking, loading, and unloading.

**305.5** **Open Storage Piles**: The owner and/or operator of a dust generating operation that involves an open storage pile shall implement the following control measures, as applicable:

**a.** Prior to and/or while conducting stacking, loading, and unloading operations, implement one of the following control measures:

**(1)** Spray material with water, as necessary; or

**(2)** Spray material with a dust suppressant other than water, as necessary.

**b.** When not conducting stacking, loading, and unloading operations, implement one of the following control measures:

**(1)** Cover all open storage piles with a tarp, plastic, or other material to prevent wind from removing the covering(s)/such that the covering(s) will not be dislodged by wind; or

**(2)** Apply water to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-05 or other equivalent methods approved by the Control Officer and the Administrator. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-02e1 or other equivalent methods approved by the Control Officer and the Administrator, maintain at least 70% of the optimum soil moisture content.

**(3)** Maintain a soil crust; or

**(4)** Implement the control measure described in Section 305.5(b)(2) or in Section 305.5(b)(3) of this rule and construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, 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%.

**305.6** **Unpaved Staging Areas, Unpaved Parking Areas, And Unpaved Material Storage Areas:** The owner and/or operator of a dust generating operation that involves unpaved staging areas, unpaved parking areas, and unpaved material storage areas shall implement one or more of the following control measures:

**a.** Apply water so that the surface is visibly moist;

**b.** Pave;

**c.** Apply and maintain gravel, recycled asphalt, or other suitable material;

**d.** Apply and maintain a suitable dust suppressant other than water; or

**e.** Limit vehicle trips to no more than 20 per day per road and limit vehicle speeds to no more than 15 miles per hour. If complying with this section, the owner and/or operator shall provide to the Control Officer the maximum number of vehicle trips on the staging areas, parking areas, and/or material storage areas 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 miles per hour.

**305.7** **Unpaved Haul/Access Roads**: The owner and/or operator of a dust generating operation that involves unpaved haul/access roads shall implement one or more of the following control measures:

**a.** Apply water so that the surface is visibly moist;

**b.** Pave;

**c.** Apply and maintain gravel, recycled asphalt, or other suitable material;

**d.** Apply and maintain a suitable dust suppressant other than water; or

**e.** Limit vehicle trips to no more than 20 per day per road and limit vehicle speeds to no more than 15 miles per hour. If complying with this section of this rule, the owner and/or operator shall provide to the Control Officer the maximum number of vehicle trips on the unpaved haul/access 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 miles per hour.

**305.8** **Weed Abatement By Discing Or Blading:** The owner and/or operator of a dust generating operation that involves weed abatement by discing or blading shall comply with all of the following control measures:

**a.** Before weed abatement by discing or blading occurs, apply water;

**b.** While weed abatement by discing or blading is occurring, apply water; and

**c.** After weed abatement by discing or blading occurs, pave, apply gravel, apply water, apply a suitable dust suppressant other than water, or establish vegetative ground cover.

**305.9** **Blasting Operations:** The owner and/or operator of a dust generating operation that involves blasting operations shall implement all of the following control measures:

**a.** In wind gusts above 25 miles per hour, discontinue/cease blasting; and

**b.** Pre-water and maintain surface soils in a stabilized condition where support equipment and vehicles will operate.

**305.10** **Demolition Activities:** The owner and/or operator of a dust generating operation that involves demolition activities shall implement all of the following control measures:

**a.** Apply water to demolition debris immediately following demolition activity; and

**b.** Apply water to all disturbed soils surfaces to establish a crust and to prevent wind erosion.

**305.11** **Disturbed Surface Areas:** The owner and/or operator of a dust generating operation that involves disturbed surface areas shall implement the following control measures, as applicable:

**a.** Before disturbed surface areas are created, implement one of the following control measures:

**(1)** Pre-water site to depth of cuts, allowing time for penetration; or

**(2)** Phase work to reduce the amount of disturbed surface areas at any one time.

**b.** While disturbed surface areas are being created, implement one of the following control measures:

**(1)** Apply water or other suitable dust suppressant other than water, as necessary;

**(2)** Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-05 or other equivalent method as

approved by the Control Officer and the Administrator. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-02e1 or other equivalent method approved by the Control Officer and the Administrator, maintain at least 70% of the optimum soil moisture content; or

**(3)** Implement control measure described in Section 305.11(b)(1) or Section 305.11(b)(2) of this rule and 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 a site.

**c.** When the dust generating operation is finished for a period of 30 days or longer - for longer than temporary pauses that occur during a dust generating operation, the owner and/or operator shall implement one or more of the following control measures within ten days following the completion of such dust generating operation:

**(1)** Pave, apply gravel, or apply a suitable dust suppressant other than water;

**(2)** Establish vegetative ground cover in sufficient quantity;

**(3)** Implement control measures described in Section 305.11(c)(1) or Section 305.11(c)(2) of this rule and restrict vehicle access to the area;

**(4)** Apply water and prevent access by fences, ditches, vegetation, berms, or other suitable barrier or means sufficient to prevent trespass as approved by the Control Officer; or

**(5)** Restore area such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions.

**305.12 Easements, Rights-Of-Way, And Access Roads For Utilities (Transmission Of Electricity, Natural Gas, Oil, Water, And Gas) Associated With Sources That Have A Non-Title V Permit, A Title V Permit, And/Or A General Permit Under These Rules:** The owner and/or operator of a dust generating operation that involves an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas ) associated with sources that have a Title V permit, a Non-Title V permit, and/or a General permit under these rules shall implement at least one of the following control measures:

**a.** Inside Area A, limit vehicle speed to 15 miles per hour or less and vehicle trips to no more than 20 per day per road;

**b.** Outside Area A, limit vehicle trips to no more than 20 per day per road; or

**c.** Implement control measures described in Section 305.7 of this rule.

**306 TRACKOUT, CARRY-OUT, SPILLAGE, AND/OR EROSION:** The owner and/or operator of a dust generating operation shall prevent and control trackout, carry-out, spillage, and/or erosion.

**306.1 Trackout Control Device:**

**a. Criterion For Trackout Control Device**: Install, maintain and use a suitable trackout control device that prevents and controls trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor

vehicles that traverse the site at all exits onto paved areas accessible to the public from both of the following:

**(1)** All work sites with a disturbed surface area of two acres or larger, and

**(2)** All work sites where 100 cubic yards of bulk materials are hauled on-site and/or off-site per day.

**b.** **Control Measures:** For those work sites identified in Section 306.1(a) of this rule, prevent trackout, carry-out, spillage, and/or erosion by implementing one of the following control measures:

**(1)** At all exits onto paved areas accessible to the public, install a wheel wash system;

**(2)** At all exits onto paved areas accessible to the public, install a gravel pad to comply with Section 217 of this rule;

**(3)** At all exits onto paved areas accessible to the public, install a grizzly or rumble grate that consists of raised dividers (rails, pipes, or grates) a minimum of three inches tall, six inches apart, and 20 feet long, to allow a vibration to be produced such that dust is shaken off the wheels of a vehicle as the entire circumference of each wheel of the vehicle passes over the grizzly or rumble grate; or

**(4)** 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.

**306.2** **Clean Up Of Trackout:**

**a.** **Criterion For Clean Up Of Trackout:** Clean up, trackout, carry-out, spillage, and/or erosion from paved areas accessible to the public including curbs, gutters, and sidewalks, on the following time-schedule:

**(1)** Immediately, when trackout, carry-out, or spillage extends a cumulative distance of 25 linear feet or more; and

**(2)** At the end of the workday, for all other trackout, carry-out, spillage, and/or erosion.

**b.** **Control Measures:**

**(1)** Operate a street sweeper or wet broom with sufficient water, including but not limited to kick broom, steel bristle broom, Teflon broom, vacuum, at the speed recommended by the manufacturer and at the frequency(ies) described in this section of this rule; or

**(2)** Manually sweep-up deposits to comply with this section of this rule.

**307** **SOIL MOISTURE:** If water is the chosen control measure in an approved Dust Control Plan, the owner and/or operator of a dust generating operation shall operate a water application system on-site (e.g., water truck, water hose) while conducting any earthmoving operations on disturbed surface areas 1 acre or larger, unless a soil crust is maintained or the soil is sufficiently damp to prevent loose grains of soil from becoming dislodged.

**308** **PROJECT INFORMATION SIGN FOR DUST GENERATING OPERATIONS**: For all sites with a Dust Control permit that are five acres or larger, except for routine maintenance and repair done under a Dust Control permit-Block permit, the owner and/or operator shall erect and maintain a project information sign at the main entrance such that members of the public can easily view and read the sign at all times. Such sign shall have a white background, have black block lettering that is at least four inches high, and shall contain at least all of the following information:

**308.1** Project name and permittee's name;

**308.2** Current Dust Control permit number and expiration date;

**308.3** Name and local phone number of person(s) responsible for dust control matters;

**308.4** Text stating: "Dust complaints? Call Maricopa County Air Quality Department - (Insert the accurate Maricopa County Air Quality Department complaint line telephone number)."

**309** **DUST CONTROL TRAINING CLASSES FOR DUST GENERATING OPERATIONS:**

**309.1** **Basic Dust Control Training Class:**

**a.** At least once every three years, the site superintendent or other designated on-site representative of the permit holder, if present at a site that has more than one acre of disturbed surface area that is subject to a permit issued by the Control Officer requiring control of $PM_{10}$ emissions from dust generating operation, shall successfully complete a Basic Dust Control Training Class conducted or approved by the Control Officer.

**b.** At least once every three years, water truck and water-pull drivers shall successfully complete a Basic Dust Control Training Class conducted or approved by the Control Officer.

**c.** All persons having successfully completed training during the 2006 and 2007 calendar years shall be deemed to have satisfied the requirement to successfully complete the Basic Dust Control Training Class, if the training that was completed was conducted or approved by the Control Officer. Completion of the Comprehensive Dust Control Training Class, as required in Section 309.2 of this rule, shall satisfy the requirement of this section of this rule.

**309.2** **Comprehensive Dust Control Training Class:**

**a.** At least once every three years, the Dust Control Coordinator, who meets the requirements of Section 310 of this rule, shall successfully complete the Comprehensive Dust Control Training Class conducted or approved by the Control Officer.

**b.** All persons having successfully completed training during the 2006 and 2007 calendar years shall be deemed to have satisfied the requirement to successfully complete the Comprehensive Dust Control Training Class, if the training that was completed was conducted or approved by the Control Officer.

**310** **DUST CONTROL COORDINATOR FOR DUST GENERATING OPERATIONS:**

**310.1** The permittee for any site of five acres or more of disturbed surface area subject to a permit issued by the Control Officer requiring control of $PM_{10}$ emissions from dust

generating operations shall have on-site at least one Dust Control Coordinator trained in accordance with Section 309.2 of this rule at all times during primary dust generating operations related to the purposes for which the Dust Control permit was obtained.

**310.2** The Dust Control Coordinator shall have full authority to ensure that dust control measures are implemented on-site, including conducting inspections, deployment of dust suppression resources, and modifications or shut-down of activities as needed to control dust.

**310.3** The Dust Control Coordinator shall be responsible for managing dust prevention and dust control on the site.

**310.4** At least once every three years, the Dust Control Coordinator shall successfully complete a Comprehensive Dust Control Training Class conducted or approved by the Control Officer.

**310.5** The Dust Control Coordinator shall have a valid dust training certification identification card readily accessible on-site while acting as a Dust Control Coordinator.

**310.6** The requirement for a Dust Control Coordinator shall lapse when all of the following actions/events/procedures occur:

**a.** The area of disturbed surface area becomes less than five acres;

**b.** The previously disturbed surface areas have been stabilized in accordance with/in compliance with the standards and/or requirements of this rule; and

**c.** The Dust Control permit holder provides notice to the Control Officer of acreage stabilization.

**310.7** The permittee, who is required to obtain a single permit for multiple non-contiguous sites in accordance with Section 404 of this rule, shall have on sites with greater than one acre of disturbed surface area at least one individual who is designated by the permittee as a Dust Control Coordinator trained in accordance with Section 309.1-Basic Dust Control Training Class of this rule. The Dust Control Coordinator shall be present on-site at all times during primary dust generating activities that are related to the purposes for which the permit was obtained.

~~303 DUST CONTROL PLAN REQUIRED:~~

~~303.1 The owner and/or operator of a dust generating operation shall submit to the Control Officer a Dust Control Plan with any permit applications that involve earthmoving operations with a disturbed surface area that equals or exceeds 0.10 acre, including both of the following situations:~~

~~a. When submitting an application for an earthmoving permit involving earthmoving operations that would equal or exceed 0.10 acre, and~~

~~b. Before commencing any routine dust generating operation at a site that has obtained or must obtain a Title V, Non-Title V, or general permit under Regulation II-Permits And Fees of these rules.~~

~~Compliance with this section does not affect an owner and/or operator's responsibility to comply with the other standards of this rule. The Dust Control Plan shall describe all control measures to be implemented before, after, and while conducting any dust generating operation, including during weekends, after work hours, and on holidays.~~

~~303.2~~ ~~A Dust Control Plan shall, at a minimum, contain all the information described in Section 304 of this rule. The Control Officer shall approve, disapprove, or conditionally approve the Dust Control Plan, in accordance with the criteria used to approve, disapprove or conditionally approve a permit. Failure to comply with the provisions of an approved Dust Control Plan is deemed to be a violation of this rule. Regardless of whether an approved Dust Control Plan is in place or not, the owner and/or operator of a dust generating operation is still subject to all requirements of this rule at all times. In addition, the owner and/or operator of a source with an approved Dust Control Plan is still subject to all of the requirements of this rule, even if such owner and/or operator is complying with the approved Dust Control Plan.~~

~~303.3~~ ~~At least one primary control measure and one contingency control measure must be identified in the Dust Control Plan for all fugitive dust sources. Should any primary control measure(s) prove ineffective, the owner and/or operator shall immediately implement the contingency control measure(s). If the identified contingency control measure is effective to comply with all of the requirements of this rule, the owner and/or operator need not revise the Dust Control Plan under Section 305 of this rule.~~

~~303.4~~ ~~A Dust Control Plan shall not be required for any of the following activities:~~

~~a.~~ ~~To play on or maintain a field used for non-motorized sports;~~

~~b.~~ ~~For landscape maintenance, which, for the purpose of this rule, does not include grading, trenching, nor or any other mechanized surface disturbing activities; and~~

~~c.~~ ~~To establish initial landscapes or to redesign existing landscapes of legally-designated public parks and recreational areas, including national parks, national monuments, national forests, state parks, city parks, county regional parks, ballfields, camp sites, and playgrounds at camp sites; hiking paths, horse trails, and bicycle paths that are used exclusively for purposes other than travel by motor vehicles; (for the purpose of this rule, establishing initial landscapes or redesigning existing landscapes does not include grading, trenching, or any other mechanized surface disturbing activities).~~

~~304~~ ~~ELEMENTS OF A DUST CONTROL PLAN: A Dust Control Plan shall contain, at a minimum, all of the following information:~~

~~304.1~~ ~~Name(s), address(es), and phone numbers of person(s) responsible for the submittal and implementation of the Dust Control Plan and responsible for the dust generating operation.~~

~~304.2~~ ~~A drawing, on 8½" x 11" paper, that shows:~~

~~a.~~ ~~Entire project site/facility boundaries,~~

~~b.~~ ~~Acres to be disturbed with linear dimensions,~~

~~c.~~ ~~Nearest public roads,~~

~~d.~~ ~~North arrow, and~~

~~e.~~ ~~Planned exit locations onto paved areas accessible to the public.~~

~~304.3~~ ~~Control measures, or a combination thereof, to be applied to all actual and potential dust generating operations, before, after, and while conducting any dust generating operation, including during weekends, after work hours, and on holidays.~~

~~a.~~ ~~All required control measures from Tables 1-21 and at least one contingency control measure must be identified, for all dust generating operations. Should any primary control measure(s) prove ineffective, the owner and/or operator shall immediately implement the contingency control measure(s). If the identified contingency control measure(s) is effective to comply with all of the requirements of this rule, the owner and/or operator need not revise the Dust Control Plan under Section 305 of this rule.~~

~~b.~~ ~~Alternatively, a control measure(s) that is not listed in Tables 1-21 of this rule may be chosen, provided that such control measure(s) is implemented to comply with the standard(s) described in Section 301 and Section 302 of this rule, as determined by the corresponding test method(s), as applicable, and meets other applicable standard(s) set forth in this rule.~~

~~c.~~ ~~If complying with Section 302.2(b) Stabilization Requirements For Fugitive Dust Sources-Unpaved Haul/Access Road of this rule, the Dust Control Plan must include the maximum number of vehicle trips on the unpaved haul/access roads each day (including number of employee vehicles, earthmoving equipment, haul trucks, and water trucks).~~

~~304.4~~ ~~Dust suppressants to be applied, including all of the following product specifications or label instructions for approved usage:~~

~~a.~~ ~~Method, frequency, and intensity of application;~~

~~b.~~ ~~Type, number, and capacity of application equipment; and~~

~~c.~~ ~~Information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application.~~

~~304.5~~ ~~Specific surface treatment(s) and/or control measures utilized to control material trackout and sedimentation where unpaved and/or access point join paved areas accessible to the public.~~

~~304.6~~ ~~For construction projects one acre or larger, except for routine maintenance and repair done under a block permit, a statement disclosing which of the four designated texture(s) of soil described in Appendix F of these rules is naturally present at or will be imported to the dust generating operation. The measured soil content at a particular site shall take precedence over any mapped soil types, and whenever soils have been tested at a particular site, the test results should be relied on rather than the map in Appendix F.~~

~~305~~ ~~DUST CONTROL PLAN REVISIONS:~~

~~305.1~~ ~~If the Control Officer determines that an approved Dust Control Plan has been followed, yet fugitive dust emissions from any dust generating operation still exceed standards in Section 301 and Section 302 of this rule, then the Control Officer shall issue a written notice to the owner and/or operator of the dust generating operation explaining such determination.~~

~~305.2~~ ~~The owner and/or operator of a dust generating operation shall make written revisions to the Dust Control Plan and shall submit such revised Dust Control Plan to the Control Officer within three working days of receipt of the Control Officer's written notice, unless such time period is extended by the Control Officer, upon request, for good cause.~~

~~During the time that such owner and/or operator is preparing revisions to the approved Dust Control Plan, such owner and/or operator must still comply with all requirements of this rule.~~

~~306 CONTROL MEASURES:~~

~~306.1 The owner and/or operator of a dust generating operation shall implement control measures before, after, and while conducting operations, including during weekends, after work hours, and on holidays, in accordance with Section 304.3 and Tables 1-21 of this rule.~~

