

Pinal County Air Quality Control District

P. O. Box 987
Florence, Arizona 85132

(520) 866-6929 Fax: (520) 866-6967

Intended for Publication on November 20, 2015

PINAL COUNTY AIR QUALITY CONTROL DISTRICT

NOTICE OF FINAL RULEMAKING PURSUANT TO A.R.S. §49-471.01 *et seq.*

1. Preamble

- A. The Pinal County Air Quality Control District (PCAQCD), an operating division of Pinal County, proposed that the Board of Supervisors (BOS) adopt or amend certain rules under authority of A.R.S. §§49-479, which respectively authorize the board to adopt rules to control air pollution.

Due to ongoing monitoring violations of the PM₁₀ (Particulate Matter 10 microns and smaller) National Ambient Air Quality Standard (NAAQS) in Pinal County (under both stagnation and high wind conditions), in 2012 the Environmental Protection Agency (EPA) designated a large portion of Pinal County as a moderate PM₁₀ nonattainment area (West Pinal PM₁₀ Nonattainment Area – defined in 40 CFR §81.303). Subsequently as a Clean Air Act (CAA) requirement for nonattainment areas, The Arizona Department of Environmental Quality (ADEQ) in coordination with Pinal County Air Quality Control District (PCAQCD) developed base year and attainment year PM₁₀ emissions inventories (EI) for the nonattainment area. The top three emissions sources in the 2008 base year PM₁₀ inventory for the West Pinal PM₁₀ Nonattainment area were windblown dust (53%), unpaved roads (32%) and construction (9%).

Windblown PM₁₀ emissions are related to both activity and ground surface conditions (i.e. unstable ground surface conditions caused by activities impacted by windy conditions that result in PM₁₀ emissions). There are a number of land use categories associated with windblown PM₁₀ emissions, including open areas/vacant lands, unpaved roads and unpaved parking lots. The unpaved roads PM₁₀ emissions associated with PM₁₀ exceedances in the nonattainment area occur under both windblown and stagnation conditions. The adopted rules include standards (opacity, stabilization) which are designed to limit unpaved roads emissions under both windblown and stagnation conditions.

These adopted general fugitive dust rules include opacity and ground stabilization standards which limit PM₁₀ emissions attributed to both stagnation and windy conditions for the aforementioned land use categories. In addition the adopted rules provide recordkeeping requirements that ensure verification by PCAQCD, ADEQ and EPA.

The Pinal County Board of Supervisors adopted the proposed additions and amendments listed in section B below at their October 28, 2015 meeting.

The adopted amended and new rules are identified below and include an amendment to §1-1-105 with the ultimate purpose of this rulemaking being the submittal of the adopted rules in Chapter 4, Article 1, as elements of the Arizona State Implementation Plan (SIP) as required under the Clean Air Act (CAA).

- B. All of the adopted corresponding changes are discussed in subsection E. of this preamble, and include the following sections:

Section Affected	Rulemaking Action
§1-1-105. SIP List	Amend
§4-1-010. Adopted document(s).....	Amend
§4-1-015. Exemptions	New
§4-1-020. Definitions	New
§4-1-030. Standards.....	New
§4-1-040. Recordkeeping	New
§4-1-045. Reporting Requirements	New
§4-1-050. Records Retention.....	New
§4-1-060. Violations.....	New

- C. Those wishing further information regarding any aspect of this rulemaking may contact Scott DiBiase, Pinal County Air Quality, 31 North Pinal St., Building F, Florence, Arizona, 85132, 520-866-6929, scott.dibiase@pinalcountyz.gov.

- D. The rule making process consisted of the initial administrative rule development process, including the combined notice of proposed rulemaking and oral proceeding, a 30 day public comment period, and an oral proceeding before the Control Officer or his designee on September 28, 2015. Written comments were due prior to the close of the comment period, which was the close-of-business on the day of the oral proceeding. The final step in the rule adoption process was a hearing before the Board of Supervisors on October 28, 2015.