~~306.2 For the purpose of this rule, any control measure that is implemented must achieve the applicable standard(s) described in Sections 301 and 302 of this rule, as determined by the corresponding test method(s), as applicable, and must achieve other applicable standard(s) set forth in this rule.~~

~~306.3 Failure to comply with the provisions of Section 308 (Work Practices) of this rule, as applicable, and/or of an approved Dust Control Plan, is deemed a violation of this rule.~~

~~306.4 Regardless of whether a dust generating operation is in compliance with an approved Dust Control Plan, or there is no approved dust control plan, the owner and/or operator of a dust generating operation is still subject to all requirements of this rule at all times.~~

~~307 PROJECT INFORMATION SIGN: For all sites with an earthmoving permit that are five acres or larger, except for routine maintenance and repair done under a block permit, the owner and/or operator shall erect and maintain a project information sign at the main entrance, that is readable by the public. Such sign shall have a white background, have black block lettering that is at least four inches high, and shall contain at least all of the following information:~~

~~307.1 Project name and permit holder,~~

~~307.2 Earthmoving Permit number,~~

~~307.3 Name and phone number of person(s) responsible for conducting the project, and~~

~~307.4 Text stating: "Dust Complaints? Call Maricopa County Environmental Services Department (insert the current/accurate phone number for the complaint phone line)."~~

~~308 WORK PRACTICES: When engaged in the following specific activities, the owner and/or operator of a dust generating operation shall comply with the following work practices in addition to implementing, as applicable, the control measures described in Tables 1-21 of this rule.~~

~~308.1 Bulk Material Hauling Off-Site Onto Paved Areas Accessible to the Public: Notwithstanding other sections of this rule, the owner and/or operator of a dust generating operation and the owner and/or operator of a haul truck shall do all of the following:~~

~~a. Load all haul trucks such that the freeboard is not less than three inches;~~

~~b. Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s);~~

~~c. Cover all haul trucks with a tarp or other suitable closure; and~~

~~d. Before the empty haul truck leaves the site, clean the interior of the cargo compartment or cover the cargo compartment.~~

~~308.2 Bulk Material Hauling On-Site Within the Boundaries of The Work Site: When crossing a paved area accessible to the public while construction is underway, the owner and/or operator of a dust generating operation shall do all of the following:~~

~~a. Load all haul trucks such that the freeboard is not less than three inches;~~

~~b. Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and~~

~~c. Install 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 such work site. Examples of trackout control devices are described in Table 17 of this rule.~~

~~308.3 Trackout, Carry-Out, Spillage, and/or Erosion: The owner and/or operator of a dust generating operation shall do all of the following:~~

~~a. Install, maintain and use a suitable trackout control device (examples of trackout control devices are described in Table 17- Trackout Control of this rule) 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 such operation at all exits onto paved areas accessible to the public from both of the following:~~

~~(1) All work sites with a disturbed surface area of two acres or larger, and~~

~~(2) All work sites where 100 cubic yards of bulk materials are hauled on-site and/or off-site per day.~~

~~b. Clean up, trackout, carry-out, spillage, and/or erosion, on the following time-schedule:~~

~~(1) Immediately, when trackout, carry-out, or spillage extends a cumulative distance of 50 linear feet or more; and~~

~~(2) At the end of the workday, for all other trackout, carry-out, spillage, and/or erosion.~~

~~308.4 Unpaved Haul/Access Roads: The owner and/or operator of a dust generating operation shall implement one or more control measure(s) described in Table 3- Unpaved Haul/Access Roads of this rule, before using or maintaining unpaved haul/access roads.~~

~~308.5 Easements, Rights-Of-Way, and Access Roads for Utilities (Electricity, Natural Gas, Oil, Water, and Gas Transmission) Associated with Sources that have a Non-Title V Permit, a Title V Permit, and/or a General Permit under These Rules: The owner and/or operator of a dust generating operation shall do at least one of the following:~~

~~a. Inside the $PM_{10}$ nonattainment area, restrict vehicular speeds to 15 miles per hour and vehicular trips to no more than 20 per day per road;~~

~~b. Outside the $PM_{10}$ nonattainment area, restrict vehicular trips to no more than 20 per day per road; or~~

~~c. Implement control measures, as described in Table 3- Unpaved Haul/Access Roads of this rule.~~

~~308.6 Open Storage Piles: For the purpose of this rule, an open storage pile is any accumulation of bulk material with a 5% or greater silt content which in any one point attains a height of three feet and covers a total surface area of 150 square feet or more. Silt content shall be assumed to be 5% or greater unless a person can show, by testing in accordance with ASTM Method C136-96A or other equivalent method approved in writing by the Control Officer and the Administrator of EPA, that the silt content is less than 5%. The owner and/or operator of such dust generating operation shall comply with all of the following:~~

~~a. Prior to and/or while conducting stacking, loading, and unloading operations, comply with one of the following work practices:~~

~~(1) Spray material with water, as necessary; or~~

~~(2) Spray material with a dust suppressant other than water, as necessary.~~

~~b. When not conducting stacking, loading, and unloading operations, comply with one of the following work practices:~~

~~(1) Cover open storage piles with tarps, plastic, or other material to prevent wind from removing the coverings;~~

~~(2) Apply water to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98, or other equivalent methods approved by the Control Officer and the Administrator of EPA. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91 (1998) or other equivalent methods approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content;~~

~~(3) Meet one of the stabilization requirements described in Section 302.3 of this rule; or~~

~~(4) Construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, 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%. If implementing this subsection, the owner and/or operator must also implement either Section 308.6(b)(2) or Section 308.6(b)(3) above.~~

~~308.7 Soil Moisture: If water is the chosen control measure in an approved Dust Control Plan, the owner and/or operator of a dust generating operation shall operate a water application system on-site (e.g., water truck, water hose) while conducting any earthmoving operations on disturbed surface areas 1 acre or larger, unless a visible crust is maintained or the soil is sufficiently damp to prevent loose grains of soil from becoming dislodged.~~

~~308.8 Weed Abatement by Discing or Blading: The owner and/or operator of a dust generating operation shall comply with all of the following during weed abatement procedures by discing or blading:~~

~~a. Apply water before weed abatement by discing or blading occurs; and~~

~~b. Apply water while weed abatement by discing or blading is occurring; and~~

~~c. Either:~~

~~(1) Pave, apply gravel, apply water, or apply a suitable dust suppressant, in compliance with Section 302.3 of this rule, after weed abatement by discing or blading occurs; or~~

~~(2) Establish vegetative ground cover in sufficient quantity, in compliance with Section 302.3 of this rule, after weed abatement by discing or blading occurs.~~

**SECTION 400 - ADMINISTRATIVE REQUIREMENTS**

**401** ~~DUST CONTROL PLAN POSTING: The owner and/or operator of an earthmoving operation shall post a copy of the approved Dust Control Plan in a conspicuous location at the work site, within on-site equipment, or in an on-site vehicle, or shall otherwise keep a copy of the approved Dust Control Plan available on-site at all times. The owner and/or operator of a dust generating operation that has been issued a Block Permit shall not be required to keep a copy of the 8½" by 11" site drawing according to Section 304.2 of this rule.~~ **DUST CONTROL PERMIT REQUIREMENTS:**

**401.1** To apply for a Dust Control permit, an applicant shall complete a permit application in the manner and form prescribed by the Control Officer. At a minimum, such application shall contain the following information:

**a.** Applicant information;

**b.** Project information, which shall include a project site drawing and, if the site is one acre or larger, soil designations; and

**c.** Dust Control Plan, which shall meet the specifications described in Section 402 of this rule.

**401.2** A Dust Control permit shall be granted subject to, but not limited to, the following conditions:

**a.** The permittee shall be responsible for ensuring that all persons abide by the conditions of the Dust Control permit and these regulations;

**b.** The permittee shall be responsible for supplying complete copies of the Dust Control permit including the Dust Control Plan, to all project contractors and subcontractors;

**c.** The permittee shall be responsible for all permit conditions, until a Permit Cancellation Request form has been submitted by the owner and/or operator and approved by the Control Officer;

**d.** The permittee shall be responsible for providing Dust Control Coordinator's/ Coordinators' name(s) and dust control training certification information/number(s) to the Control Officer and for keeping such information updated.

**401.3** The signature of the permittee on the Dust Control permit application shall constitute agreement to accept responsibility for meeting the conditions of the Dust Control permit and for ensuring that control measures are implemented throughout the project site and during the duration of the project.

**402** ~~COMPLIANCE SCHEDULE: The requirements of this rule supercede any conflicting requirements that may be found in existing Dust Control Plans.~~ **DUST CONTROL PLAN REQUIREMENTS:**

**402.1** ~~For Earthmoving Permits: If any changes to a Dust Control Plan, associated with an Earthmoving Permit, are necessary as a result of the most recent revisions of this rule, such changes shall not be required until the Earthmoving Permit is required to be renewed.~~ The owner and/or operator of a dust generating operation shall submit to the Control Officer a Dust Control Plan with any permit applications that involve dust generating operations with a disturbed surface area that equals or exceeds 0.10 acre (4,356 square feet) including both of the following situations:

**a.** When submitting an application for a Dust Control permit involving dust generating operations that would equal or exceed 0.10 acre (4,356 square feet), and

**b.** Before commencing any routine dust generating operation at a site that has obtained or must obtain a Title V, Non-Title V, or General permit under Regulation II-Permits And Fees of these rules.

**402.2** ~~For Non-Title V Permits And For Title V Permits: If any changes to a Dust Control Plan, associated with a Non-Title V Permit or with a 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 220 and Rule 210 of these rules respectively, no later than 6 months after the effective date of the most recent revisions to this rule.~~ The owner and/or operator of a dust generating operation shall submit to the Control Officer a Dust Control Plan with any application for a Dust Control permit. Applicants shall describe, in a Dust Control Plan, all control measures to be implemented before, after, and while conducting any dust generating operation, including during weekends, after work hours, and on holidays.

**402.3** A Dust Control Plan shall, at a minimum, contain all of the following information:

**a.** Name(s), address(es), and phone numbers of person(s) responsible for the submittal and implementation of the Dust Control Plan and responsible for the dust generating operation.

**b.** A drawing, on 8½" x 11" paper, that shows:

**(1)** Entire project site/facility boundaries,

**(2)** Acres to be disturbed with linear dimensions,

**(3)** Nearest public roads,

**(4)** North arrow, and

**(5)** Planned exit locations onto paved areas accessible to the public.

**c.** Appropriate control measures, or a combination thereof, as described in Section 305 and Section 306 of this rule, for every actual and potential dust generating operation.

**(1)** Control measures must be implemented before, after, and while conducting any dust generating operation, including during weekends, after work hours, and on holidays.

**(2)** All required control measures and at least one contingency control measure must be identified for all dust generating operations.

**(3)** A control measure that is not listed in Section 305 or in Section 306 of this rule may be chosen provided that such control measure is implemented to comply with the requirements described in Section 301 of this rule.

**(4)** If complying with Section 305.7-Control Measures For Dust Generating Operations-Unpaved Haul/Access Roads of this rule, the Dust Control Plan must include the maximum number of vehicle trips on the unpaved haul/access roads each day (including number of employee vehicles, earthmoving equipment, haul trucks, and water trucks).

**d.** Dust suppressants to be applied, including all of the following product specifications or label instructions for approved usage:

**(1)** Method, frequency, and intensity of application;

**(2)** Type, number, and capacity of application equipment; and

**(3)** Information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application.

**e.** Specific surface treatment(s) and/or control measures utilized to control material trackout and sedimentation where unpaved roads and/or access points join paved areas accessible to the public.

**402.4** The Control Officer shall approve, disapprove, or conditionally approve the Dust Control Plan, in accordance with the criteria used to approve, disapprove or conditionally approve a permit, as described in Rule 200-Permit Requirements of these rules. Failure to comply with the provisions of an approved Dust Control Plan is deemed a violation of this rule.

**402.5** For construction projects one acre or larger, except for routine maintenance and repair done under a Dust Control permit-Block permit, a statement disclosing which of the four designated texture(s) of soil described in Appendix F of these rules is naturally present at or will be imported to the dust generating operation. The measured soil content at a particular site shall take precedence over any mapped soil types, and whenever soils have been tested at a particular site, the test results should be relied on rather than the map in Appendix F of these rules.

**402.6** Should any primary control measure(s) prove ineffective, the owner and/or operator shall immediately implement the contingency control measure(s). If the identified contingency control measure is effective to comply with all of the requirements of this rule, the owner and/or operator need not revise the Dust Control Plan.

## 403 DUST CONTROL PLAN REVISIONS:

### 403.1 If Required By The Control Officer:

**a.** If the Control Officer determines that an approved Dust Control Plan has been followed, yet fugitive dust emissions from any dust generating operation still exceed the standards of this rule, then the Control Officer shall issue a written notice to the owner and/or operator of the dust generating operation explaining such determination.

**b.** The owner and/or operator of a dust generating operation shall make written revisions to the Dust Control Plan and shall submit such revised Dust Control Plan to the Control Officer within three working days of receipt of the Control Officer's written notice, unless such time period is extended by the Control Officer, upon

request, for good cause. During the time that such owner and/or operator is preparing revisions to the approved Dust Control Plan, such owner and/or operator must still comply with all requirements of this rule.

**403.2 If Requested By The Permittee:**

**a.** If the acreage of a project changes, the owner and/or operator shall request a Dust Control Plan revision. Such Dust Control Plan revision shall be filed in the manner and form prescribed by the Control Officer.

**b.** If the permit holder changes, the owner and/or operator shall request a Dust Control Plan revision. Such Dust Control Plan revision shall be filed in the manner and form prescribed by the Control Officer.

**c.** If the name(s), address(es), or phone numbers of person(s) responsible for the submittal and implementation of the Dust Control Plan and responsible for the dust generating operation change, the the owner and/or operator shall request a Dust Control Plan revision. Such Dust Control Plan revision shall be filed in the manner and form prescribed by the Control Officer.

**d.** If the activities related to the purposes for which the Dust Control permit was obtained change, the owner and/or operator shall request a Dust Control Plan revision. Such Dust Control Plan revision shall be filed in the manner and form prescribed by the Control Officer.

**403.3 If Rule 310 Is Revised:**

**a.** If any changes to a Dust Control Plan are necessary as a result of the most recent revisions of this rule, such changes to the Dust Control Plan shall not be required until the associated Dust Control permit is required to be renewed.

**b.** 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 these rules respectively, no later than six months after the effective date of the most recent revisions to this rule.

## 404 DUST CONTROL PERMIT-BLOCK PERMIT REQUIREMENTS:

**404.1** A Dust Control permit-Block permit application may be submitted to the Control Officer, if one or more of the activities listed in this section of this rule are conducted and if such activities occur at more than one site (i.e., projects that involve multiple small areas scattered throughout Maricopa County, including but not limited to, fiber optic cable installation and natural gas line extension). New construction shall obtain a separate Dust Control permit.

**a.** Routine operation (i.e., municipalities, governmental agencies, and utilities that are responsible for the repeat maintenance of infrastructure, including but not limited to, weed control around a prison, canal bank and road grading, and road shoulder grading).

**b.** Maintenance (i.e., municipalities, governmental agencies, and utilities that are responsible for the repeat maintenance of infrastructure, including but not limited to, weed control around a prison, canal bank and road grading, and road shoulder grading).

**c.** Expansion or extension of utilities, paved roads, unpaved roads, road shoulders, alleys, and public rights-of-way at non-contiguous sites by municipalities, governmental agencies, and utilities.

**404.2** When completing and submitting a Dust Control permit-Block permit application, the owner and/or operator shall comply with the following requirements:

**a.** A Dust Control Plan that meets the criteria described in Section 402 of this rule and applies to all sites shall be submitted to the Control Officer with the Dust Control permit-Block permit application.

**b.** A list of all sites, including the location and size of each site, shall be submitted to the Control Officer with the Dust Control permit-Block permit application.

**c.** For any project not listed in the Dust Control permit-Block permit application, the applicant shall notify the Control Officer in writing at least three working days prior to commencing the dust generating operation. The notice shall include the site location, size, type of activity, and start date.

**404.3** The Dust Control permit-Block permit will cover crews that work for the municipalities, governmental agencies, and utilities, including subcontractors. However, municipalities, governmental agencies, and utilities shall retain overall authority for dust control on the project.

**405** **APPROVAL OR DENIAL OF PERMIT APPLICATIONS FOR DUST GENERATING OPERATIONS:** The Control Officer shall take final action on a Dust Control permit application, a Dust Control permit revision, or a Dust Control permit-block permit within 14 calendar days of the filing of the complete application. The Control Officer shall notify the applicant in writing of his approval or denial.

**406** **TERMS FOR PERMITS FOR DUST GENERATING OPERATIONS:** A Dust Control permit issued according to this rule shall be issued for a period of one year from the date of issuance. Should the project last longer than one year from the date the permit was issued, the permittee shall re-apply for a Dust Control Permit at least 14 calendar days prior to the expiration date of the original permit.

**407** **DEFACING, ALTERING, FORGING, COUNTERFEITING, OR FALSIFYING PERMITS FOR DUST GENERATING OPERATIONS:** A person shall not willfully deface, alter, forge, counterfeit, or falsify any Dust Control permit issued under the provisions of this rule.

**408** **FEES FOR PERMITS FOR DUST GENERATING OPERATIONS:** No Dust Control permit is valid until the applicable Dust Control permit fee has been received and until the Dust Control permit is issued by the Control Officer.

**409** **POSTING OF PERMITS FOR DUST GENERATING OPERATIONS:** A Dust Control permit and a Dust Control Plan, as approved by the Control Officer, shall be posted in a conspicuous location at the work site, within on-site equipment, or in an on-site vehicle, or shall otherwise be kept available on-site at all times.

**410** **COMPLIANCE SCHEDULE:** The newly amended provisions of this rule shall become effective upon adoption of this rule. An owner and/or operator of a dust generating operation subject to this rule shall meet all applicable provisions of this rule upon adoption of the newly amended provisions of this rule and according to the following schedule:

**410.1** **Basic Dust Control Training Class:** No later than December 31, 2008, a site superintendent or other designated on-site representative of the permit holder and water truck and water pull drivers for each site shall have successfully completed the Basic Dust Control Training Class, as described in Section 309.1 of this rule.

**410.2** **Dust Control Coordinator**: No later than June 30, 2008, any site and/or any contiguous site under common control of five acres or more of disturbed surface area subject to a permit shall, at all times during primary dust generating operations related to the purposes for which the Dust Control permit was obtained, have on-site at least one individual designated by the permit holder as a Dust Control Coordinator, as described in Section 310 of this rule.