- E. The adopted revisions include the following:

1. §1-1-105 – Addition of Chapter 4, Article 1 and its adoption date to Section 1-1-105 which is a list designating which rules (and their corresponding adoption dates) are to be presented to the Governor of Arizona for transmittal to the Administrator of the EPA with a request that they be included as elements in the Arizona SIP
2. Amendment of Chapter 4, Article 1, §010,
 - Amendment of the section titled “Adopted document(s)” by replacement of title with the new title “General Applicability”. Removal of the original language which adopted ADEQ rules (Title 18, Chapter 2, Article 6) by reference and replacement with the purpose of the general fugitive dust rules, effective date and geographic scope of the rules.
3. Addition of new section (§4-1-015. Exemptions) which define the exemptions to the new general fugitive dust rules, including the following:

- Vehicle test and development facilities and operations where dust is required to test and validate the design integrity, product quality and/or commercial acceptance of the product(s).
 - Emergency response activities that address a situation arising from a sudden and unforeseeable event beyond the control of the owner and/or operator, including acts of God.
 - Normal farm cultural practices with reference to the Arizona Revised Statutes that define what normal farm cultural practices are and the ADEQ rules that regulate them.
 - Dust generating operations (i.e. construction).
 - Establishment of initial landscapes without use of mechanized equipment, and playing on or maintaining a field used for non-motorized sports.
4. Addition of Chapter 4, Article 1, §020 (Definitions),
 - Sixteen definitions directly related to these rules.
 5. Addition of Chapter 4, Article 1, §030 (Standards)
 - Subsection 1 – General requirements
 - A. The owner and/or operator of several land use categories (open areas/vacant lots, unpaved commercial lots, unpaved roads and paved public roadways) shall be subject to the standards and/or requirements in the rule. Failure to do so is deemed a violation.
 - B. The owner and/or operator shall implement applicable control measures.
 - C. The control measures are implemented to meet the visible emissions and stabilization requirements along with compliance determinations for each applicable category.
 - D. Failure to implement control measures and/or failure to maintain stabilization requirements is deemed a violation of this rule.
 - Subsection 2 – Open areas/vacant lots
 - A. Visible emissions and stabilization requirements – 20% opacity limit for fugitive dust emissions on the property.
 - B. When trespass takes place in open areas/vacant lots, the owner and/or operator shall install and maintain either no trespassing signs or physical barriers (i.e. curbs, fences, gates, etc.).
 - C. Surface stabilization requirement for open areas/vacant lots 1.0 acre or larger that have 0.5 acre or more of disturbed surface area with control measures listed.
 - D. Within thirty days following discovery of disturbed surface areas (0.5+ acre for open areas/vacant lots 1.0+ acre) in open areas/vacant lots, the owner and/or operator shall sign up to receive the Pinal County Dust Control Forecast. The owner and/or operator shall ensure their respective open area/vacant lot is stabilized the day leading up to and day of high risk forecast.
 - E. Open areas/vacant lots stabilization and trackout requirements for vegetation removal.
 - F. Compliance determination.

- Subsection 3- Unpaved lots
 - A. Visible emissions and stabilization requirements for unpaved lots (5,000+ ft² in size) including control measures.
 - B. Control measures shall be considered effectively implemented when the unpaved lot meets the opacity and stabilization requirements.
 - Subsection 4 – Unpaved roads
 - A. Unpaved roads with Average Daily Traffic (ADT) greater than 150 are subject to the opacity (20%) and stabilization (silt loading or silt content) standards and need to implement one of the control measures (i.e. pave, dust suppressants, gravel)
 - B. Control measures are considered effectively implemented when:
 - i. One of the control measures is implemented on 15 miles per year of unpaved roads having ADT great than 150.
 - a. When the control measure is the application/maintenance of dust suppressants, it will only count towards the 15 miles per year requirement when,
 - i. Done on unpaved roads previously untreated, and
 - ii. Dust suppressant application/maintenance of unpaved road previously treated continues annually until the unpaved road is paved.
 - iii. For year 2019 and beyond, the mileage equivalency method for determining the number of miles of unpaved roads with ADT less than 150 that have control measures applied on them when compared to public unpaved roads with ADT greater than 150. The equivalency method is used to determine compliance with the 15 miles per year stabilization requirement of public unpaved roads with ADT great than 150 to those public unpaved roads that have ADT less than 150 and are treated by control measures.
 - Subsection 5 – Paved public roadway
 - A. Trackout cleanup provisions for trackout that extends 50 feet or more.
 - i. Within 24 hours of discovery, remove the trackout with one of the control measures listed.
 - ii. During removal of trackout, do so in a manner that doesn't cause another source of fugitive dust.
 - iii. Trackout cleanup extension provision
 - B. Stabilization and trackout provisions for work done on unpaved shoulders adjacent to paved public roadways.
6. Addition of Chapter 4, Article 1, §040 (Recordkeeping)

Recordkeeping requirements for any person subject to the rules including records of control measure application, date(s) of

application. Records should be provided within 48 hours of request by control officer. However records should be provided without delay if the control officer is at the location where the records are kept.