**SECTION 500 - MONITORING AND RECORDS**

**501** **COMPLIANCE DETERMINATION:** To determine compliance with the visible emissions requirements in Section 303 of this rule and with the stabilization requirements in Section 304 of this rule, the following test methods shall be followed:

**501.1 Opacity Observations:**

**a.** **Dust Generating Operations:** Opacity observations ~~of a source engaging in~~ of dust generating operations shall be conducted in accordance with Appendix C, Section 3-Time Averaged Methods Of Visual Opacity Determination Of Emissions From Dust Generating Operations of these rules.

**b.** **Unpaved Parking Lot:** Opacity observations of any unpaved parking lot shall be conducted in accordance with Appendix C, Section 2.1-Test Methods For Stabilization For Unpaved Roads And Unpaved Parking Lots of these rules.

**c.** **Unpaved Haul/Access Road:** Opacity observations of any unpaved haul/access road (whether at a work site that is under construction or at a work site that is temporarily or permanently inactive) shall be conducted in accordance with Appendix C, Section 2.1-Test Methods For Stabilization For Unpaved Roads And Unpaved Parking Lots of these rules.

**d.** **Visible Emissions Beyond The Property Line:** Opacity observations of any visible emissions beyond the property line shall be conducted in accordance with EPA Reference Method 22.

**501.2 Stabilization Observations:**

**a.** **Unpaved Parking Lot:** Stabilization observations for unpaved parking lots shall be conducted in accordance with Appendix C, Section 2.1-Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots of these rules. When more than ~~1~~ one test method is permitted for a determination, an exceedance of the limits established in this rule determined by any of the applicable test methods ~~constitutes~~ shall constitute a violation of this rule.

**b.** **Unpaved Haul/Access Road:** Stabilization observations for unpaved haul/access roads (whether at a work site that is under construction or at a work site that is temporarily or permanently inactive) shall be conducted in accordance with Appendix C, Section 2.1-Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots of these rule. When more than ~~1~~ one test method is permitted for a determination, an exceedance of the limits established in this rule determined by any of the applicable test methods ~~constitutes~~ shall constitute a violation of this rule.

**c.** ~~Open Area And Vacant Lot~~ **Disturbed Surface Area:** Stabilization observations for ~~an open area and vacant lot or~~ any disturbed surface area on which no activity is occurring (whether at a work site that is under construction, at a work site that is temporarily or permanently inactive) shall be conducted in accordance with at least one of the techniques described in ~~subsection~~ Section 501.2(c)(1) through ~~subsection~~ Section 501.2(c)(7) below, as applicable. The owner and/or operator of such inactive disturbed surface area shall be considered in violation of this rule if such inactive disturbed surface area is not maintained in a manner that meets at least ~~1~~ one of the standards described in ~~subsection 302.3~~ Section 304.3 of this rule, as applicable.

**(1)** Appendix C, Section 2.3-Test Methods For Stabilization-~~Visible~~ Soil Crust Determination-The Drop Ball~~/Steel Ball~~ Test of these rules for a visible crust; or

**(2)** Appendix C, Section 2.4-Test Methods For Stabilization-Determination Of Threshold Friction Velocity (TFV)-Sieving Field Procedure of these rules for threshold friction velocity (TFV) corrected for non-erodible elements of 100 cm/second or higher; or

**(3)** Appendix C, Section 2.5-Test Methods For Stabilization-Determination Of Flat Vegetative Cover of these rules for flat vegetation 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%; or

**(4)** Appendix C, Section 2.6-Test Methods For Stabilization-Determination Of Standing Vegetative Cover of these rules for standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%; or

**(5)** Appendix C, Section 2.6-Test Methods For Stabilization-Determination Of Standing Vegetative Cover of these rules for standing vegetation 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

**(6)** Appendix C, Section 2.7-Test Methods For Stabilization-Rock Test Method of these rules for a percent cover that is equal to or greater than 10%, for non-erodible elements; or

**(7)** An alternative and equivalent test method approved in writing by the Control Officer and the Administrator ~~of the EPA~~.

## 502 RECORDKEEPING:

**502.1** Any person who conducts dust generating operations that require a Dust Control Plan shall keep ~~a daily written log~~ a written record of self-inspection on each day dust generating operations are conducted. Self-inspection records shall include daily inspections for crusted or damp soil, trackout conditions and clean-up measures, daily water usage, and dust suppressant application. Such written record shall also include the ~~actual application or implementation of the control measures delineated in the approved Dust Control Plan (including records on any street sweeping, water applications, and maintenance of trackout control devices, gravel pads, fences, wind barriers, and tarps).~~ following information:

**a.** Method, frequency, and intensity of application or implementation of the control measures;

**b.** Method, frequency, and amount of water application to the site;

**c.** Street sweeping frequency;

**d.** Types of surface treatments applied to and maintenance of trackout control devices, gravel pads, fences, wind barriers, and tarps;

**e.** Types and results of test methods conducted;

**f.** If contingency control measures are implemented, actual application or implementation of contingency control measures and why contingency control measures were implemented;

**g.** List of subcontractors' names and registration numbers updated when changes are made; and

**h.** Names of employee(s) who successfully completed dust control training class(es) required by Section 309 of this rule, date of the class(es) that such employee(s) successfully completed, and name of the agency/representative who conducted such class(es).

**502.2** Any person who conducts dust generating operations that do not require a Dust Control Plan shall compile and retain records (including records on any street sweeping, water applications, and maintenance of trackout control devices, gravel pads, fences, wind barriers, and tarps) that provide evidence of control measure application, by indicating the type of treatment or control measure, extent of coverage, and date applied.

**502.3** Upon verbal or written request by the Control Officer, the log or the records and supporting documentation shall be provided ~~within~~ as soon as possible but no later than 48 hours, excluding weekends. If the Control Officer is at the site where requested records are kept, records shall be provided without delay.

**503** **RECORDS RETENTION:** ~~Copies~~ Any person who conducts dust generating operations that require a Dust Control Plan shall retain copies of approved Dust Control Plans, control measures implementation records, and all supporting documentation ~~shall be retained~~ for at least six months following the termination of the dust generating operation and for at least two years from the date such records were initiated. ~~Copies of approved Dust Control Plans, control measures implementation records, and all supporting documentation shall be retained for at least 1 year from the date such records were initiated.~~ If a person has obtained a Title V Permit and is subject to the requirements of this rule, then such person shall retain records required by this rule for at least ~~5~~ five years from the date such records are established.

**504** **TEST METHODS ADOPTED BY REFERENCE:** The test methods listed in this section are adopted by reference. These adoptions by reference include no future editions or amendments. Copies of the test methods listed in this section are available for review at the ~~Maricopa County Environmental Services Department~~ Maricopa County Air Quality Department, 1001 North Central Avenue, Phoenix, AZ, 85004-1942.

**504.1** ASTM Method ~~C136-96A~~ C136-06 ("Standard Test Method For Sieve Analysis Of Fine And Coarse Aggregates"), ~~1996~~ 2006 edition.

**504.2** ASTM Method ~~D2216-98~~ D2216-05 ("Standard Test Method For Laboratory Determination Of Water (Moisture) Content Of Soil And Rock By Mass"), ~~1998~~ 2005 edition.

**504.3** ASTM Method ~~D1557-91(1998)~~ D1557-02e1 ("Test Method For Laboratory Compaction Characteristics Of Soil Using Modified Effort (56,000 ft-lbf/$ft^3$ (2,700 kN-m/$m^3$)"), ~~1998~~ 2002 edition.

**504.4** EPA Reference Method 22 ("Visual Determination Of Fugitive Emissions From Material Sources And Smoke Emissions From Flares"), 2000 edition.

~~Table 1~~

~~Vehicle Use In Open Areas And Vacant Lots~~

~~a. An owner and/or operator must implement one of the following control measures:~~

~~1. Restrict trespass by installing signs; or~~

~~2. Install physical barriers such as curbs, fences, gates, posts, signs, shrubs, and/or trees to prevent access to the area.~~

~~Table 2~~

~~Unpaved Parking Lots~~

~~a. An owner and/or operator must implement one of the following control measures:~~

~~1. Pave;~~

~~2. Apply and maintain gravel, recycled asphalt, or other suitable material, in compliance with Section 302.1 of this rule; or~~

~~3. Apply a suitable dust suppressant in compliance with Section 302.1 of this rule.~~

~~b. Suggested additional control measure for contingency plans:~~

~~1. Limit vehicle speeds to 15 m.p.h. on the site.~~

~~Table 3~~

~~Unpaved Haul/Access Roads~~

~~a. An owner and/or operator must implement one of the following control measures:~~

~~1. Limit vehicle speed to 15 m.p.h or less and limit vehicular trips to no more than 20 day;~~

~~2. Apply water, so that the surface is visibly moist in compliance with Section 302.2 of this rule;~~

~~3. Pave;~~

~~4. Apply and maintain gravel, recycled asphalt, or other suitable material, in compliance with Section 302.2 of this rule; or~~

~~5. Apply a suitable dust suppressant, in compliance with Section 302.2 of this rule.~~

~~Table 4~~

~~Open Areas And Vacant Lots~~

~~a. An owner and/or operator must implement one of the following control measures to comply with Section 302.3 of this rule:~~

~~1. Pave, apply gravel, or apply a suitable dust suppressant;~~

~~2. Establish vegetative ground cover in sufficient quantity; or~~

~~3. Restore area such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions.~~

~~Table 5~~

~~Disturbed Surface Areas – Pre-Activity Work Practices~~

~~a. Before activity begins, an owner and/or operator must implement one of the following control measures:~~

~~1. Pre-water site to depth of cuts, allowing time for penetration; or~~

~~2. Phase work to reduce the amount of disturbed surface areas at any one time.~~

~~Table 6~~

~~Disturbed Surface Areas – Work Practices During Operations~~

~~a. During operations, an owner and/or operator must implement one of the following control measures:~~

~~1. Apply water or other suitable dust suppressant, in compliance with Section 301 of this rule;~~

~~2. Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98 or other equivalent method as approved by the Control Officer and the Administrator of EPA. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91 (1998) or other equivalent method approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content; or~~

3. ~~Implement (a)(1) or (a)(2) above and 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 a site.~~

b. ~~Suggested additional control measure for contingency plans:~~
   1. ~~Limit vehicle speeds to 15 m.p.h on the work site.~~

~~Table 7~~
~~Disturbed Surface Areas – Temporary Stabilization (Up To 8 Months)~~
~~During Weekends, After Work Hours, And On Holidays~~

a. ~~An owner and/or operator must implement one of the following control measures to comply with Section 302.3 of this rule:~~
   1. ~~Pave, apply gravel, or apply a suitable dust suppressant;~~
   2. ~~Establish vegetative ground cover in sufficient quantity; or~~
   3. ~~Implement (a)(1) or (a)(2), above, and restrict vehicular access to the area.~~

~~Table 8~~
~~Disturbed Surface Areas – Permanent Stabilization~~
~~(Required Within 8 Months Of Ceasing Dust Generating Operations)~~

a. ~~An owner and/or operator must implement one of the following control measures to comply with Section 302.3 of this rule:~~
   1. ~~Pave, apply gravel, or apply a suitable dust suppressant;~~
   2. ~~Establish vegetative ground cover in sufficient quantity; or~~
   3. ~~Restore area such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions.~~

~~Table 9~~
~~Blasting Operations~~

a. ~~An owner and/or operator must implement all of the following control measures:~~
   1. ~~In wind gusts above 25 m.p.h., discontinue blasting; and~~
   2. ~~Pre-water and maintain surface soils in a stabilized condition where support equipment and vehicles will operate.~~

~~Table 10~~
~~Demolition Activities~~

a. ~~An owner and/or operator must implement all of the following control measures:~~
   1. ~~Stabilize demolition debris. Apply water to debris immediately following demolition activity; and~~
   2. ~~Stabilize surrounding area immediately following demolition activity. Water all disturbed soil surfaces to establish a crust and prevent wind erosion of soil.~~

b. ~~Suggested additional control measure for contingency plans:~~
   1. ~~Thoroughly clean blast debris from paved and other surfaces following demolition activity.~~

~~Table 11~~
~~Bulk Material Handling Operations~~
~~Work Practices For Stacking, Loading, And Unloading Operations~~

a. ~~An owner and/or operator must implement one of the following control measures:~~
   1. ~~Spray material with water, as necessary, prior to stacking, loading, and unloading, and/or while stacking, loading, and unloading;~~
   2. ~~Spray material with a dust suppressant other than water, as necessary, prior to stacking, loading, and unloading, and/or while stacking, loading, and unloading.~~

b. ~~Suggested additional control measures for contingency plans:~~
   1. ~~Pre-water and maintain surface soils in a stabilized condition where support equipment and vehicles will operate.~~
   2. ~~Remove material from the downwind side of the storage pile when safe to do so.~~

3. ~~Empty loader bucket slowly and keep loader bucket close to the truck to minimize the drop height while dumping.~~

~~Table 12~~
~~Open Storage Piles~~
~~When Not Conducting Stacking, Loading, And Unloading Operations~~

a. ~~An owner and/or operator must implement one of the following control measures:~~
   1. ~~Cover open storage piles with tarps, plastic, or other material such that the coverings will not be dislodged by wind;~~
   2. ~~Apply water to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98, or other equivalent methods approved by the Control Officer and the Administrator of the EPA; or for areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91 (1998) or other equivalent methods approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the soil moisture content;~~
   3. ~~Meet the stabilization requirements described in Section 302.3 of this rule; or~~
   4. ~~Implement (a)(2) or (a)(3), above, and construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, 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%.~~

~~Table 13~~
~~Bulk Material Hauling/Transporting Within The Boundaries Of The Work Site~~
~~When Crossing A Paved Area Accessible To The Public~~
~~While Construction Is Underway~~

a. ~~An owner and/or operator must implement all of the following control measures:~~
   1. ~~Load all haul trucks such that the freeboard is not less than 3 inches when crossing a paved area accessible to the public while construction is underway;~~
   2. ~~Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s);~~
   3. ~~Install 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 such work site.~~
b. ~~Suggested additional control measure for contingency plans:~~
   1. ~~Limit vehicle speeds to 15 m.p.h. on the work site.~~

~~Table 14~~
~~Bulk Material Hauling/Transporting When On-Site Hauling/Transporting~~
~~Within The Boundaries Of The Work Site But Not Crossing~~
~~A Paved Area Accessible To The Public~~

a. ~~An owner and/or operator must implement one of the following control measures:~~
   1. ~~Limit vehicular speeds to 15 m.p.h. or less while traveling on the work site;~~
   2. ~~Apply water to the top of the load in compliance with Section 301 of this rule; or~~
   3. ~~Cover haul trucks with a tarp or other suitable closure.~~

~~Table 15~~
~~Bulk Material Hauling/Transporting Off-Site Hauling/Transporting~~
~~Onto Paved Areas Accessible To The Public~~

a. ~~An owner and/or operator must implement all of the following control measures:~~
   1. ~~Cover haul trucks with a tarp or other suitable closure;~~
   2. ~~Load all haul trucks such that the freeboard is not less than 3 inches;~~
   3. ~~Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and~~
   4. ~~Before the empty haul truck leaves the site, clean the interior of the cargo compartment or cover the cargo compartment.~~

~~Table 16~~

~~Clean Up Of Trackout, Carry Out, Spillage, And Erosion~~

~~a. An owner and/or operator must implement one of the following control measures:~~

~~1. Operate a street sweeper or wet broom with sufficient water, at the speed recommended by the manufacturer and at the frequency(ies) described in Section 308.3 of this rule; or~~

~~2. Manually sweep up deposits in compliance with Section 308.3 of this rule.~~

~~Table 17~~

~~Trackout Control~~

~~a. An owner and/or operator must implement all of the following control measures:~~

~~1. Immediately clean up trackout that exceeds 50 feet. All other trackout must be cleaned up at the end of the workday; and~~

~~2. In accordance with Section 308.3(a), prevent trackout by implementing one of the following control measures:~~

~~i. At all access points, install a grizzly or wheel wash system.~~

~~ii. At all access points, install a gravel pad at least 30 feet wide, 50 feet long, and 6 inches deep, in compliance with Section 213 of this rule.~~

~~iii. 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.~~

~~b. Suggested additional control measures for contingency plans:~~

~~1. Clearly establish and enforce traffic patterns to route traffic over selected trackout control devices.~~

~~2. Limit site accessibility to routes with trackout control devices in place by installing effective barriers on unprotected routes.~~

~~3. Pave construction activity roadways as soon as possible.~~

~~Table 18~~

~~Weed Abatement By Discing Or Blading~~

~~a. An owner and/or operator must implement all of the following control measures:~~

~~1. Pre-water site;~~

~~2. Apply water while weed abatement by discing or blading is occurring; and~~

~~3. Stabilize area by implementing either one of the following:~~

~~i. Pave, apply gravel, apply water, or apply a suitable dust suppressant, in compliance with Section 302.3 of this rule, after weed abatement by discing or blading occurs; or~~

~~ii. Establish vegetative ground cover in sufficient quantity, in compliance with Section 302.3 of this rule, after weed abatement by discing or blading occurs.~~

~~b. Suggested additional control measures for contingency plans~~

~~1. Limit vehicle speeds to 15 m.p.h. during discing and blading operations.~~

~~Table 19~~

~~Easements, Rights-Of-Way, And Access Roads For Utilities (Electricity, Natural Gas, Oil, Water, And Gas Transmission) Associated With Sources~~

~~That Have A Non-Title V Permit, A Title V Permit,~~

~~And/Or A General Permit Under These Rules~~

~~a. An owner and/or operator must implement one of the following control measures:~~

~~1. Inside the PM10 nonattainment area, restrict vehicular speeds to 15 m.p.h. and vehicular trips to no more than 20 per day per road;~~

~~2. Outside the PM10 nonattainment area, restrict vehicular trips to no more than 20 per day per road; or~~

~~3. Implement control measures, as described in Table 3 (Unpaved Haul/Access Roads) of this rule.~~

~~Note: For Tables 20 & 21, control measures in [brackets] are to be applied only to dust generating operations outside the nonattainment area.~~

~~Table 20~~

~~Wind Event Control Measures-Dust Generating Operations~~

~~a. An owner and/or operator must implement one of the following control measures:~~

~~1. Cease dust generating operations for the duration of the condition/situation/event when the 60-minute average wind speed is greater than 25 m.p.h. and if dust generating operations are ceased for the remainder of the work-day, stabilize the area;~~

~~2. Apply water or other suitable dust suppressant at least twice [once] per hour, in compliance with Section 301 of this rule;~~

~~3. Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98 or other equivalent method as approved by the Control Officer and the Administrator of EPA. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91 (1998) or other equivalent method approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content; or~~

~~4. Implement (a)(2) or (a)(3), above, and 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 wind-blown material leaving a site.~~

~~Table 21~~

~~Wind Event Control Measures-Temporary Disturbed Surface Areas~~

~~(After Work Hours, Weekends, Holidays)~~

~~a. An owner and/or operator must implement one of the following control measures:~~

~~1. Uniformly apply and maintain surface gravel or dust suppressants, in compliance with Section 302.3 of this rule;~~

~~2. Apply water to all disturbed surface areas 3 times per day. If there is any evidence of wind-blown dust, increase watering frequency to a minimum of 4 times per day;~~

~~3. Apply water on open storage piles at least twice [once] per hour, in compliance with Section 302.3 of this rule; or~~

~~4. Cover open storage piles with tarps, plastic, or other material such that wind will not remove the covering(s).~~

~~b. Suggested additional control measures for contingency plans:~~

~~1. Implement a combination of the control measures listed in (a)(1) through (a)(4), above.~~

## REGULATION III - CONTROL OF AIR CONTAMINANTS

## RULE 310.01
## FUGITIVE DUST FROM
## ~~OPEN AREAS, VACANT LOTS, UNPAVED PARKING LOTS, AND UNPAVED ROADWAYS~~
## NON-TRADITIONAL SOURCES OF FUGITIVE DUST
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Adopted 06/16/99
Revised 02/16/00
Revised 02/17/05

**MARICOPA COUNTY**
**AIR POLLUTION CONTROL REGULATIONS**
**REGULATION III - CONTROL OF AIR CONTAMINANTS**
**RULE 310.01**
**FUGITIVE DUST FROM**
~~OPEN AREAS, VACANT LOTS, UNPAVED PARKING LOTS, AND UNPAVED ROADWAYS~~
**NON-TRADITIONAL SOURCES OF FUGITIVE DUST**

**SECTION 100 - GENERAL**

**101** **PURPOSE:** ~~To limit the emission of particulate matter into the ambient air from open areas, vacant lots, unpaved parking lots, and unpaved roadways which are not regulated by Rule 310-Fugitive Dust of these rules, and which do not require a permit nor a Dust Control Plan. The effect of this rule shall be to fine particulate matter ($PM_{10}$) entrained into the ambient air as a result of the impact of human activities by requiring measures to prevent, reduce, or mitigate particulate matter emissions.~~ To minimize the amount of fugitive dust entrained into the ambient air from non-traditional sources of fugitive dust by requiring measures to prevent, reduce, or mitigate fugitive dust emissions.

**102** **APPLICABILITY:** ~~The provisions of this rule shall apply to open areas, vacant lots, unpaved parking lots, and unpaved roadways which are not regulated by Rule 310-Fugitive Dust of these rules and which do not require a permit nor a Dust Control Plan. In addition, the provisions of this rule shall apply to any open area or vacant lot that is not defined as agricultural land and is not used for agricultural purposes according to Arizona Revised Statutes (A.R.S.) § 42-12151 and A.R.S. § 42-12152. The provisions of this rule shall not apply to normal farm cultural practices according to A.R.S. § 49-457 and A.R.S. § 49-504.4.~~

**102.1** The provisions of this rule shall apply to non-traditional sources of fugitive dust that are conducted in Maricopa County, except for those dust generating operations listed in Section 103 of this rule.

**102.2** The provisions of this rule shall apply to any open area or vacant lot that is not defined as agricultural land and is not used for agricultural purposes according to Arizona Revised Statutes (A.R.S.) § 42-12151 and A.R.S. § 42-12152.

**103** **EXEMPTIONS:**

**103.1** The provisions of this rule shall not apply to normal farm cultural practices according to A.R.S. § 49-457 and A.R.S. § 49-504.4.

**103.2** The provisions of this rule shall not apply to dust generating operations that are subject to the standards and/or requirements described in Rule 310-Fugitive Dust From Dust Generating Operations of these rules.

**103.3** The provisions of this rule shall not apply to emergency activities that may disturb the soil conducted by any utility or government agency in order to prevent public injury or to restore critical utilities to functional status.

**103.4** An area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in this rule.

**103.5** Establishing initial landscapes without the use of mechanized equipment, conducting landscape maintenance without the use of mechanized equipment, and playing on or maintaining a field used for non-motorized sports shall not be considered a dust generating operation. However, establishing initial landscapes without the use of mechanized equipment and conducting landscape maintenance without the use of mechanized equipment shall not include grading, or trenching, performed to establish initial landscapes or to redesign existing landscapes.

**103.6** Fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III (Control Of Air Contaminants) of these rules.

**SECTION 200 - DEFINITIONS:** See Rule 100-General Provisions And Definitions of these rules for definitions of terms that are used but not specifically defined in this rule. For the purpose of this rule, the following definitions shall apply:

**201** **ANIMAL WASTE -** Any animal excretions and mixtures containing animal excretions.

**202** **AREA A -** As defined in A.R.S. § 49-541(1), the area in Maricopa County delineated as follows:
Township 8 North, Range 2 East and Range 3 East
Township 7 North, Range 2 West through Range 5 East
Township 6 North, Range 5 West through Range 6 East
Township 5 North, Range 5 West through Range 7 East
Township 4 North, Range 5 West through Range 8 East
Township 3 North, Range 5 West through Range 8 East
Township 2 North, Range 5 West through Range 8 East
Township 1 North, Range 5 West through Range 7 East
Township 1 South, Range 5 West through Range 7 East
Township 2 South, Range 5 West through Range 7 East
Township 3 South, Range 5 West through Range 1 East
Township 4 South, Range 5 West through Range 1 East

**203** **AREA ACCESSIBLE TO THE PUBLIC** – Any parking lot or public roadway that can be approached, entered, or used for public travel primarily for purposes unrelated to the dust generating operation.

~~201~~**204** **BULK MATERIAL -** Any material, including, but not limited to, the following materials ~~earth, rock, silt, sediment, sand, gravel, soil, fill, aggregate less than 2 inches in length or diameter (i.e., aggregate base course (ABC)), earth, soil, dirt, mud, demolition debris, cotton, trash, cinders, pumice, rock, saw dust, feeds, grains, fertilizers, fluff (from shredders), and dry concrete,~~ that are capable of producing fugitive dust.:

**204.1** Earth
**204.2** Rock
**204.3** Silt
**204.4** Sediment
**204.5** Sand
**204.6** Gravel
**204.7** Soil
**204.8** Fill
**204.9** Aggregate less than 2 inches in length or diameter (i.e., aggregate base course [ABC]
**204.10** Dirt
**204.11** Mud
**204.12** Demolition debris
**204.13** Cotton

**204.14** Trash
**204.15** Cinders
**204.16** Pumice
**204.17** Saw dust
**204.18** Feeds
**204.19** Grains
**204.20** Fertilizers
**204.21** Fluff from shredders
**204.22** Dry concrete

~~202~~**205** **CHEMICAL/ORGANIC STABILIZER** - Any non-toxic chemical or organic dust suppressant, other than water, which meets any specifications, criteria, or tests required by any Federal, State, or local water agency and is not prohibited for use by any applicable law, rule, or regulation.

~~203~~**206** **CONTROL MEASURE -** A technique, practice, or procedure used to prevent or minimize the generation, emission, entrainment, suspension, and/or airborne transport of fugitive dust.

~~204~~**207** **DISTURBED SURFACE AREA** – A portion of the earth's surface ~~(or material placed thereupon) which~~ or material placed on the earth's surface that has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition~~, thereby increasing the potential for the emission of fugitive dust.~~ if the potential for the emission of fugitive dust is increased by the movement, destabilization, or modification. ~~For the purpose of this rule, an area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in Section 300 of this rule.~~

**208** **DUST GENERATING OPERATION** - Any activity capable of generating fugitive dust, including but not limited to, the following activities:
**208.1** Land clearing, maintenance, and land cleanup using mechanized equipment
**208.2** Earthmoving
**208.3** Weed abatement by discing or blading
**208.4** Excavating
**208.5** Construction
**208.6** Demolition
**208.7** Bulk material handling (e.g., bulk material hauling and/or transporting, bulk material stacking, loading, and unloading operations)
**208.8** Storage and/or transporting operations (e.g., open storage piles, bulk material hauling and/or transporting, bulk material stacking, loading, and unloading operations)
**208.9** Operation of any outdoor equipment
**208.10** Operation of motorized machinery
**208.11** Establishing and/or using staging areas, parking areas, material storage areas, or access routes to and from a site
**208.12** Establishing and/or using unpaved haul/access roads to, from, and within a site
**208.13** Disturbed surface areas associated with a site
**208.14** Installing initial landscapes using mechanized equipment

~~205~~**209** **DUST SUPPRESSANT -** 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.

**210** **EMERGENCY** - A situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a limitation in this rule, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not

include any noncompliance due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

**211** **EMERGENCY ACTIVITY** - Repairs that are a result of an emergency which prevents or hinders the provision of electricity, the distribution/collection of water, and the availability of other utilities due to unforeseen circumstances that are beyond the routine maintenance and repair due to normal wear conducted by a utility or municipality.

**212** **FEED LANE ACCESS AREAS** - Roads providing access from the feed preparation areas to and including feed land areas at a livestock activity. These access roads are typically used to distribute feed from feed trucks to the animals.

~~206 FEEDLOTS AND/OR LIVESTOCK AREAS - Any area on which an operation directly related to feeding animals, displaying animals, racing animals, exercising animals, and/or for any other such activity exists.~~

~~207~~**213** **FUGITIVE DUST** - The particulate matter not collected by a capture system, that is entrained in the ambient air and is caused from human and/or natural activities, such as, but not limited to, movement of soil, vehicles, equipment, blasting, and wind. ~~For the purpose of this rule, fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III (Control Of Air Contaminants) of these rules.~~

**214** **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. A gravel pad shall consist of one inch to 3 inches rough diameter, clean, well-graded gravel or crushed rock. Minimum dimensions must be 30 feet wide by 3 inches deep, and, at minimum, 50 feet long or the length of the longest haul truck, whichever is greater.

**215** **GRIZZLY -** 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.

**216** **LIVESTOCK ACTIVITIES** - Any activity directly related to feeding animals, displaying animals, racing animals, exercising animals, and/or for any other such activity, including but not limited to, livestock arenas, horse arenas, and feed lots.

~~208~~**217** **MOTOR VEHICLE -** A self-propelled vehicle for use on the public roads and highways of the State of Arizona and required to be registered under the Arizona State Uniform Motor Vehicle Act, including any non-motorized attachments, such as but not limited to, trailers or other conveyances which are connected to or propelled by the actual motorized portion of the vehicle.

**218** **NON-TRADITIONAL SOURCE OF FUGITIVE DUST** - A source of fugitive dust that is located at a source that does not require any permit under these rules. The following non-traditional sources of fugitive dust are subject to the standards and/or requirements described in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust of these rules:

**218.1** Vehicle use in open areas and vacant lots
**218.2** Open areas and vacant lots
**218.3** Unpaved parking lots
**218.4** Unpaved roadways (including alleys)
**218.5** Livestock activities
**218.6** Erosion-caused deposition of bulk materials onto paved surfaces
**218.7** Easements, rights-of-way, and access roads for utilities (electricity, natural gas, oil, water, and gas transmission)

~~209~~**219** **NORMAL FARM CULTURAL PRACTICE -** All activities by the owner, lessee, agent, independent contractor, and/or supplier conducted on any facility for the production of crops and/or nursery plants. Disturbances of the field surface caused by turning under stalks, tilling, leveling, planting, fertilizing, or harvesting are included in this definition.

~~210~~**220** **OFF-ROAD VEHICLE -** Any self-propelled conveyance specifically designed for off-road use, including, but not limited to, off-road or all-terrain equipment, trucks, cars, motorcycles, motorbikes, or motorbuggies.

~~211~~**221** **OPEN AREAS AND VACANT LOTS -** Any of the following described in ~~Section 211.1~~ Section 221.1 through ~~Section 211.4~~ Section 221.3 of this rule. For the purpose of this rule, vacant portions of residential or commercial lots that are immediately adjacent and owned and/or operated by the same individual or entity are considered one vacant open area or vacant lot.

~~211.1~~**221.1** An unsubdivided or undeveloped tract of land adjoining a developed or a partially developed residential, industrial, institutional, governmental, or commercial area.

~~211.2~~**221.2** A subdivided residential, industrial, institutional, governmental, or commercial lot that contains no approved or permitted buildings or structures of a temporary or permanent nature.

~~211.3~~**221.3** A partially developed residential, industrial, institutional, governmental, or commercial lot.

~~211.4 A tract of land, in the $PM_{10}$ nonattainment area, adjoining agricultural property.~~

~~212~~**222** **OWNER AND/OR OPERATOR -** Any person who owns, leases, operates, controls, or supervises a fugitive dust source subject to the requirements of this rule.

~~213~~**223** **PAVE** - To apply and maintain asphalt, concrete, or other similar material to a roadway surface (i.e., asphaltic concrete, concrete pavement, chip seal, or rubberized asphalt).

~~214~~**224** **$PM_{10}$ NONATTAINMENT AREA -** An area designated by the EPA as exceeding national ambient air quality standards based upon data collected thru air quality monitoring. The geographical boundary of Maricopa County's $PM_{10}$ nonattainment area is defined as the rectangle determined by and including the following townships and ranges: T6N, R3W; T6N, R7E; T2S, R3W; T2S, R7E; and T1N, R8E. Maricopa County's $PM_{10}$ nonattainment area includes the following cities: Surprise, Peoria, Glendale, Phoenix, Scottsdale, Tempe, Mesa, Gilbert, Chandler, Avondale, Buckeye, and Goodyear.

**225** **PROPERTY LINE** - The boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.

~~215~~**226** **PUBLIC ROADWAYS -** Any roadways that are open to public travel.

**227** **TRACKOUT/CARRYOUT** – 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.

**228** **TRACKOUT CONTROL DEVICE -** A gravel pad, grizzly, wheel wash system, or a paved area, located at the point of intersection of an unpaved area and a paved area accessible to the public that controls or prevents vehicular trackout.

**229** **UNPAVED ACCESS CONNECTIONS** - Any unpaved road connection with a paved pubic road.

~~216~~**230** **UNPAVED PARKING LOT -** Any area ~~larger than 5,000 square feet~~ that is not paved and that is used for parking, maneuvering, material handling, or storing motor vehicles and equipment. An unpaved parking lot includes, but is not limited to, automobile impound yards, wrecking yards, automobile dismantling yards, salvage yards, material handling yards, and storage yards. For the purpose of this definition, maneuvering shall not include military maneuvers or exercises conducted on federal facilities.

~~217~~**231** **UNPAVED ROADWAY (INCLUDING ALLEYS) -** A road that is not paved and that is owned by Federal, State, county, municipal, or other governmental or quasi-governmental agencies. For the purpose of this rule, an unpaved roadway (including alleys) is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles. An unpaved roadway (including alleys) includes designated or opened trail systems and service roads regardless of surface composition and any other property dedicated or otherwise reserved for public or private street uses, as evidenced by a recorded document, or having thereon a public easement for such use.

~~218~~**232** **VACANT LOT** - The definition of vacant lot is included in ~~Section 211~~ Section 221-Definition Of Open Areas And Vacant Lots of this rule.

**SECTION 300 - STANDARDS**

**301 GENERAL REQUIREMENTS FOR NON-TRADITIONAL SOURCES OF FUGITIVE DUST:**

**301.1** An owner and/or operator of a non-traditional source of fugitive dust shall be subject to the standards and/or requirements described in this rule. Failure to comply with any such standards and/or requirements is deemed a violation of this rule.

**301.2** When an owner and/or operator of a non-traditional source of fugitive dust fails to stabilize disturbed surfaces of vacant lots as required in Section 302.4 and Section 302.5 of this rule, the Control Officer shall commence enforcement of those rule provisions regarding the stabilization of disturbed surfaces of vacant lots that include the following:

**a.** Reasonable written notice to the owner or the owner's authorized agent or the owner's statutory agent that the unpaved disturbed surface of a vacant lot is required to be stabilized. The notice shall be given not less than 30 days before the day set for compliance and shall include a legal description of the property and the estimated cost to the county for the stabilization if the owner does not comply. The notice shall be either personally served or mailed by certified mail to the owner's statutory agent, to the owner at the owner's last known address or to the address to which the tax bill for the property was last mailed.

**b.** Authority to enter upon any said land/property where such non-traditional source of fugitive dust exists/where such disturbed surface area exists and to take remedial and/or corrective action as may be deemed appropriate to cope with and relieve, reduce, remedy, and/or stabilize such non-traditional source of fugitive dust/such disturbed surface area. Any cost incurred in connection with any such remedial or corrective action by the Maricopa County Air Quality Department or any person acting for the Maricopa County Air Quality Department shall be reimbursed by the owner and/or operator of such non-traditional source of fugitive dust.

**302 CONTROL MEASURES FOR NON-TRADITIONAL SOURCES OF FUGITIVE DUST:**

**302.1** When engaged in the activities described in Section 302.4 through Section 302.10 of this rule, the owner and/or operator of a non-traditional source of fugitive dust shall

implement control measures as described in Section 302.4 through Section 302.10 of this rule, as applicable.

**302.2** Control measures shall be implemented to achieve the visible emissions requirements, as required for each activity and the compliance determination in Section 501 of this rule.

**302.3** Failure to implement control measures as required by this rule, as applicable, and/or failure to maintain stabilization of a non-traditional source of fugitive dust with adequate surface crusting to prevent wind erosion as measured by the requirements in this rule shall be deemed a violation of this rule.

**302.4** **Vehicle Use In Open Areas And Vacant Lots:** The owner and/or operator of a non-traditional source of fugitive dust that involves vehicle use in open areas and vacant lots shall be subject to the visible emissions requirements described in Section 302.4(a) of this rule and, unless otherwise specified and/or required, shall comply with the control measures described in Section 302.4(b) of this rule and the additional requirements described in Section 302.4(c) of this rule.

**a.** **Visible Emissions Requirements:** The owner and/or operator of a non-traditional source of fugitive dust that involves vehicle use in open areas and vacant lots shall not cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated.

**b.** **Control Measures:**

**(1)** Prevent motor vehicle and/or off-road vehicle trespassing, parking, and/or access by installing barriers, curbs, fences, gates, posts, shrubs, trees, or other effective control measures;

**(2)** Prevent motor vehicle and/or off-road vehicle trespassing, parking, and/or access by posting that consists of one of the following:

**(a)** A sign written in compliance with ordinance(s) of local, County, State, or Federal sign standards.

**(b)** An order of a government land management agency.

**(c)** Most current maps approved by a government land management agency.

**(d)** Virtual posting a government land management agency.

**(3)** Uniformly apply and maintain surface gravel or chemical/organic stabilizers to all areas disturbed by motor vehicles and/or off-road vehicles; or

**(4)** Apply and maintain an alternative control measure approved in writing by the Control Officer and the Administrator.