7. Addition of Chapter 4, Article 1, §050 (Records retention)

Two year records retention requirement.

8. Addition of Chapter 4, Article 1, §060 (Violations)

Violation provisions for these rules.

Violation exemptions include:

- i. Wind conditions that cause fugitive dust to exceed the opacity standard – as long the control measures are implemented, applied and maintained and all dust contributing surface areas are stabilized.
- ii. Emergency maintenance of flood control channels as long as at least one control measure is applied and maintained.

F. A reference to any study relevant to the rule that the agency reviewed and either relied on in its evaluation of or justification for the rule or did not rely on in its evaluation of or justification for the rule, where the public may obtain or review each study (See contact information in subsection C above), all data underlying each study, and any analysis of each study and other supporting material:

Draft ADEQ document “Pinal PM₁₀ Emission Inventories and Source Apportionment Modeling Results”.

G. Economic, small business and consumer impact statement

Open areas/Vacant lots

There are currently no estimated costs to owners and/or operators of open areas/vacant lots that may be potentially affected by the adopted general fugitive dust rules. PCAQCD is in the process of assessing the extent of the ownership for parcels classified as open areas/vacant lots and the subset of them that exceed the adopted 1.0 acre or larger threshold. For those open areas/vacant lots that do reach the adopted 1 acre threshold, there may be some incremental costs associated with determining stability at their respective open area/vacant lot. Additionally, if there is evidence of trespass the owner and/or operator of the open area/vacant lot will be required to either install no trespassing signs or physical barriers. The size of the open area/vacant lot and control measure chosen by the owner and/or operator will determine the additional incremental costs potentially affecting them.

The adopted rules include new restrictions on owners and/or operators that choose to remove vegetation from their lots. The restrictions include applying a dust suppressant to

the surface area disturbed prior to, during and after the weed abatement. The adopted rules include additional trackout requirements associated with weed abatement activities. All of these new adopted restrictions will add to the incremental costs associated with owners and/or operators of open area.

Unpaved Lots

Currently there are no estimated costs to potentially affected parties of unpaved lots by the adopted general fugitive dust rules. PCAQCD is in the process of assessing the extent of the parcels that have unpaved lots greater than the size threshold adopted (5,000 square feet). For those unpaved lots that do exceed the 5,000 square foot threshold, there may be some incremental costs associated with determining stability at their respective unpaved lot. If the stability of the unpaved lots needs to be addressed, there will be additional costs by the owner and/operator to stabilize by use of one of the following control measures (paving, applying dust suppressants, applying gravel or an alternative control measure).

Unpaved Roads

The regulated community in the adopted rules for unpaved public roads includes Pinal County, Casa Grande, Maricopa, Florence, Coolidge, Eloy and Queen Creek. The requirements in §4-1-030.4, in particular subsection 4.B.ii will add significant costs to the regulated communities. The application of control measures on 15 miles per year of unpaved roads are in addition to what's already in the 2016-2018 Transportation Improvement Program (TIP). The TIP is a five year plan of transportation projects for each entity that includes projects such as application of dust suppressants to unpaved roads, chip-seal and paving projects, etc. Therefore the requirement to apply control measures on an additional 15 miles per year of public unpaved roads has significant economic and fiscal impact to the regulated community. The approximate cost to chip-seal an average 28 foot wide unpaved road is \$100,000 per mile. Assuming the 15 miles per year requirement in §4-1-030.4.B.ii were accomplished by chip sealing then the added economic impact to the regulated community would be approximately \$1.5 million per year. The regulated community does have other control measures available including application of dust suppressants. However in order to be counted towards the 15 miles per year requirement, the regulated entity that does use dust suppressant will be required to do so on a public unpaved road not previously treated and continue application and maintenance of the dust suppressant on that particular road until it is eventually paved.