**c.** **Additional Requirements:**

**(1)** If open areas and vacant lots are 0.10 acre (4,356 square feet) or larger and have a cumulative of 500 square feet or more that are disturbed by being driven over and/or used by motor vehicles, by off-road vehicles, or for material dumping, then the owner and/or operator shall implement one or more of the control measures described in Section 302.4(b) of this rule within 60 calendar days following the initial discovery by the Control Officer of disturbance or vehicle use on open areas and vacant lots.

**(2)** Within 30 calendar days following the initial discovery by the Control Officer of disturbance or vehicle use on open areas and vacant lots, the owner and/or operator shall provide in writing to the Control Officer a description and date of the control measure(s) to be implemented to prevent such disturbance or vehicle use on open areas and vacant lots.

**(3)** The owner and/or operator shall implement all control measures necessary to limit the disturbance or vehicle use on open areas and vacant lots in accordance with the requirements of this rule. Control measure(s) shall be considered effectively implemented when the open areas and vacant lots achieve the compliance determinations described in Section 302.4(a) of this rule.

**(4)** Once a control measure in Section 302.4(b) of this rule has been effectively implemented, then such open area or vacant lot is subject to the requirements of Section 302.5-Open Areas And Vacant Lots of this rule.

**(5)** Use of or parking on open areas and vacant lots by the owner and/or operator of such open areas and vacant lots shall not be considered vehicle use in open areas and vacant lots and shall not be subject to the requirements of Section 302.4(b) and Section 302.4(c)(1) through Section 302.4(c)(4) of this rule. Such open areas and vacant lots shall still achieve the compliance determinations described in Section 501 of this rule.

**(6)** Establishing initial landscapes without the use of mechanized equipment or conducting landscape maintenance without the use of mechanized equipment shall not be considered vehicle use in open areas and vacant lots and shall not be subject to the requirements of Section 302.4(b) and Section 302.4(c)(1) through Section 302.4(c)(4) of this rule. Such open areas and vacant lots shall still achieve the compliance determinations described in Section 501 of this rule.

**302.5** **Open Areas And Vacant Lots:** The owner and/or operator of a non-traditional source of fugitive dust that involves open areas and vacant lots shall be subject to the visible emissions requirements described in Section 302.5(a) of this rule and, unless otherwise specified and/or required, shall comply with the control measures described in Section 302.5(b) of this rule and the additional requirements described in Section 302.5(c) of this rule.

**a.** **Visible Emissions Requirements:** The owner and/or operator of a non-traditional source of fugitive dust that involves open areas and vacant lots shall not cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated.

**b.** **Control Measures:**

**(1)** Establish vegetative ground cover on all disturbed surface areas. Such control measure(s) must be maintained and reapplied, if necessary. Stabilization shall be achieved, per this control measure, within eight months after the control measure has been implemented.

**(2)** Apply a dust suppressant to all disturbed surface areas.

**(3)** Restore all disturbed surface areas within 60 calendar days following the initial discovery by the Control Officer of the disturbance, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions. Such control measure(s) must be maintained and

reapplied, if necessary. Stabilization shall be achieved, per such control measure, within eight months after such control measure has been implemented.

**(4)** Uniformly apply and maintain surface gravel.

**(5)** Apply and maintain an alternative control measure approved in writing by the Control Officer and the Administrator.

**c. Additional Requirements:**

**(1)** If open areas and vacant lots are 0.10 acre (4,356 square feet) or larger and have a cumulative of 500 square feet or more that are disturbed and if such disturbed area remains unoccupied, unused, vacant, or undeveloped for more than 15 days, then the owner and/or operator shall implement one or more of the control measures described in Section 302.5(b) of this rule within 60 calendar days following the initial discovery by the Control Officer of the disturbance on the open areas and vacant lots.

**(2)** Within 30 calendar days following the initial discovery by the Control Officer of the disturbance on the open areas and vacant lots, the owner and/or operator shall provide in writing to the Control Officer a description and date of the control measure(s) to be implemented.

**(3)** Control measure(s) shall be considered effectively implemented when the disturbance on the open areas and vacant lots achieves the compliance determinations described in Section 302.5(a) of this rule.

**302.6** **Unpaved Parking Lots:** The owner and/or operator of a non-traditional source of fugitive dust that involves unpaved parking lots shall be subject to the requirements described in Section 302.6(a) of this rule and, unless otherwise specified and/or required, shall comply with one of the control measures described in Section 302.6(b) of this rule and the additional requirements described in Section 302.6(c) of this rule.

**a. Visible Emissions Requirements And Stabilization Requirements:**

**(1)** The owner and/or operator of a non-traditional source of fugitive dust that involves unpaved parking lots shall not cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated.

**(2)** The owner and/or operator of a non-traditional source of fugitive dust that involves unpaved parking lots shall not cause or allow visible fugitive dust emissions to exceed 20% opacity and either Section 302.6(a)(2)(a) or Section 302.6(a)(2)(b) of this rule:

**(a)** Shall not allow silt loading equal to or greater than 0.33 oz/ft$^2$; or

**(b)** Shall not allow the silt content to exceed 8%.

**b. Control Measures:**

**(1)** Pave;

**(2)** Apply dust suppressants other than water and 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 motor vehicles that traverse the site;

**(3)** Uniformly apply and maintain surface gravel; or

**(4)** Apply water and 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 motor vehicles that traverse the site.

**c. Additional Requirements:**

**(1)** The owner and/or operator of an unpaved parking lot shall implement one of the control measures described in Section 302.6(b) of this rule on any surface area(s) of the lot on which vehicles enter, park, and exit.

**(a)** If an unpaved parking lot is utilized for a period of 35 days or less during the calendar year, the owner and/or operator shall implement one or more of the control measures described in Section 302.6(b) of this rule during the period that the unpaved parking lot is utilized for vehicle parking and shall restrict vehicle access to only those areas upon which a control measure has been implemented.

**(b)** If an unpaved parking lot is utilized for more than 35 days during the calendar year, the owner and/or operator shall implement one or more of the control measures described in Section 302.6(b)(1) through Section 302.6(b)(3) of this rule during the period that the unpaved parking lot is utilized for vehicle parking and shall restrict vehicle access to only those areas upon which a control measure has been implemented.

**(2)** Control measure(s) shall be considered effectively implemented when the unpaved parking lot achieves the compliance determinations described in Section 302.6(a) of this rule.

**(3)** If trackout occurs, the owner and/or operator shall repair and/or replace the control measure(s) and shall clean-up immediately such trackout from paved areas accessible to the public including curbs, gutters, and sidewalks when trackout extends a cumulative distance of 25 linear feet or more and at the end of the day for all other trackout.

**(4)** Parking, maneuvering, ingress, and egress areas at developments other than residential buildings with four or fewer units shall be maintained with one or more of the following dustproof paving methods:

**(a)** Asphaltic concrete.

**(b)** Cement concrete.

**(c)** Penetration treatment of bituminous material and seal coat of bituminous binder and a mineral aggregate.

**(d)** A stabilization method approved in writing by the Control Officer and the Administrator.

**(5)** Parking, maneuvering, ingress, and egress areas 3,000 square feet or more in size at residential buildings with four or fewer units shall be maintained with a

paving or stabilization method authorized by the county by code, ordinance, or permit.

**302.7** **Unpaved Roadways (Including Alleys):** The owner and/or operator of unpaved roadways (including alleys) that are used by 150 vehicle trips or more per day in the $PM_{10}$ nonattainment area shall be subject to the stabilization requirements described in Section 302.7(a) of this rule and, unless otherwise specified and/or required, shall comply with one of the control measures described in Section 302.7(b) of this rule and the additional requirements described in Section 302.7(c) of this rule.

**a.** **Stabilization Requirements**: The owner and/or operator of unpaved roadways (including alleys) shall not cause or allow visible fugitive dust emissions to exceed 20% opacity and either Section 302.7(a)(1) or Section 302.7(a)(2) of this rule:

**(1)** Shall not allow silt loading equal to or greater than 0.33 $oz/ft^2$; or

**(2)** Shall not allow the silt content to exceed 6%.

**b.** **Control Measures:**

**(1)** Pave;

**(2)** Apply dust suppressants other than water; or

**(3)** Uniformly apply and maintain surface gravel.

**c.** **Additional Requirements:**

**(1)** If a person allows 150 vehicle trips or more per day on an unpaved roadway (including an alley) in the PM10 nonattainment area, then such person shall first implement one of the control measures described in Section 302.7(b) of this rule.

**(2)** A person, who allows 150 vehicle trips or more per day on an unpaved roadway (including an alley) in the $PM_{10}$ nonattainment area, shall be responsible for conducting vehicle counts/traffic counts to determine if 150 vehicle trips or more per day occur on an unpaved roadway (including an alley). A traffic count shall measure vehicular traffic over a 48-hour period, which may consist of two non-consecutive 24-hour periods. Vehicular traffic shall be measured continuously during each 24-hour period. The average vehicle counts/traffic counts on the highest trafficked days shall be recorded and provided to the Control Officer in writing within 60 days of verbal or written request by the Control Officer.

**(3)** Control measure(s) shall be considered effectively implemented under the following conditions:

**(a)** When the unpaved roadway (including an alley) achieves the compliance determinations described in Section 302.7(a) of this rule.

**(b)** When one of the control measures described in Section 302.7(b) of this rule is implemented on 5 miles of unpaved roadways (including alleys) having vehicle traffic of 150 vehicle trips or more per day within one calendar year beginning in calendar year of 2008. If the control measure described in Section 302.7(b)(2) of this rule is implemented, the unpaved roadways

(including alleys) must be maintained so as to comply with Appendix C of these rules.

**302.8** **Livestock Activities:** The owner and/or operator of a non-traditional source of fugitive dust that involves livestock activities shall be subject to the visible emissions requirements described in Section 302.8(a) of this rule and, unless otherwise specified and/or required, shall comply with the control measures described in Section 302.8(b) of this rule and the additional requirements described in Section 302.8(c) of this rule.

**a.** **Visible Emissions Requirements:**

**(1)** For unpaved access connections and unpaved feed lane access areas, the owner and/or operator shall not cause or allow visible fugitive dust emissions to exceed 20% opacity.

**(2)** For corrals, pens, and arenas, the owner and/or operator shall not cause or allow visible fugitive dust emissions to exceed 20% opacity for a period aggregating more than three minutes in any 60-minute period.

**(3)** The owner and/or operator shall not cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated.

**b.** **Control Measures:**

**(1)** For unpaved access connections:

**(a)** Apply and maintain dust suppressants other than water; or

**(b)** Apply and maintain pavement, gravel (maintained to a depth of four inches), or asphaltic roadbase.

**(2)** For unpaved feed lane access areas:

**(a)** Apply and maintain dust suppressants other than water; or

**(b)** Apply and maintain pavement, gravel (maintained to a depth of four inches), or asphaltic roadbase.

**(3)** For bulk material hauling, including animal waste, off-site and crossing and/or accessing a paved area accessible to the public:

**(a)** Load all vehicles used to haul bulk material, including animal waste, such that the freeboard is not less than three inches;

**(b)** Prevent spillage or loss of bulk material, including animal waste, from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s);

**(c)** Cover cargo compartment with a tarp or other suitable closure; and

**(d)** 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 motor vehicles that traverse the site.

**(4)** For corrals, pens, and arenas:

**(a)** Apply water;

**(b)** Install shrubs and/or trees within 50 feet to 100 feet of corrals, pens, and arenas;

**(c)** Scrape and/or remove manure;

**(d)** Apply a fibrous layer (i.e., wood chips) in working areas; or

**(e)** Apply and maintain an alternative control measure approved in writing by the Control Officer and the Administrator.

**c. Additional Requirements:**

**(1)** The owner and/or operator of livestock activities shall implement one of the control measures described in Section 302.8(b)(1), Section 302.8(b)(2), Section 302.8(b)(3), and Section 302.8(b)(4) of this rule, as applicable.

**(2)** Control measure(s) shall be considered effectively implemented when the livestock activities achieve the compliance determinations described in Section 302.8(a) of this rule.

**(3)** If trackout occurs, the owner and/or operator shall repair and/or replace the control measure(s) and shall clean-up immediately such trackout from paved areas accessible to the public including curbs, gutters, and sidewalks when trackout extends a cumulative distance of 25 linear feet or more and at the end of the day for all other trackout.

**302.9 Erosion-Caused Deposition Of Bulk Materials Onto Paved Surfaces:** The owner and/or operator of a non-traditional source of fugitive dust that involves erosion-caused deposition of bulk materials onto paved surfaces shall comply with the control measures described in Section 302.9(a) of this rule and the additional requirements described in Section 302.9(b) of this rule.

**a. Control Measures:**

**(1)** Remove any and all such deposits by utilizing the appropriate control measures within 24 hours of the deposits' identification or prior to the resumption of traffic on pavement, where the pavement area has been closed to traffic; and

**(2)** Dispose of deposits in such a manner so as not to cause another source of fugitive dust.

**b. Additional Requirements:**

**(1)** In the event that erosion-caused deposition of bulk materials or other materials occurs on any adjacent paved roadway, paved parking lot, curb, gutter, or sidewalk, the owner and/or operator of the property from which the deposition eroded shall implement both of the control measures described in Section 302.9(a) of this rule.

**(2)** Failure to comply with both of the control measures described in Section 302.9(a) of this rule shall constitute a violation of this rule.

**302.10 Easements, Rights-Of-Way, And Access Roads For Utilities (Transmission Of Electricity, Natural Gas, Oil, Water, And Gas**): The owner and/or operator of a non-

traditional source of fugitive dust that involves easements, rights-of-way, and access roads for utilities (transmission of electricity, natural gas, oil, water, and gas) that are used by 150 vehicle trips or more per day in the $PM_{10}$ nonattainment area shall be subject to the stabilization requirements described in Section 302.10(a) of this rule and unless otherwise specified and/or required, comply with one of the control measures described in Section 302.10(b) of this rule and the additional requirements described in Section 302.10(c) of this rule.

**a.** **Stabilization Requirements:** The owner and/or operator of a non-traditional source of fugitive dust that involves easements, rights-of-way, and access roads for utilities (transmission of electricity, natural gas, oil, water, and gas) shall not cause or allow visible fugitive dust emissions to exceed 20% opacity and either Section 302.10(a)(1) or Section 302.10(a)(2) of this rule:

**(1)** Shall not allow silt loading equal to or greater than 0.33 oz/ft2; or

**(2)** Shall not allow the silt content to exceed 6%.

**b.** **Control Measures:**

**(1)** Pave;

**(2)** Apply dust suppressants other than water;

**(3)** Uniformly apply and maintain surface gravel; or

**(4)** Install locked gates at each entry point.

**c.** **Additional Requirements:**

**(1)** If an owner and/or operator allows 150 vehicle trips or more per day to use an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas) in the $PM_{10}$ nonattainment area, then such owner and/or operator shall first implement one of the control measures described in Section 302.10(b) of this rule.

**(2)** A person, who allows 150 vehicle trips or more per day to use an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas) in the $PM_{10}$ nonattainment area, shall be responsible for conducting vehicle counts/traffic counts to determine if 150 vehicle trips or more per day occur on an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas). Such person shall provide to the Control Officer written results of such vehicle counts/traffic counts within 60 days of verbal or written request by the Control Officer.

**(3)** Control measure(s) shall be considered effectively implemented when the easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas) achieves the compliance determinations described in Section 302.10(a) of this rule.

~~301 VEHICLE USE IN OPEN AREAS AND VACANT LOTS: If open areas and vacant lots are 0.10 acre or larger and have a cumulative of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, then the owner and/or operator of such open areas and vacant lots shall implement one of the control measures described in Section 301.1 of this rule within 60 calendar days following the initial discovery of vehicle use on open areas and vacant lots. Within 30 calendar days following the initial discovery by the Control Officer of vehicle use~~

~~on open areas and vacant lots, the owner and/or operator of such open areas and vacant lots shall provide in writing to the Control Officer a description and date of the control measure(s) to be implemented to prevent such vehicle use on open areas and vacant lots. For the purpose of this rule, such control measure(s) shall be considered effectively implemented when the open areas and vacant lots meet one of the stabilization limitations described in Section 301.2 of this rule. Once a control measure in Section 301.1 of this rule has been effectively implemented, then such open area or vacant lot is subject to the requirements of Section 302 (Open Areas And Vacant Lots) of this rule. Use of or parking on open areas and vacant lots by the owner and/or operator of such open areas and vacant lots and/or landscape maintenance of such open areas and vacant lots shall not be considered vehicle use in open areas and vacant lots, although such open areas and vacant lots shall still meet the stabilization limitations described in Section 301.2 of this rule. For the purpose of this rule, landscape maintenance does not include grading, trenching, nor any other mechanized surface disturbing activities performed to establish initial landscapes or to redesign existing landscapes.~~

~~301.1 Control Measures:~~

~~a. Prevent motor vehicle and/or off-road vehicle trespassing, parking, and/or access, by installing barriers, curbs, fences, gates, posts, signs (written in English and Spanish and in compliance with ordinance(s) of local jurisdictions), shrubs, trees, or other effective control measures.~~

~~b. Uniformly apply and maintain surface gravel or chemical/organic stabilizers to all areas disturbed by motor vehicles and/or off-road vehicles in compliance with one of the stabilization limitations described in Section 301.2 of this rule.~~

~~c. Apply and maintain an alternative control measure approved in writing by the Control Officer and the Administrator of the EPA.~~

~~301.2 Stabilization Limitations:~~

~~a. A visible crust shall be implemented, as determined by Appendix C, Section 2.3 (Test Methods For Stabilization-Visible Crust Determination) (The Drop Ball/Steel Ball Test) of these rules; or~~

~~b. A threshold friction velocity (TFV) corrected for non-erodible elements of 100 cm/second or higher shall be implemented, as determined by Appendix C, Section 2.4 (Test Methods For Stabilization-Determination Of Threshold Friction Velocity (TFV)) (Sieving Field Procedure) of these rules; or~~

~~c. 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% shall be implemented, as determined by Appendix C, Section 2.5 (Test Methods For Stabilization-Determination Of Flat Vegetative Cover) of these rules; or~~

~~d. Standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30% shall be implemented, as determined by Appendix C, Section 2.6 (Test Methods For Stabilization-Determination Of Standing Vegetative Cover) of these rules; or~~

~~e. 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 shall be implemented, as determined by Appendix C,~~

~~Section 2.6 (Test Methods For Stabilization-Determination Of Standing Vegetative Cover) of these rules; or~~

~~f. A percent cover that is equal to or greater than 10% for non-erodible elements shall be implemented, as determined by Appendix C, Section 2.7 (Test Methods For Stabilization-Rock Test Method) of these rules; or~~

~~g. An alternative test method approved in writing by the Control Officer and the Administrator of the EPA shall be implemented.~~

~~302 OPEN AREAS AND VACANT LOTS: If open areas and vacant lots have 0.5 acre or more of disturbed surface area and remain unoccupied, unused, vacant, or undeveloped for more than 15 days, then the owner and/or operator of such open areas and vacant lots shall implement one of the control measures described in Section 302.1 of this rule within 60 calendar days following the initial discovery of the disturbance on the open areas and vacant lots. Within 30 calendar days following the initial discovery by the Control Officer of the disturbance on the open areas and vacant lots, the owner and/or operator of such open areas and vacant lots shall provide in writing to the Control Officer a description and date of the control measure(s) to be implemented. For the purpose of this rule, such control measure(s) shall be considered effectively implemented when the open areas and vacant lots meet one of the stabilization limitations described in Section 302.2 of this rule. Should an open area or vacant lot on which no activity is occurring contain more than one type of disturbance, soil, vegetation, or other characteristics that are visibly distinguishable, then each representative surface shall be tested separately for stability, in an area that represents a random portion of the overall disturbed conditions of the site, according to the appropriate test methods in Appendix C of these rules and included or eliminated from the total size assessment of disturbed surface area(s) depending on test method results.~~

~~302.1 Control Measures:~~

~~a. Establish vegetative ground cover on all disturbed surface areas within 60 calendar days following the initial discovery of the disturbance. Such control measure(s) must be maintained and reapplied, if necessary, until the disturbed surface areas are stabilized, in compliance with one of the stabilization limitations described in Section 302.2 of this rule. Stabilization shall be achieved, per this control measure, within eight months after the control measure has been implemented.~~

~~b. Apply a dust suppressant to all disturbed surface areas, in compliance with one of the stabilization limitations described in Section 302.2 of this rule.~~

~~c. Restore all disturbed surface areas within 60 calendar days following the initial discovery of the disturbance, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions. Such control measure(s) must be maintained and reapplied, if necessary, until the disturbed surface areas are stabilized, in compliance with one of the stabilization limitations described in Section 302.2 of this rule. Stabilization shall be achieved, per such control measure, within eight months after such control measure has been implemented.~~

~~d. Uniformly apply and maintain surface gravel, in compliance with one of the stabilization limitations described in Section 302.2 of this rule.~~

~~e. Apply and maintain an alternative control measure approved in writing by the Control Officer and the Administrator of the EPA.~~

~~302.2 Stabilization Limitations:~~

~~a. A visible crust shall be implemented, as determined by Appendix C, Section 2.3 (Test Methods For Stabilization-Visible Crust Determination) (The Drop Ball/Steel Ball Test) of these rules; or~~

~~b. A threshold friction velocity (TFV), corrected for non-erodible elements of 100 cm/second or higher, shall be implemented, as determined by Appendix C, Section 2.4 (Test Methods For Stabilization-Determination Of Threshold Friction Velocity (TFV)) (Sieving Field Procedure) of these rules; or~~

~~c. 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% shall be implemented, as determined by Appendix C, Section 2.5 (Test Methods For Stabilization-Determination Of Flat Vegetative Cover) of these rules; or~~

~~d. Standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30% shall be implemented, as determined by Appendix C, Section 2.6 (Test Methods For Stabilization-Determination Of Standing Vegetative Cover) of these rules; or~~

~~e. 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 shall be implemented, as determined by Appendix C, Section 2.6 (Test Methods For Stabilization-Determination Of Standing Vegetative Cover) of these rules; or~~

~~f. A percent cover that is equal to or greater than 10% for non-erodible elements shall be implemented, as determined by Appendix C, Section 2.7 (Test Methods For Stabilization-Rock Test Method) of these rules; or~~

~~g. An alternative test method approved in writing by the Control Officer and the Administrator of the EPA shall be implemented.~~

~~303 UNPAVED PARKING LOTS: The owner and/or operator of an unpaved parking lot shall implement one of the control measures described in Section 303.1 of this rule on any surface area(s) of the lot on which vehicles enter, park, and exit. For unpaved parking lots that are utilized intermittently, for a period of 35 days or less during the calendar year, the owner and/or operator shall implement one of the control measures described in Section 303.1 of this rule, during the period that the unpaved parking lots are utilized for vehicle parking. For the purpose of this rule, such control measure(s) shall be considered effectively implemented when the unpaved parking lot meets the stabilization and opacity limitations described in Section 303.2 of this rule.~~

~~303.1 Control Measures:~~

~~a. Pave.~~

~~b. Apply dust suppressants, in compliance with the stabilization and opacity limitations described in Section 303.2 of this rule.~~

~~c. Uniformly apply and maintain surface gravel, in compliance with the stabilization and opacity limitations described in Section 303.2 of this rule.~~

~~303.2 Stabilization And Opacity Limitations: For the purpose of this rule, control measures shall be considered effectively implemented when stabilization and opacity observations for fugitive dust emissions from unpaved parking lots do not exceed 20% opacity and~~

~~meet one of the following, as determined by Appendix C, Section 2.1 (Test Methods For Stabilization For Unpaved Roads And Unpaved Parking Lots) of these rules:~~

~~a. Silt loading is equal to or greater than 0.33 oz/ft2; or~~

~~b. Silt content does not exceed 8%.~~

~~304 UNPAVED ROADWAYS (INCLUDING ALLEYS): If a person allows 150 vehicles or more per day to use an unpaved roadway (including alleys) in the $PM_{10}$ nonattainment area, then such person shall first implement one of the control measures described in Section 304.1 of this rule. For the purpose of this rule, such control measure(s) shall be considered effectively implemented when the unpaved roadway (including alleys) meets the stabilization and opacity limitation described in Section 304.2 of this rule.~~

~~304.1 Control Measures:~~

~~a. Pave.~~

~~b. Apply dust suppressants, in compliance with the stabilization and opacity limitations described in Section 304.2 of this rule.~~

~~c. Uniformly apply and maintain surface gravel, in compliance with the stabilization and opacity limitations described in Section 304.2 of this rule.~~

~~304.2 Stabilization And Opacity Limitations: For the purpose of this rule, control measures shall be considered effectively implemented when stabilization and opacity observations for fugitive dust emissions from unpaved roadways (including alleys) do not exceed 20% opacity and meet one of the following, as determined by Appendix C, Section 2.1 (Test Methods For Stabilization For Unpaved Roads And Unpaved Parking Lots) of these rules:~~

~~a. Silt loading is equal to or greater than 0.33 oz/ft2; or~~

~~b. Silt content does not exceed 6%.~~

~~305 FEEDLOTS AND/OR LIVESTOCK AREAS: The owner and/or operator of any feedlot and/or livestock area shall implement one of the control measures described in Section 305.1 of this rule. For the purpose of this rule, such control measure(s) shall be considered effectively implemented when the feedlot and/or livestock area meets the opacity limitation described in Section 305.2 of this rule.~~

~~305.1 Control Measures:~~

~~a. Apply dust suppressants, in compliance with the opacity limitation described in Section 305.2 of this rule.~~

~~b. Uniformly apply and maintain surface gravel, in compliance with the opacity limitation described in Section 305.2 of this rule.~~

~~c. Install shrubs and/or trees within 50 feet to 100 feet of animal pens, in compliance with the opacity limitation described in Section 305.2 of this rule.~~

~~305.2 Opacity Limitation: For the purpose of this rule, control measures shall be considered effectively implemented when opacity observations for fugitive dust emissions from feedlots and/or livestock areas do not exceed 20% opacity, as determined by Appendix C,~~

~~Section 3 (Visual Determination Of Opacity Of Emissions From Sources For Time-Average Regulations) of these rules.~~

~~306 EROSION-CAUSED DEPOSITION OF BULK MATERIALS ONTO PAVED SURFACES: In the event that erosion-caused deposition of bulk materials or other materials occurs on any adjacent paved roadway or paved parking lot, the owner and/or operator of the property from which the deposition eroded shall implement both of the control measures described in Section 306.1 of this rule. For the purpose of this rule, such control measures shall be considered effectively implemented when the deposition meets the opacity limitation described in Section 306.2 of this rule. Exceedances of the opacity limitation, due to erosion-caused deposition of bulk materials onto paved surfaces, shall constitute a violation of the opacity limitation.~~

~~306.1 Control Measures:~~

~~a. Remove any and all such deposits by utilizing the appropriate control measures within 24 hours of the deposits' identification or prior to the resumption of traffic on pavement, where the pavement area has been closed to traffic; and~~

~~b. Dispose of deposits in such a manner so as not to cause another source of fugitive dust.~~

~~306.2 Opacity Limitation: For the purpose of this rule, control measures shall be considered effectively implemented when opacity observations for fugitive dust emissions from erosion-caused deposition of bulk materials onto paved surfaces do not exceed 20% opacity, as described in Appendix C, Section 2.1 (Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots) of these rules.~~

~~307 EASEMENTS, RIGHTS-OF-WAY, AND ACCESS ROADS FOR UTILITIES (ELECTRICITY, NATURAL GAS, OIL, WATER, AND GAS TRANSMISSION): If an owner and/or operator allows 150 vehicles or more per day to use an easement, right-of-way, and access road for utilities (electricity, natural gas, oil, water, and gas transmission) in the $PM_{10}$ nonattainment area, then such owner and/or operator shall first implement one of the control measures described in Section 307.1 of this rule. For the purpose of this rule, such control measure(s) shall be considered effectively implemented, when the easement, right-of-way, and access road for utilities (electricity, natural gas, oil, water, and gas transmission) meet the stabilization and opacity limitation described in Section 307.2 of this rule.~~

~~307.1 Control Measures:~~

~~a. Pave.~~

~~b. Apply dust suppressants, in compliance with the stabilization and opacity limitations described in Section 307.2 of this rule.~~

~~c. Uniformly apply and maintain surface gravel, in compliance with the stabilization and opacity limitations described in Section 307.2 of this rule.~~

~~307.2 Stabilization And Opacity Limitations: For the purpose of this rule, control measures shall be considered effectively implemented when stabilization and opacity observations for fugitive dust emissions from easements, rights-of-way, and access roads for utilities (electricity, natural gas, oil, water, and gas transmission) do not exceed 20% opacity and meet one of the following, as determined by Appendix C, Section 2.1 (Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots) of these rules:~~

~~a. Silt loading is not equal to or greater than 0.33 oz/ft2; or~~

~~b. Silt content does not exceed 6%.~~

**SECTION 400 - ADMINISTRATIVE REQUIREMENTS (NOT APPLICABLE)**

**SECTION 500 - MONITORING AND RECORDS**

**501** ~~STABILIZATION OBSERVATIONS~~ **COMPLIANCE DETERMINATION**: To determine compliance with this rule, the following test methods shall be followed:

**501.1 Opacity Observations:**

**a.** Opacity observations to measure visible emissions shall be conducted in accordance with the techniques specified in EPA Reference Method 203B (Visual Determination Of Opacity Of Emissions From Stationary Sources For Time-Exception Regulations). Emissions shall not exceed the applicable opacity standards of this rule for a period aggregating more than three minutes in any 60-minute period.

**b.** Opacity observations to determine compliance with Sections 302.6, 302.7, 302.8(a)(1), 302.8(a)(2), and 302.10 of this rule shall be conducted in accordance with the techniques specified in Appendix C (Fugitive Dust Test Methods) of these rules.

~~501.1~~**501.2** Stabilization observations for unpaved parking lots and/or unpaved roadways (including alleys) shall be conducted in accordance with Appendix C, Section 2.1-Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots of these rules.

~~501.2~~**501.3** Stabilization observations for an open area and vacant lot shall be conducted in accordance with the following:

**a.** Appendix C, Section 2.3-Test Methods For Stabilization-~~Visible~~ Soil Crust Determination- The Drop Ball~~/Steel Ball~~ Test of these rules; or

**b.** Appendix C, Section 2.4-Test Methods For Stabilization-Determination Of Threshold Friction Velocity (TFV)-Sieving Field Procedure of these rules, where the threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements is 100 cm/second or higher; or

**c.** Appendix C, Section 2.5-Test Methods For Stabilization-Determination Of Flat Vegetative Cover of these rules, where flat vegetation 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) is equal to at least 50%; or

**d.** Appendix C, Section 2.6-Test Methods For Stabilization-Determination Of Standing Vegetative Cover of these rules, where standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) is equal to or greater than 30%; or

**e.** Appendix C, Section 2.6-Test Methods For Stabilization-Determination Of Standing Vegetative Cover of these rules, where the standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) is equal to or greater than 10% and where the threshold friction velocity, corrected for non-erodible elements, is equal to or greater than 43 cm/second; or

**f.** Appendix C, Section 2.7-Test Methods For Stabilization-Rock Test Method of these rules where a percent cover is equal to or greater than 10% for non-erodible elements.

**g.** An alternative test method approved in writing by the Control Officer and the Administrator ~~of the EPA~~.

**502** **RECORDKEEPING:** Any person subject to the requirements of this rule shall compile and retain records that provide evidence of control measure application (i.e., receipts and/or purchase records). Such person shall describe, in the records, the type of treatment or control measure, extent of coverage, and date applied. Upon verbal or written request by the Control Officer, such person shall provide the records and supporting documentation ~~within~~ as soon as possible but no later than 48 hours, excluding weekends. If the Control Officer is at the site where requested records are kept, such person shall provide the records without delay.

**503** **RECORDS RETENTION**: Copies of the records required by Section 502-Recordkeeping of this rule shall be retained for at least ~~one year~~ two years.

**Adopted 06/16/99**
**Revised 02/16/00**
**Revised 04/07/04**

## APPENDIX C

## FUGITIVE DUST TEST METHODS

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**MARICOPA COUNTY**
**AIR POLLUTION CONTROL REGULATIONS**

**APPENDIX C**
**FUGITIVE DUST TEST METHODS**

**1. RESERVED**

**2. TEST METHODS FOR STABILIZATION**

**2.1 For Unpaved Roads And Unpaved Parking Lots.**

**2.1.1 Opacity Test Method.** The purpose of this test method is to estimate the percent opacity of fugitive dust plumes caused by vehicle movement on unpaved roads and unpaved parking lots. This method can only be conducted by an individual who has received certification as a qualified observer.

Qualification and testing requirements can be found in Section 3.4 of this appendix.

**a.** **Step 1:** Stand at least 16.5 feet from the fugitive dust source in order to provide a clear view of the emissions with the sun oriented in the 140° sector to the back. Following the above requirements, make opacity observations so that the line of vision is approximately perpendicular to the dust plume and wind direction. If multiple plumes are involved, do not include more than one plume in the line of sight at one time.

**b.** **Step 2**: Record the fugitive dust source location, source type, method of control used, if any, observer's name, certification data and affiliation, and a sketch of the observer's position relative to the fugitive dust source. Also, record the time, estimated distance to the fugitive dust source location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), observer's position to the fugitive dust source, and color of the plume and type of background on the visible emission observation from both when opacity readings are initiated and completed.

**c.** **Step 3**: Make opacity observations, to the extent possible, using a contrasting background that is perpendicular to the line of vision. Make opacity observations approximately 1 meter above the surface from which the plume is generated. Note that the observation is to be made at only one visual point upon generation of a plume, as opposed to visually tracking the entire length of a dust plume as it is created along a surface. Make two observations per vehicle, beginning with the first reading at zero seconds and the second reading at five seconds. The zero–second observation should begin immediately after a plume has been created above the surface involved. Do not look continuously at the plume but, instead, observe the plume briefly at zero seconds and then again at five seconds.

**d.** **Step 4:** Record the opacity observations to the nearest 5% on an observational record sheet. Each momentary observation recorded represents the average opacity of emissions for a 5–second period. While it is not required by the test method, EPA recommends that the observer estimate the size of vehicles which generate dust plumes for which readings are taken (e.g. mid–size passenger car or heavy–duty truck) and the approximate speeds the vehicles are traveling when readings are taken.

**e.** **Step 5:** Repeat Step 3 (Subsection 2.1.1(c) of this appendix) and Step 4 (Subsection 2.1.1(d) of this appendix) until you have recorded a total of 12 consecutive opacity readings. This will occur once six vehicles have driven on the source in your line of observation for which you are able to take proper readings. The 12 consecutive readings must be taken within the same period of observation but must not exceed 1 hour. Observations immediately preceding and following interrupted observations can be considered consecutive.

**f.** **Step 6**: Average the 12 opacity readings together. If the average opacity reading equals 20% or lower, the source is in compliance~~. with the opacity standard described in Rule 310 of these rules.~~

**2.1.2** **Silt Content Test Method.** The purpose of this test method is to estimate the silt content of the trafficked parts of unpaved roads and unpaved parking lots. The higher the silt content, the more fine dust particles that are released when cars and trucks drive on unpaved roads and unpaved parking lots.

**a. Equipment:**

**(1)** A set of sieves with the following openings: 4 millimeters (mm), 2 mm, 1 mm, 0.5 mm and 0.25 mm (or a set of standard/commonly available sieves), a lid, and collector pan.

**(2)** A small whisk broom or paintbrush with stiff bristles and dustpan 1 ft. in width (The broom/brush should preferably have one, thin row of bristles no longer than 1.5 inches in length).

**(3)** A spatula without holes.

**(4)** A small scale with half-ounce increments (e.g. postal/package scale).

**(5)** A shallow, lightweight container (e.g. plastic storage container).

**(6)** A sturdy cardboard box or other rigid object with a level surface.

**(7)** A basic calculator.

**(8)** Cloth gloves (optional for handling metal sieves on hot, sunny days).

**(9)** Sealable plastic bags (if sending samples to a laboratory).

**(10)** A pencil/pen and paper.

**b.** **Step 1:** Look for a routinely traveled surface, as evidenced by tire tracks. [Only collect samples from surfaces that are not damp due to precipitation or dew. This statement is not meant to be a standard in itself for dampness where watering is being used as a control measure. It is only intended to ensure that surface testing is done in a representative manner.] Use caution when taking samples to ensure personal safety with respect to passing vehicles. Gently press the edge of a dustpan (1 foot in width) into the surface four times to mark an area that is 1 square foot. Collect a sample of loose surface material using a whiskbroom or brush and slowly sweep the material into the dustpan, minimizing escape of dust particles. Use a spatula to lift heavier elements such as gravel. Only collect dirt/gravel to an approximate depth of 3/8 inch or 1 cm in the 1 square foot area. If you reach a hard, underlying subsurface that is < 3/8 inch in depth, do not continue collecting the sample by digging into the hard surface. In other words, you are only collecting a surface sample of loose material down to 1 cm. In order to confirm that samples are collected to 1 cm in depth, a wooden dowel or other similar narrow object at least one foot in length can be laid horizontally across the survey area while a metric ruler is held perpendicular to the dowel.