Paved Public Roadways

The trackout requirements in the adopted rules (§4-1-030.5) will create incremental costs to the regulated entities. However current business practice by most of the regulated community is to address cleanup of trackout by conducting street sweeping on the offending portion of the paved road. Several of the street sweepers in the West Pinal PM₁₀ nonattainment area are PM₁₀ efficient street sweepers. The PM₁₀ efficient street sweepers are typically purchased through the Congestion Mitigation and Air Quality (CMAQ) process which includes a requirement for the local agency to match a certain percentage of the cost of the street sweeper. In this case the local match requirement for CMAQ funding is 5.7% which is approximate \$13,500 per PM₁₀ efficient street sweeper.

In addition, labor costs associated with each street sweeper for maintenance and operation is ongoing.

The adopted rules also include stabilization requirements for work done on unpaved shoulders. The stabilization requirements (application of dust suppressant(s) to the total surface area subject to the disturbance in sufficient quantity and frequency) associated with any work done on unpaved shoulders will also add incremental costs to the regulated universe. There is also a trackout provision attributed to the treatment of unpaved shoulders which will require the application of a dust suppressant but also potentially the use of a PM₁₀ efficient street sweeper.

Pinal County

The estimated costs for PCAQCD are those that accrue from development, implementation and enforcement of the new standards. PCAQCD has an ongoing internal assessment of the costs associated with implementation and enforcement of its permitting, administration and field services activities associated with dust (construction fugitive dust and general fugitive dust) and open burning. Future rulemaking proposals will include estimates on the costs associated with these various programs and if needed, any proposed changes to associated dust and open burning permit fees.

H. The adopted changes will take effect January 1, 2016.

I. Compliance with the Fee-limitations of A.R.S. §49-112 (A) or (B).

Based on information and belief, the Director of the Pinal County Air Quality Control District affirms the following:

Initially, the total of the fees and other charges currently assessed in connection with the administration of the County's air quality program do not now equal the cost of program administration. To the extent that both the County and ADEQ impose parallel fees, the County's fees are capped by rule at ADEQ's rates, which implicitly affirms that the County's fees are reasonable. To the extent the County's program affects certain sources that ADEQ either does not regulate or does not charge, these adopted changes do not impose any additional fees on those sources at this time.

J. Persons may obtain a full copy of the adopted rules or existing rules at:

Pinal County Air Quality Control District
31 North Pinal St., Building F.
P.O. Box 987
Florence, AZ. 85132

<http://www.pinalcountyaz.gov/AirQuality/Pages/home.aspx>

K. A list of all previous notices appearing in the Register addressing the adopted rules:

Notice of Rulemaking Docket Opening: 21 A.A.R. 35, 1730, August 28, 2015.

2. The full text of the adopted changes follows:

1-1-105. SIP list

A. As a declaration of Board policy rather than a rule, and subject to the limitations of paragraphs B. and C. of this section, the Board of Supervisors expressly designates the following list of sections within this Code, to be presented to the Governor of Arizona for transmittal to the Administrator of the EPA with a request that they be included as elements in the Arizona SIP:

1. Chapter 1
 - a. Article 1.(As amended 5/14/97 and 5/27/98), except for §§1-1-105 and 1-1-107.
 - b. Article 2 (As amended 5/14/97 and 7/12/00) except for §1-2-110.
 - c. Article 3. (As amended 5/14/97, 5/27/98 and 10/27/04, 07/23/14, except for §1-3-130 and the definition in §1-3-140.82 (10/12/95) of "maximum achievable control technology.")
2. Chapter 2
 - a. Article 1. (As amended 10/12/95).
 - b. Article 2. (As amended 5/14/97).
 - c. Article 3. (As amended 10/12/95).
 - d. Article 4. (As amended 10/12/95).
 - e. Article 5. (As amended 10/12/95).
 - f. Article 6. (As amended 10/12/95).
 - g. Article 7. (As amended 10/12/95).
 - h. Article 8. (As amended 5/18/05, as amended 1/7/09).
3. Chapter 3
 - a. Article 1. (As amended 5/14/97, and 5/27/98 and 7/12/00), excluding:
 - i. §3-1-020
 - ii. §3-1-045
 - iii. §3-1-080
 - iv. §3-1-100
 - b. Article 2. (As amended 10/12/95, 5/27/98 and 7/29/98).
 - c. Article 3. (As amended 10/12/95, 5/27/15).
 - d. Article 8. (As amended 10/12/95 and 10/27/04).
4. Chapter 4
 - a. Article 1. (As amended 2/22/95, 10/28/15).
 - b. Article 2. (As amended 5/14/97, 7/12/00, 12/4/02 and 10/27/04).
 - c. Reserved.
 - d. Article 4 (As amended 6/3/09).
 - e. Article 5 (As amended 6/3/09).
 - f. Reserved.
 - g. Article 7 (As amended 6/3/09)
 - h. Reserved.
 - i. Article 9, limited to:
 - i. §4-9-320 (As amended 6/3/09)
 - ii. §4-9-340 (As amended 6/3/09)