- At this point, you can choose to place the sample collected into a plastic bag or container and take it to an independent laboratory for silt content analysis. A reference to the procedure the laboratory is required to follow is at the end of this section.

**c.** **Step 2**: Place a scale on a level surface. Place a lightweight container on the scale. Zero the scale with the weight of the empty container on it. Transfer the entire sample collected in the dustpan to the container, minimizing escape of dust particles. Weigh the sample and record its weight.

**d.** **Step 3:** Stack a set of sieves in order according to the size openings specified above, beginning with the largest size opening (4 mm) at the top. Place a collector pan underneath the bottom (0.25 mm) sieve.

**e.** **Step 4:** Carefully pour the sample into the sieve stack, minimizing escape of dust particles by slowly brushing material into the stack with a whiskbroom or brush. (On windy days, use the trunk or door of a car as a wind barricade.) Cover the stack with a lid. Lift up the sieve stack and shake it vigorously up, down and sideways for at least 1 minute.

**f.** **Step 5**: Remove the lid from the stack and disassemble each sieve separately, beginning with the top sieve. As you remove each sieve, examine it to make sure that all of the material has been sifted to the finest sieve through which it can pass (e.g., material in each sieve (besides the top sieve that captures a range of larger elements) should look the same size). If this is not the case, re–stack the sieves and collector pan, cover the stack with the lid, and shake it again for at least 1 minute. (You only need to reassemble the sieve(s) that contain material, which requires further sifting.)

**g.** **Step 6**: After disassembling the sieves and collector pan, slowly sweep the material from the collector pan into the empty container originally used to collect and weigh the entire sample. Take care to minimize escape of dust particles. You do not need to do anything with material captured in the sieves – only the collector pan. Weigh the container with the material from the collector pan and record its weight.

**h.** **Step 7**: If the source is an unpaved road, multiply the resulting weight by 0.38. If the source is an unpaved parking lot, multiply the resulting weight by 0.55. The resulting number is the estimated silt loading. Then, divide by the total weight of the sample you recorded earlier in Step 2 (Subsection 2.1.2(c) of this appendix) and multiply by 100 to estimate the percent silt content.

**i.** **Step 8**: Select another two routinely traveled portions of the unpaved road or unpaved parking lot and repeat this test method. Once you have calculated the silt loading and percent silt content of the 3 samples collected, average your results together.

**j.** **Step 9:** Examine Results. If the average silt loading is less than 0.33 oz/ft², the surface is STABLE. If the average silt loading is greater than or equal to 0.33 oz/ft², then proceed to examine the average percent silt content. If the source is an unpaved road and the average percent silt content is 6% or less, the surface is STABLE. If the source is an

unpaved parking lot and the average percent silt content is 8% or less, the surface is STABLE. If your field test results are within 2% of the standard (for example, 4%-8% silt content on an unpaved road), it is recommended that you collect 3 additional samples from the source according to Step 1 (Subsection 2.1.2(b) of this appendix) and take them to an independent laboratory for silt content analysis.

**k.** **Independent Laboratory Analysis:** You may choose to collect 3 samples from the source, according to Step 1 (Subsection 2.1.2(b) of this appendix), and send them to an independent laboratory for silt content analysis rather than conduct the sieve field procedure. If so, the test method the laboratory is required to use is: "Procedures For Laboratory Analysis Of Surface/Bulk Dust Loading Samples", (Fifth Edition, Volume I, Appendix C.2.3 "Silt Analysis", 1995), AP-42, Office of Air Quality Planning & Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina.

**2.2** **Stabilization Limitations For Open Areas And Vacant Lots.** The test methods described in Section 2.3 through Section 2.7 of this appendix shall be used to determine whether an open area or a vacant lot has a stabilized surface. Should a disturbed open area or vacant lot contain more than one type of disturbance, soil, vegetation, or other characteristics, which are visibly distinguishable, test each representative surface separately for stability, in an area that represents a random portion of the overall disturbed conditions of the site, according to the appropriate test methods in Section 2.3 through Section 2.7 of this appendix. ~~, and include or eliminate it from the total size assessment of disturbed surface area(s) depending upon test method results.~~

**2.3** **~~Visible~~ Soil Crust Determination (The Drop Ball Test).**

**2.1.2** **Silt Content Test Method.** The purpose of this test method is to estimate the silt content of the trafficked parts of unpaved roads and unpaved parking lots. The higher the silt content, the more fine dust particles that are released when cars and trucks drive on unpaved roads and unpaved parking lots.

**2.3.1** ~~Where a visible crust exists, drop~~ Drop a steel ball with a diameter of 15.9 millimeters (0.625 inches) and a mass ranging from 16-17 grams (0.56-0.60 ounce) from a distance of ~~30 centimeters (one foot)~~ one-foot directly above (at a 90° angle perpendicular to) the soil surface. If blowsand is present, clear the blowsand from the surfaces on which ~~the visible crust test method~~ Drop Ball Test is conducted. Blowsand is defined as thin deposits of loose uncombined grains covering less than 50% of a vacant lot or project site ~~which~~ that have not originated from the representative ~~vacant lot~~ surface being tested. If material covers a visible crust, which is not blowsand, apply the test method in Section 2.4-Determination Of Threshold Friction Velocity (TFV) of this appendix to the loose material to determine whether the surface is stabilized.

**2.3.2** A sufficient crust is defined under the following conditions: once a ball has been dropped according to subsection 2.3.1 of this appendix, the ball does not sink into the surface, so that it is partially or fully surrounded by loose grains and, upon removing the ball, the surface upon which it fell has not been pulverized, so that loose grains are visible.

**2.3.3** Randomly select each representative disturbed surface for the Drop Ball Test by using a blind “over the shoulder” toss of a throwable object (e.g., a metal weight with survey tape attached). Using the point of fall as the lower left-hand corner, measure a one-foot square area. Drop the ball three times within

~~a survey area that measures 1 foot by 1 foot and that represents a random portion of the overall disturbed conditions of the site~~ the one-foot by one-foot square survey area, using a consistent pattern across the survey area. The survey area shall be considered to have passed ~~the Visible Crust Determination Test~~ Drop Ball Test if at least two out of the three times that the ball was dropped, the results met the criteria in subsection 2.3.2 of this appendix. Select at least two other survey areas that represent a random portion of the overall disturbed conditions of the site, and repeat this procedure. If the results meet the criteria of subsection 2.3.2 of this appendix for all of the survey areas tested, then the site shall be considered to have passed the ~~Visible Crust Determination Test~~ Drop Ball Test and shall be considered sufficiently crusted.

**2.3.4** At any given site, the existence of a sufficient crust covering one portion of the site may not represent the existence or protectiveness of a crust on another portion of the site. Repeat the ~~visible crust test~~ Drop Ball Test as often as necessary on each ~~random~~ portion of the overall conditions of the site using the random selection method set forth in subsection 2.3.3 of this appendix for an accurate assessment.

**2.4 Determination Of Threshold Friction Velocity (TFV**). For disturbed surface areas that are not crusted or vegetated, determine threshold friction velocity (TFV) according to the following sieving field procedure (based on a 1952 laboratory procedure published by W. S. Chepil).

**2.4.1** Obtain and stack a set of sieves with the following openings: 4 millimeters (mm), 2 mm, 1 mm, 0.5 mm, and 0.25 mm or obtain and stack a set of standard/commonly available sieves. Place the sieves in order according to size openings, beginning with the largest size opening at the top. Place a collector pan underneath the bottom (0.25 mm) sieve. Collect a sample of loose surface material from an area at least 30 cm by 30 cm in size to a depth of approximately 1 cm using a brush and dustpan or other similar device. Only collect soil samples from dry surfaces (i.e. when the surface is not damp to the touch). Remove any rocks larger than 1 cm in diameter from the sample. Pour the sample into the top sieve (4 mm opening) and cover the sieve/collector pan unit with a lid. Minimize escape of particles into the air when transferring surface soil into the sieve/collector pan unit. Move the covered sieve/collector pan unit by hand using a broad, circular arm motion in the horizontal plane. Complete twenty circular arm movements, ten clockwise and ten counterclockwise, at a speed just necessary to achieve some relative horizontal motion between the sieves and the particles. Remove the lid from the sieve/collector pan unit and disassemble each sieve separately beginning with the largest sieve. As each sieve is removed, examine it for loose particles. If loose particles have not been sifted to the finest sieve through which they can pass, reassemble and cover the sieve/collector pan unit and gently rotate it an additional ten times. After disassembling the sieve/collector pan unit, slightly tilt and gently tap each sieve and the collector pan so that material aligns along one side. In doing so, minimize escape of particles into the air. Line up the sieves and collector pan in a row and visibly inspect the relative quantities of catch in order to determine which sieve (or whether the collector pan) contains the greatest volume of material. If a visual determination of relative volumes of catch among sieves is difficult, use a graduated cylinder to measure the volume. Estimate TFV for the sieve catch with the greatest volume using Table 1 of this appendix, which provides a correlation between sieve opening size and TFV.

**Table 1. Determination Of Threshold Friction Velocity**

| Tyler Sieve No. | ASTM 11 Sieve No. | Opening (mm) | TFV (cm/s) |
|---|---|---|---|
| 5 | 5 | 4 | 135 |
| 9 | 10 | 2 | 100 |
| 16 | 18 | 1 | 76 |
| 32 | 35 | 0.5 | 58 |
| 60 | 60 | 0.25 | 43 |
| Collector Pan | — | — | 30 |

**2.4.2** Collect at least three soil samples which represent random portions of the overall conditions of the site, repeat the above TFV test method for each sample and average the resulting TFVs together to determine the TFV uncorrected for non-erodible elements. Non-erodible elements are distinct elements, in the random portion of the overall conditions of the site, that are larger than 1 cm in diameter, remain firmly in place during a wind episode, and inhibit soil loss by consuming part of the shear stress of the wind. Non-erodible elements include stones and bulk surface material but do not include flat or standing vegetation. For surfaces with non-erodible elements, determine corrections to the TFV by identifying the fraction of the survey area, as viewed from directly overhead, that is occupied by non-erodible elements using the following procedure. For a more detailed description of this procedure, see Section 2.7 (Test Methods For Stabilization-Rock Test Method) of this appendix. Select a survey area of 1 meter by 1 meter that represents a random portion of the overall conditions of the site. Where many non-erodible elements lie within the survey area, separate the non-erodible elements into groups according to size. For each group, calculate the overhead area for the non-erodible elements according to the following equations:

(Average Length) x (Average Width) = Average Dimensions. Eq. 1
(Average Dimensions) x (Number Of Elements) = Overhead Area. Eq. 2
Overhead Area Of Group 1 + Overhead Area Of Group 2 (etc.) = Total Overhead Area. Eq. 3
Total Overhead Area/2 = Total Frontal Area. Eq. 4
(Total Frontal Area/Survey Area) x 100 = Percent Cover Of Non-Erodible Elements. Eq. 5

**Note:** Ensure consistent units of measurement (e.g., square meters or square inches when calculating percent cover).

Repeat this procedure on an additional two distinct survey areas that represent a random portion of the overall conditions of the site and average the results. Use Table 2 of this appendix to identify the correction factor for the percent cover of non-erodible elements. Multiply the TFV by the corresponding correction factor to calculate the TFV corrected for non-erodible elements.

**Table 2. Correction Factors For Threshold Friction Velocity**

| Percent Cover Of Non-Erodible Elements | Correction Factor |
|---|---|
| Greater than or equal to 10% | 5 |
| Greater than or equal to 5% and less than 10% | 3 |
| Less than 5% and greater than or equal to 1% | 2 |
| Less than 1% | None |

**2.5** **Determination Of Flat Vegetative Cover:** Flat vegetation includes attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind. Flat vegetation, which is

dead but firmly attached, shall be considered equally protective as live vegetation. Stones or other aggregate larger than 1 centimeter in diameter shall be considered protective cover in the course of conducting the line transect test method. Where flat vegetation exists, conduct the following line transect test method.

**2.5.1** **Line Transect Test Method.** Stretch a 100 foot measuring tape across a survey area that represents a random portion of the overall conditions of the site. Firmly anchor both ends of the measuring tape into the surface using a tool such as a screwdriver, with the tape stretched taut and close to the soil surface. If vegetation exists in regular rows, place the tape diagonally (at approximately a 45° angle) away from a parallel or perpendicular position to the vegetated rows. Pinpoint an area the size of a 3/32 inch diameter brazing rod or wooden dowel centered above each 1 foot interval mark along one edge of the tape. Count the number of times that flat vegetation lies directly underneath the pinpointed area at 1 foot intervals. Consistently observe the underlying surface from a 90° angle directly above each pinpoint on one side of the tape. Do not count the underlying surface as vegetated if any portion of the pinpoint extends beyond the edge of the vegetation underneath in any direction. If clumps of vegetation or vegetative debris lie underneath the pinpointed area, count the surface as vegetated, unless bare soil is visible directly below the pinpointed area. When 100 observations have been made, add together the number of times a surface was counted as vegetated. This total represents the percent of flat vegetation cover (e.g., if 35 positive counts were made, then vegetation cover is 35%). If the survey area that represents a random portion of the overall conditions of the site is too small for 100 observations, make as many observations as possible. Then multiply the count of vegetated surface areas by the appropriate conversion factor to obtain percent cover. For example, if vegetation was counted 20 times within a total of 50 observations, divide 20 by 50 and multiply by 100 to obtain a flat vegetation cover of 40%.

**2.5.2** Conduct the line transect test method, as described in subsection 2.5.1 of this appendix, an additional two times on areas that represent a random portion of the overall conditions of the site and average results.

**2.6** **Determination Of Standing Vegetative Cover.** Standing vegetation includes vegetation that is attached (rooted) with a predominant vertical orientation. Standing vegetation, which is dead but firmly rooted, shall be considered equally protective as live vegetation. Conduct the following standing vegetation test method to determine if 30% cover or more exists. If the resulting percent cover is less than 30% but equal to or greater than 10%, then conduct the test in Section 2.4 (Determination Of Threshold Friction Velocity (TFV)) of this appendix in order to determine if the site is stabilized, such that the standing vegetation cover is equal to or greater than 10%, where threshold friction velocity, corrected for non-erodible elements, is equal to or greater than 43 cm/second.

**2.6.1** For standing vegetation that consists of large, separate vegetative structures (e.g., shrubs and sagebrush), select a survey area that represents a random portion of the overall conditions of the site that is the shape of a square with sides equal to at least 10 times the average height of the vegetative structures. For smaller standing vegetation, select a survey area of three feet by three feet.

**2.6.2** Count the number of standing vegetative structures within the survey area. Count vegetation, which grows in clumps as a single unit. Where different types of vegetation exist and/or vegetation of different height and width exists, separate the vegetative structures with similar dimensions into groups.

Count the number of vegetative structures in each group within the survey area. Select an individual structure within each group that represents the average height and width of the vegetation in the group. If the structure is dense (e.g., when looking at it vertically from base to top there is little or zero open air space within its perimeter), calculate and record its frontal silhouette area, according to Equation 6 of this appendix. Also, use Equation 6 of this appendix to estimate the average height and width of the vegetation if the survey area is larger than nine square feet. Otherwise, use the procedure in subsection 2.6.3 of this appendix to calculate the frontal silhouette area. Then calculate the percent cover of standing vegetation according to Equations 7, 8, and 9 of this appendix.

(Average Height) x (Average Width) = Frontal Silhouette Area. Eq. 6

(Frontal Silhouette Area Of Individual Vegetative Structure) x (Number Of Vegetation Structures Per Group) = Frontal Silhouette Area Of Group. Eq. 7

Frontal Silhouette Area Of Group 1 + Frontal Silhouette Area Of Group 2 (etc.) = Total Frontal Silhouette Area. Eq. 8

(Total Frontal Silhouette Area/Survey Area) x 100 = Percent Cover Of Standing Vegetation. Eq. 9

[(Number Of Circled Gridlines Within The Outlined Area Counted That Are Not Covered By Vegetation/ Total Number Of Gridline Intersections Within The Outlined Area) x 100] = Percent Open Space. Eq. 10

100 - Percent Open Space = Percent Vegetative Density. Eq. 11

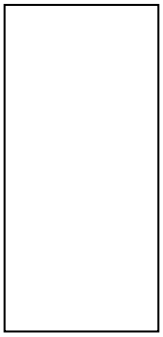
Percent Vegetative Density/100 = Vegetative Density. Eq. 12

[Max. Height x Max. Width] x [Vegetative Density/0.4]0.5 = Frontal Silhouette Area. Eq.13

**Note:** Ensure consistent units of measurement (e.g., square meters or square inches when calculating percent cover).

**2.6.3** **Vegetative Density Factor**. Cut a single, representative piece of vegetation (or consolidated vegetative structure) to within 1 cm of surface soil. Using a white paper grid or transparent grid over white paper, lay the vegetation flat on top of the grid (but do not apply pressure to flatten the structure). Grid boxes of 1 inch or 1/2 inch squares are sufficient for most vegetation when conducting this procedure. Using a marker or pencil, outline the shape of the vegetation along its outer perimeter, according to Figure B, C, or D of this appendix, as appropriate. (Note: Figure C differs from Figure D primarily in that the width of vegetation in Figure C is narrow at its base and gradually broadens to its tallest height. In Figure D, the width of the vegetation generally becomes narrower from its midpoint to its tallest height.) Remove the vegetation, count and record the total number of gridline intersections within the outlined area, but do not count gridline intersections that connect with the outlined shape. There must be at least 10 gridline intersections within the outlined area and preferably more than 20, otherwise, use smaller grid boxes. Draw small circles (no greater than a 3/32 inch diameter) at each gridline intersection counted within the outlined area. Replace the vegetation on the grid within its outlined shape. From a distance of approximately 2 feet directly above the grid, observe each circled gridline intersection. Count and record the number of circled gridline intersections that are not covered by any piece of the vegetation. To calculate percent vegetative density, use Equations 10 and 11 of this appendix. If percent vegetative density is equal to or greater than 30, use an equation (one of the equations-Equations 16, 17, or 18 of this appendix) that matches the outline used to trace the vegetation (Figure B, C, or D) to calculate its frontal silhouette area. If percent vegetative density is less than 30, use Equations 12 and 13 of this appendix to calculate the frontal silhouette area.

**Figure B. Cylinder**

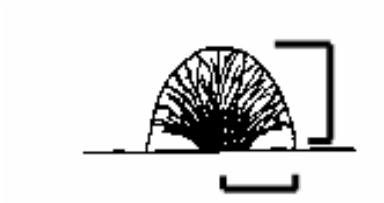


Frontal Silhouette Area = Maximum Height x Maximum Width Eq. 16

**Figure C. Inverted Cone**

Frontal Silhouette Area = Maximum Height x 1/2 Maximum Width Eq. 17

**Figure D. Upper Sphere**



Frontal Silhouette Area = (3.14 x Maximum Height x 1/2 Maximum Width)/2 Eq. 18

**2.7** **Rock Test Method.** The Rock Test Method, which is similar to Section 2.4 (Test Methods For Stabilization-Determination Of Threshold Friction Velocity (TFV)) of this appendix, examines the wind-resistance effects of rocks and other non-erodible elements on disturbed surfaces. Non-erodible elements are objects larger than 1 centimeter (cm) in diameter that remain firmly in place even on windy days. Typically, non-erodible elements include rocks, stones, glass fragments, and hardpacked 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 method is to estimate the percent cover of non-erodible elements on a given surface to see whether such elements take up enough space to offer protection against windblown dust. For simplification, the following test method refers to all non-erodible elements as "rocks".

**2.7.1** Select a 1 meter by 1 meter survey area that represents the general rock distribution on the surface. (A 1 meter by 1 meter area is slightly greater than a 3 foot by 3 foot area.) Mark-off the survey area by tracing a straight, visible line in the dirt along the edge of a measuring tape or by placing short ropes, yard sticks, or other straight objects in a square around the survey area.

**2.7.2** Without moving any of the rocks or other elements, examine the survey area. Since rocks >3/8 inch (1 cm) in diameter are of interest, measure the diameter of some of the smaller rocks to a get a sense for which rocks need to be considered.

**2.7.3** Mentally group the rocks >3/8 inch (1 cm) diameter lying in the survey area into small, medium, and large size categories. Or, if the rocks are all approximately the same size, simply select a rock of average size and typical shape. Without removing any of the rocks from the ground, count the number of rocks in the survey area in each group and write down the resulting number.

**2.7.4** Without removing rocks, select one or two average-size rocks in each group and measure the length and width. Use either metric units or standard units. Using a calculator, multiply the length times the width of the rocks to get the average dimensions of the rocks in each group. Write down the results for each rock group.

**2.7.5** For each rock group, multiply the average dimensions (length times width) by the number of rocks counted in the group. Add the results from each rock group to get the total rock area within the survey area.

**2.7.6** Divide the total rock area, calculated in subsection 2.7.5 of this appendix, by two (to get frontal area). Divide the resulting number by the size of the survey area (make sure the units of measurement match), and multiply by 100 for percent rock cover. For example, the total rock area is 1,400 square centimeters, divide 1,400 by 2 to get 700. Divide 700 by 10,000 (the survey area is 1 meter by 1 meter, which is 100 centimeters by 100 centimeters or 10,000 centimeters) and multiply by 100. The result is 7% rock cover. If rock measurements are made in inches, convert the survey area from meters to inches (1 inch = 2.54 centimeters).

**2.7.7** Select and mark-off two additional survey areas and repeat the procedures described in subsection 2.7.1 through subsection 2.7.6 of this appendix. Make sure the additional survey areas also represent the general rock distribution on the site. Average the percent cover results from all three survey areas to estimate the average percent of rock cover.

**2.7.8** If the average rock cover is greater than or equal to 10%, the surface is stable. If the average rock cover is less than 10%, follow the procedures in subsection 2.7.9 of this appendix.

**2.7.9** If the average rock cover is less than 10%, the surface may or may not be stable. Follow the procedures in Section 2.4 (Determination Of Threshold Friction Velocity (TFV)) of this rule and use the results from the rock test method as a correction (i.e., multiplication) factor. If the rock cover is at least 1%, such rock cover helps to limit windblown dust. However, depending on the soil's ability to release fine dust particles into the air, the percent rock cover may or may not be sufficient enough to stabilize the surface. It is also possible that the soil itself has a high enough TFV to be stable without even accounting for rock cover.

**2.7.10** After completing the procedures described in subsection 2.7.9 of this appendix, use Table 2 of this appendix to identify the appropriate correction factor to the TFV, depending on the percent rock cover. Multiply the correction factor by the TFV value for a final TFV estimate that is corrected for non-erodible elements.

## 3. ~~TIME AVERAGED METHODS OF~~ VISUAL OPACITY DETERMINATION OF EMISSIONS FROM DUST GENERATING OPERATIONS

**3.1** **Applicability.** This method is applicable for the determination of opacity of fugitive dust plumes from dust generating operations. ~~A time-averaged regulation is any regulation that requires averaging visible emission data to determine the opacity of visible emissions over a specific time period.~~

**3.2** **Principle**. The opacity of emissions from sources of visible emissions is determined visually by an observer qualified according to the procedures of Section 3.4 of this appendix.

**3.3** **Procedures**. An observer qualified, in accordance with Section 3.4 of this appendix, shall use the following procedures for visually determining the opacity of emissions.

~~3.3.1~~ ~~Procedures For Emissions From Stationary Sources. These procedures are not applicable to this section.~~

~~3.3.2~~**3.3.1** To determine the opacity of non-continuous dust plumes caused by activities including, but not limited to, bulk material loading/unloading, non-conveyorized screening, or trenching with backhoes:

**a.** **Position.** Stand at least 25 feet from the dust generating operation in order to provide a clear view of the emissions with the sun oriented in the 140º sector to the back. Choose a discrete portion of the operation for observation, such as the unloading point, not the whole operation. Following the above requirements, make opacity observations so that the line of vision is approximately perpendicular to the dust plume and wind direction. If multiple plumes are involved, do not include more than one plume in the line of sight at one time.

**b.** **Initial Fallout Zone.** The initial fallout zone within the plume must be identified. Record the distance from the equipment or path that is your identified initial fallout zone. The initial fallout zone is that area where the heaviest particles drop out of the entrained fugitive dust plume.

Opacity readings should be taken at the maximum point of the entrained fugitive dust plume that is located outside the initial fallout zone.

**c.** **Field Records.** Note the following on an observational record sheet:
1. Location of dust generating operation, type of operation, type of equipment in use and activity, and method of control used, if any;
2. Observer's name, certification data and affiliation, a sketch of the observer's position relative to the dust generating operation, and observer's estimated distance and direction to the location of the dust generating operation;
3. Time that readings begin, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds); and
4. Color of the plume and type of background.

**d.** **Observations**. Make opacity observations, to the extent possible, using a contrasting background that is perpendicular to the line of vision. Make two observations per discrete activity, beginning with the first reading at zero seconds and the second reading at five seconds. The zero-second observation should begin immediately after a plume has been created above the surface involved. Do not look continuously at the plume but, instead, observe the plume briefly at zero seconds and then again at five seconds.

**e.** **Recording Observations.** Record the opacity observations to the nearest 5% on an observational record sheet. Each momentary observation recorded represents the average opacity of emissions for a 5-second period. Repeat observations until you have recorded at least a total of 12 consecutive opacity readings. The 12 consecutive readings must be taken within the same period of observation but must not exceed one hour. Observations immediately preceding and following interrupted observations can be considered consecutive (e.g., vehicle traveled in front of path, plume doubled-over).

**f.** **Data Reduction.** Average 12 consecutive opacity readings together. If the average opacity reading equals 20% or lower, the dust generating operation is in compliance. ~~with the opacity standard described in Rule 310 of these rules.~~

~~3.3.3~~**3.3.2** To determine the opacity of continuous dust plumes caused by equipment and activities including but not limited to graders, trenchers, paddlewheels, blades, clearing, leveling, and raking:

**a.** **Position.** Stand at least 25 feet from the dust generating operation to provide a clear view of the emissions with the sun oriented in the 140º sector to your back. Following the above requirements, make opacity observations so that the line of vision is approximately perpendicular to the dust plume and wind direction.

**b.** **Dust Plume.** Evaluate the dust plume generation and determine if the observations will be made from a single plume or from multiple related plumes.
**1.** If a single piece of equipment is observed working, then all measurements should be taken off the resultant plume as long as the equipment remains within the 140º sector to the back.

2. If there are multiple related sources or multiple related points of emissions of dust from a particular activity, or multiple pieces of equipment operating in a confined area, opacity readings should be taken at the densest point within the discrete length of equipment travel path within the 140º sector to the back. Readings can be taken for more than one piece of equipment within the discrete length of travel path within the 140º sector to the back.

**c.** **Initial Fallout Zone.** The initial fallout zone within the plume must be identified. Record the distance from the equipment or path that is your identified initial fallout zone. The initial fallout zone is that area where the heaviest particles drop out of the entrained fugitive dust plume. Opacity readings should be taken at the maximum point of the entrained fugitive dust plume that is located outside the initial fallout zone.

**d.** **Field Records.** Note the following on an observational record sheet:

1. Location of the dust generating operation, type of operation, type of equipment in use and activity, and method of control used, if any;
2. Observer's name, certification data and affiliation, a sketch of the observer's position relative to the dust generating operation, and observer's estimated distance and direction to the location of the dust generating operation; and
3. Time that readings begin, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds).

**e.** **Observations.** Make opacity observations, to the extent possible, using a contrasting background that is perpendicular to the line of vision. Make opacity observations at a point beyond the fallout zone. The observations should be made at the densest point. Observations will be made every 10 seconds until at least 12 readings have been recorded. Do not look continuously at the plume, but observe the plume momentarily at 10-second intervals. If the equipment generating the plume travels outside the field of observation or if the equipment ceases to operate, mark an "x" for the 10-second reading interval. Mark an "x" when plumes are stacked or doubled, either behind or in front, or become parallel to line of sight. Opacity readings identified as "x" shall be considered interrupted readings.

**f.** **Recording Observations.** Record the opacity observations to the nearest 5% on an observational record sheet. Each momentary observation recorded represents the average opacity of emissions for a 10-second period.

**g.** **Data Reduction.** Average 12 consecutive opacity readings together. If the average opacity reading equals 20% or lower, the dust generating operation is in compliance. ~~with the opacity standard described in Rule 310 of these rules.~~

## 3.4 Qualification and Testing.

**3.4.1** Certification Requirements. To receive certification as a qualified observer, a candidate must be tested and demonstrate the ability to assign opacity readings in 5% increments to 25 different black plumes and 25 different white

plumes, with an error not to exceed 15% opacity on any one reading and an average error not to exceed 7.5% opacity in each category. Candidates shall be tested according to the procedures described in subsection 3.4.2 of this appendix. Any smoke generator used pursuant to subsection 3.4.2 of this appendix shall be equipped with a smoke meter, which meets the requirements of subsection 3.4.3 of this appendix. Certification tests that do not meet the requirements of subsections 3.4.2 and 3.4.3 of this appendix are not valid. The certification shall be valid for a period of 6 months, and after each 6-month period the qualification procedures must be repeated by an observer in order to retain certification.

**3.4.2** **Certification Procedure.** The certification test consists of showing the candidate a complete run of 50 plumes, 25 black plumes and 25 white plumes, generated by a smoke generator. Plumes shall be presented in random order within each set of 25 black and 25 white plumes. The candidate assigns an opacity value to each plume and records the observation on a suitable form. At the completion of each run of 50 readings, the score of the candidate is determined. If a candidate fails to qualify, the complete run of 50 readings must be repeated in any retest. The smoke test may be administered as part of a smoke school or training program, and may be preceded by training or familiarization runs of the smoke generator, during which candidates are shown black and white plumes of known opacity.

**3.4.3** **Smoke Generator Specifications**. Any smoke generator used for the purpose of subsection 3.4.2 of this appendix shall be equipped with a smoke meter installed to measure opacity across the diameter of the smoke generator stack. The smoke meter output shall display in-stack opacity, based upon a path length equal to the stack exit diameter on a full 0% to 100% chart recorder scale. The smoke meter optical design and performance shall meet the specifications shown in Table A of this appendix. The smoke meter shall be calibrated as prescribed in subsection 3.4.3(a) of this appendix prior to conducting each smoke reading test. At the completion of each test, the zero and span drift shall be checked, and if the drift exceeds plus or minus 1% opacity, the condition shall be corrected prior to conducting any subsequent test runs. The smoke meter shall be demonstrated, at the time of installation, to meet the specifications listed in Table A of this appendix. This demonstration shall be repeated following any subsequent repair or replacement of the photocell or associated electronic circuitry, including the chart recorder or output meter, or every 6 months, whichever occurs first.

**a.** **Calibration**. The smoke meter is calibrated after allowing a minimum of 30 minutes warm-up by alternately producing simulated opacity of 0% and 100%. When stable response at 0% or 100% is noted, the smoke meter is adjusted to produce an output of 0% or 100%, as appropriate. This calibration shall be repeated until stable 0% and 100% readings are produced without adjustment. Simulated 0% and 100% opacity values may be produced by alternately switching the power to the light source on and off while the smoke generator is not producing smoke.

**b.** **Smoke Meter Evaluation**. The smoke meter design and performance are to be evaluated as follows:

**1.** **Light Source.** Verify, from manufacturer's data and from voltage measurements made at the lamp, as installed, that the lamp is operated within plus or minus 5% of the nominal rated voltage.

2. **Spectral Response Of Photocell.** Verify from manufacturer's data that the photocell has a photopic response (i.e., the spectral sensitivity of the cell shall closely approximate the standard spectral-luminosity curve for photopic vision which is referenced in (b) of Table A of this appendix).

3. **Angle Of View.** Check construction geometry to ensure that the total angle of view of the smoke plume, as seen by the photocell, does not exceed 15°. Calculate the total angle of view as follows:
Total Angle Of View = $2\tan^{-1} d/2L$
Where:
d = The photocell diameter + the diameter of the limiting aperture; and
L = The distance from the photocell to the limiting aperture. The limiting aperture is the point in the path between the photocell and the smoke plume where the angle of view is most restricted. In smoke generator smoke meters, this is normally an orifice plate.

4. **Angle Of Projection.** Check construction geometry to ensure that the total angle of projection of the lamp on the smoke plume does not exceed 15°. Calculate the total angle of projection as follows:
Total Angle Of Projection = $2\tan^{-1} d/2L$
Where:
d = The sum of the length of the lamp filament + the diameter of the limiting aperture; and
L = The distance from the lamp to the limiting aperture.

5. **Calibration Error.** Using neutral-density filters of known opacity, check the error between the actual response and the theoretical linear response of the smoke meter. This check is accomplished by first calibrating the smoke meter, according to subsection 3.4.3(a) of this appendix, and then inserting a series of three neutral-density filters of nominal opacity of 20%, 50%, and 75% in the smoke meter path length. Use filters calibrated within plus or minus 2%. Care should be taken when inserting the filters to prevent stray light from affecting the meter. Make a total of five nonconsecutive readings for each filter. The maximum opacity error on any one reading shall be plus or minus 3%.

6. **Zero And Span Drift.** Determine the zero and span drift by calibrating and operating the smoke generator in a normal manner over a 1-hour period. The drift is measured by checking the zero and span at the end of this period.

7. **Response Time.** Determine the response time by producing the series of five simulated 0% and 100% opacity values and observing the time required to reach stable response. Opacity values of 0% and 100% may be simulated by alternately switching the power to the light source off and on while the smoke generator is not operating.

**Table A. Smoke Meter Design And Performance Specifications**

| Parameter | Specification |
|---|---|
| a. Light Source | Incandescent lamp operated at nominal rated voltage. |
| b. Spectral response of photocell | Photopic (daylight spectral response of the human eye). |
| c. Angle of view | 15° maximum total angle |
| d. Angle of projection | 15° maximum total angle |
| e. Calibration error | Plus or minus 3% opacity, maximum. |
| f. Zero and span drift | Plus or minus 1% opacity, 30 minutes. |
| g. Response time | Less than or equal to 5 seconds |

## 4. VISUAL OPACITY DETERMINATION OF EMISSIONS FROM LIVESTOCK ACTIVITIES - CORRALS, PENS, AND ARENAS

**4.1** **Applicability.** This method is applicable for the determination of opacity of fugitive dust plumes from livestock activities-corrals, pens, and arenas.

**4.2** **Principle**. The opacity of emissions from livestock activities-corrals, pens, and arenas is determined visually by an observer qualified according to Section 3.4 of this appendix.

**4.3** **Procedures**. An observer qualified, in accordance with Section 3.4 of this appendix, shall use the following procedures for visually determining the opacity of emissions:

**4.3.1** **Position.** Stand at a position at least 5 meters from the livestock activities-corrals, pens, and arenas in order to provide a clear view of the emissions with the sun oriented in the 140° sector to the back. Consistent as much as possible with maintaining the above requirements, make opacity observations from a position such that the line of sight is approximately perpendicular to the plume and wind direction. As much as possible, if multiple plumes are involved, do not include more than one plume in the line of sight at one time.

**4.3.2** **Field Records.** Record the name of the site, method of control used, if any, observer's name, certification data and affiliation, and a sketch of the observer's position relative to the livestock activity-corrals, pens, and arenas. Also, record the time, estimated distance to the livestock activity-corrals, pens, and arenas location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), observer's position relative to the livestock activity-corrals, pens, and arenas, and color of the plume and type of background on the visible emission observation from when opacity readings are initiated and completed.

**4.3.3** **Observations.** Make opacity observations, to the extent possible, using a contrasting background. For storage piles, make opacity observations approximately 1 meter above the surface from which the plume is generated. The initial observation should begin immediately after a plume has been created above the surface involved. Do not look continuously at the plume, but instead observe the plume momentarily at 15-second intervals.

**4.3.4** **Recording Observations.** Record the opacity observations to the nearest 5% every 15 seconds on an observational record sheet. If a multiple plume exists at the time of an observation, do not record an opacity reading. Mark an “x” for that reading. If the livestock activity-corrals, pens, and arenas ceases operating, mark an “x” for the 15-second interval reading. Readings identified as “x” shall be considered interrupted readings.

**4.3.5** **Data Reduction.** Within any 60-minute period, count at least three minutes that are greater than 20% opacity. If at least 13 readings are greater than 20% opacity, the livestock activity-corrals, pens, and arenas is not in compliance. Readings immediately preceding and following interrupted readings shall be deemed consecutive and in no case shall two sets overlap, resulting in multiple violations.