B. Notwithstanding the approval as elements of the SIP of those provisions of the Code identified in paragraph A of this section, those provisions, save §3-1-084 which shall be expressly

exempted from the limitation of this paragraph, shall operate as elements of the SIP only insofar as they pertain to:

1. "construction," as defined in Nov. '93 Code §1-3-140.28; or
 2. "modification," as defined in Nov. '93 Code §1-3-140.85; and
- C. Notwithstanding the approval as elements of the SIP of those provisions of the Code identified in paragraph A of this section, neither those provisions nor any permit conditions imposed pursuant to those provisions shall:
1. Operate as elements of the SIP insofar as they pertain to other than "conventional pollutants," as defined in §1-3-140.33;
 2. Operate as elements of the SIP insofar as they pertain only to a requirement arising under, or pertain to a source subject to regulation exclusively by virtue of a requirement arising under:
 - a. §111 of the Clean Air Act; or
 - b. Title IV of the 1990 amendments to the Clean Air Act; or
 - c. Title VI of the 1990 amendments to the Clean Air Act; or
 - d. Any section of this Code that is not a part of the SIP;
 3. Operate as an element of the SIP, at least insofar as they impose a "fee";
 4. Operate as an element of the SIP, at least insofar as they require a "certification";
 5. Operate as an element of the SIP, at least insofar as they impose obligations pertaining to "renewals";
 6. Operate as an element of the SIP, at least insofar as they impose requirements regarding "excess emissions"; or
 7. Operate as an element of the SIP, at least insofar as they impose requirements regarding "compliance plans."
- D. As a renumbering and reconciliation of previously approved SIP provisions as elements of this Code, the Board of Supervisors additionally designates the following list of sections within this Code, to be presented to the Governor of Arizona for transmittal to the Administrator of the EPA with a request that they be included as elements in the Arizona SIP without operational limitation:
1. §§1-1-010.C (2/22/95) and 1-1-010.D (2/22/95) *Declaration of Policy*
 2. Chapter 2, Article 8 (As amended 1/7/09) *Visibility Limiting Standard*
 3. Chapter 3, Article 8 (2/22/95) *Open Burning*
 4. [Reserved]
 5. [Reserved]
 6. [Reserved]
 7. [Reserved]
 8. [Reserved]
 9. [Reserved]
 10. [Reserved]
 11. [Reserved]
 12. §5-18-740 (2/22/95) *Storage of Organic Compounds - Organic Compound Emissions*
 13. §5-19-800 (2/22/95) *Loading of Volatile Organic Compounds - Organic Compound Emissions*
 14. §5-21-920 (2/22/95) *Fossil Fuel Fired Industrial and Commercial Equipment Standard Applicability*
 15. §5-21-930 (2/22/95 and 7/12/00) *Fossil Fuel Fired Industrial and Commercial Equipment Particulate Emission Standard*
 16. §5-22-950 (2/22/95) *Fossil Fuel Fired Steam Generator Standard Applicability*
 17. §5-22-960 (2/22/95) *Fossil Fuel Fired Steam Generator Sulfur Dioxide Emission Limitation*

18. §5-24-1030.F (2/22/95) *Generally Applicable Federally Enforceable Minimum Standard of Performance - Organic Compound Emissions*
19. §5-24-1030.I (2/22/95) *Generally Applicable Federally Enforceable Minimum Standard of Performance - Carbon Monoxide*
20. §5-24-1032 (2/22/95) *Federally Enforceable Minimum Standard of Performance - Process Particulate Emissions*
21. §5-24-1040 (2/22/95) *Carbon Monoxide Emissions - Industrial Processes*
22. §5-24-1045 (2/22/95) *Sulfite Pulp Mills - Sulfur Compound Emissions*
23. §5-24-1050 (2/22/95, as amended June 20, 1996) *Reduced Sulfur Emissions - Default Limitation*
24. §5-24-1055 (2/22/95) *Pumps and Compressors - Organic Compound Emissions*

ARTICLE 1. ADOPTED DOCUMENTS

WEST PINAL PM10 MODERATE NONATTAINMENT AREA FUGITIVE DUST

4-1-010. ~~Adopted document(s)~~ General Applicability

~~A.A.C. , Title 18, Chapter 2, Article 6 is hereby adopted by reference and made a part of this Code.~~

1. The purpose of this Article is to control fugitive dust from open areas /vacant lots, unpaved roads, unpaved lots and paved public roadways by requiring measures to prevent, reduce or mitigate fugitive dust emissions.
2. Effective Date
The rules in this Article will become effective on January 1, 2016.
3. Geographic Scope
The rules in this Article shall be effective throughout the West Pinal County PM₁₀ Moderate Nonattainment area as defined in 40 CFR Part 81.303.

4-1-015. Exemptions

1. In the case of legitimate vehicle test and development facilities and operations conducted by or for an equipment manufacturer, where dust is required to test and validate the design integrity, product quality and/or commercial acceptance, those specific activities shall be exempt from the applicable standards and requirements in this Article.
2. The standards and requirements of this Article shall not apply to emergency response 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. For purposes of this subsection, an emergency response must address a situation arising from a sudden and unforeseeable event beyond the control of the owner and/or operator, including acts of God. Activities by an owner and/or operator to address a disturbance resulting from improperly designed equipment, lack of preventative maintenance, careless or improper operation or operator error shall not qualify as an emergency response.
3. The standards and requirements of this Article shall not apply to normal farm cultural practices according to A.R.S. §49-457 and A.R.S. §49-504.4 which are subject to Arizona Department of Environmental Quality (ADEQ) rules R18-2-610, R18-2-610.01, R18-2-611 and R18-2-611.01.

4. The standards and requirements of this Article shall not apply to dust generating operations subject to the standards and/or requirements described in Chapter 4, Article 3.
5. The standards and requirements of this Article shall not apply to the establishment of 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. 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.

4-1-020. Definitions

For the purpose of this Article, the following definitions shall apply:

1. ADT (Average Daily Trips) – As used in this Article, means the average number of vehicles that cross a given point surface during a specific 24-hour period as determined by the most recent Institute of Transportation Engineers trip generation manual, tube counts, or observations.
2. CONTROL MEASURES- as used in this Article means, a preemptive or concurrent technique used to minimize the generation, emission, entrainment, suspension, and/or airborne transport of fugitive dust in order to comply with applicable standards.
3. DISTURBED SURFACE AREA – As used in this Article, means any portion of the earth’s surface that has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural condition.
4. DUST SUPPRESSANT – As used in this Article, means water, hygroscopic material, solution of water and chemical surfactant foam, non-toxic chemical stabilizer or any other dust palliative, which is not prohibited 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.
5. EMERGENCY - as used in this Article means a situation arising from sudden and reasonably unforeseeable events beyond the control of the owner and/or operator, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the associated activities 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.
6. FUGITIVE DUST – As used in this Article, means the regulated particulate matter, which is not collected by a capture system, which is entrained in the ambient air, and which is caused from human and/or natural activities, such as but not limited to, movement of soils, 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.
7. MOTOR VEHICLE - As used in this Article, means 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 and other conveyances which are connected to or propelled by the actual motorized portion of the vehicle.
8. OPEN AREAS/VACANT LOTS – As used in this Article, means any of the following described in Subsections a through c below. For the purposes of this rule, vacant portions of residential or commercial lots and contiguous parcels that are immediately adjacent to and owned and/or operated by the same individual or entity are considered one open area.
- a. An unsubdivided or undeveloped land whether or not it is adjoining a developed or a partially developed residential, industrial, institutional, governmental, or commercial area.
 - b. A subdivided residential, industrial, institutional, governmental, or commercial lot that contains no approved or permitted buildings or structures of a temporary or permanent nature.
 - c. A partially developed residential, industrial, institutional, governmental, or commercial lot and contiguous lots under common ownership.
9. OWNER AND/OR OPERATOR – As used in this Article, means any person including, but not limited to, the property owner, lessee or responsible official.
10. PAVE – As used in this Article, to apply and maintain asphalt, concrete, or other similar material to a roadway surface, such as asphaltic concrete, concrete pavement, chip seal, or rubberized asphalt.
11. PAVED PUBLIC ROADWAY – As used in this Article, means a publicly owned paved roadway, owned by federal, state, county, municipal, or other government or quasi-governmental agencies as evidenced by a formal acceptance by the state or a political subdivision of the state of either:
- a. An on-going maintenance obligation for the roadway; or
 - b. A title or easement for the roadway.
12. PINAL COUNTY DUST CONTROL FORECAST as used in this Article, means a forecast, which shall identify a low, moderate or high risk of dust generation for the next five consecutive days and shall be issued by noon on each day the forecast is generated. When developing these forecasts, the Department of Environmental Quality shall consider all of the following:
- a. Projected meteorological conditions, including:
 - i) Wind speed and direction,
 - ii) Stagnation,
 - iii) Recent precipitation, and
 - iv) Potential for precipitation;
 - b. Existing concentrations of air pollution at the time of the forecast; and
 - c. Historic air pollution concentrations that have been observed during meteorological conditions similar to those that are predicted to occur in the forecast.
13. STABILIZED – As used in this Article, means any previously disturbed surface area which, through the application of control measures, shows visual or other evidence of surface crusting and is resistant to wind-driven fugitive dust.
14. TRACKOUT – As used in this Article, any and all bulk materials that adhere to and agglomerate on the exterior surface of motor vehicles, haul trucks, and/or equipment (including tires) and that have fallen onto a paved roadway.

15. UNPAVED LOT – as used in this Article, is any area that is not paved and that is used for parking, maneuvering, material handling, or storing motor vehicles and equipment. An unpaved 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 rule, maneuvering shall not include military maneuvers or exercises conducted on federal facilities.
16. UNPAVED ROAD - as used in this Article, means any roads, equipment paths, or travel ways that are not paved. Unpaved roads are owned only by federal, state, county, municipal, or other governmental or quasi-governmental agencies. For the purposes of this Article, an unpaved road is not an agricultural road, horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles.

4-1-030. Standards

1. GENERAL REQUIREMENTS

- A. The owner and/or operator of open areas/vacant lots, unpaved lots, unpaved roads and paved public roadways 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.
- B. The owner and/or operator shall implement applicable control measures.
- C. Control measures shall be implemented to meet the visible emissions requirements, stabilization requirements and compliance determinations for each applicable category.
- D. Failure to implement control measures as required by this rule, as applicable and/or failure to maintain stabilization in order to prevent wind erosion as measured by the requirements of this rule shall be deemed a violation of this rule.

2. OPEN AREAS/VACANT LOTS

- A. **Visible Emissions and Stabilization Requirements:** The owner and/or operator of open areas/vacant lots shall not cause, suffer, allow, or permit fugitive dust emissions which result in opacity of the dust to exceed twenty percent (20%) as measured using an opacity method, as determined by the applicable test method in §4-9-340 or an equivalent test method approved in writing by the Control Officer and the EPA Administrator.
- B. Upon evidence of trespass in open areas/vacant lots, an owner and/or operator shall install and maintain one of the following:
 - i. No trespassing signs
 - ii. Physical barriers such as curbs, fences, gates, posts, shrubs, trees, or other effective control measures to effectively prevent access to the open areas/vacant lots.
- C. Owners and/or operators of open areas/vacant lots 1.0 acre (43,560 square feet) or larger and have a cumulative of 0.5 acre (21,780 square feet) or more disturbed surface area shall implement at least one control measure described below on the disturbed surface area in order to stabilize:

- i. Apply and maintain water or dust suppressants; or
 - ii. Establish vegetation; or
 - iii. Install and maintain pavement; or
 - iv. Apply and maintain gravel uniformly; or
 - v. Apply and maintain chemical/organic stabilizers/suppressants; or
 - vi. Apply and maintain an alternative control measure approved in writing by the Control Officer and the EPA Administrator.
- D. For open areas/vacant lots 1.0 acre (43,560 square feet) or larger and have a cumulative of 0.5 acre (21,780 square feet) or more disturbed surface area, within 30 calendar days following the initial discovery of the disturbed surface area on the open areas/vacant lots, the owner and/or operator shall sign up to receive the Pinal County dust control forecast. The owner and/or operator shall ensure the open areas/vacant lots is stabilized the day leading up to and the day that is forecast to be high risk for dust emissions, as noticed by the Pinal County dust control forecast.
- E. No person shall remove vegetation from any open areas/vacant lots by blading, disking, plowing under or any other means without implementing all of the following control measures to prevent or minimize fugitive dust.
- i. Apply a dust suppressant(s) to the total surface area subject to the disturbance immediately prior to or during the weed abatement.
 - ii. Prevent or eliminate material trackout onto paved surfaces and access points adjoining paved surfaces through one of the control measures in 4-1-030.5.A.i.
 - iii. Apply a dust suppressant(s), gravel, compaction or an alternative control measure immediately following weed abatement to the entire disturbed surface area such that the surface is stabilized.
- F. Compliance with the stabilization requirement in paragraphs C, D and E shall be determined by one of the following:
- i. Observation of a visible crust as determined by the drop ball test in Article 9 (§4-9-320.B.1); or
 - ii. A Threshold Friction Velocity (TFV), corrected for non-erodible elements, of 100 cm/second or higher as determined by the test method in Article 9 (§4-9-320.B.2); or
 - iii. Flat vegetation cover equal to at least 50 percent as determined by the test method in Article 9 (§4-9-320.B.3); or
 - iv. Standing vegetation cover equal to or greater than 30 percent as determined by the test method in Article 9 (§4-9-320.B.4); or
 - v. Standing vegetation cover equal to or greater than 10 percent as determined by the test method in Article 9 (§4-9-320.B.4) where threshold friction velocity, corrected for non-erodible elements, is equal to or greater than 43 cm/second.

3. UNPAVED LOTS

- A. The owner and/or operator of an unpaved lot greater than 5,000 square feet in size shall be subject to the requirements described in 4-1-030.3.A.i and shall comply with at least one of the control measures described in 4-1-030.3.A.ii:
- i. **Visible Emissions Requirements and Stabilization Requirements:** The owner and/or operator of an unpaved lot shall not cause or allow visible fugitive dust emissions to exceed 20% opacity as measured using an opacity method, as determined by the applicable test method in §4-9-340 or an equivalent test method approved in writing by the Control Officer and the EPA Administrator, and shall not allow silt loading equal to or greater than 0.33 oz/ft² as determined by the applicable test method in §4-9-320.A.1. However, if silt loading is equal to or greater than 0.33 oz/ft², then the owner and/or operator shall not allow the silt content to exceed 8% ;
 - ii. **CONTROL MEASURES:**
 - a. Pave; or
 - b. Apply dust suppressant in sufficient quantity and frequency to maintain a stabilized surface; or
 - c. Apply and maintain surface gravel uniformly such that the surface is stabilized; or
 - d. Apply and maintain an alternative control measure approved in writing by the Control Officer and the EPA Administrator.
- B. Control measure(s) in 4-1-030.3.A.ii shall be considered effectively implemented when the unpaved lot meets the requirements of 4-1-030.3.A.i.

4. UNPAVED ROADS

- A. The owner and/or operator of unpaved roads with average daily trips (ADT) greater than 150 (A traffic count shall measure motor vehicle traffic over a 48-hour period, which may consist of two non-consecutive 24-hour periods. Motor vehicle traffic shall be measured continuously during each 24-hour period.) shall be subject to the requirements described in 4-1-030.4.A.i and shall comply with one of the control measures described in 4-1-030.4.A.ii:
- i. **Visible Emissions Requirements and Stabilization Requirements:** The owner and/or operator of unpaved roads shall not cause or allow visible fugitive dust emissions to exceed 20% opacity as measured using an opacity method, as determined by the applicable test method in §4-9-340 or an equivalent test method approved in writing by the Control Officer and the EPA Administrator and shall not allow silt loading equal to or greater than 0.33 oz/ft² as determined by the applicable test method in §4-9-320.A.1. However, if silt loading is equal to or greater than 0.33 oz/ft², then the owner and/or operator shall not allow the silt content to exceed 6%;
 - ii. **CONTROL MEASURES:**
 - a. Pave; or

- b. Apply and maintain dust suppressants other than water; or
 - c. Uniformly apply and maintain surface gravel
- B. Control measure(s) in 4-1-030.4.A.ii shall be considered effectively implemented when:
- i. One of the control measures described in 4-1-030.4.A.ii is annually implemented on 15 miles per year of unpaved roads having ADT of 150 or more.
 - a. When the control measure is application and maintenance of dust suppressants other than water, the application and maintenance of the dust suppressants shall only be counted towards the 15 mile threshold when:
 - 1. Done on unpaved roads previously untreated, and
 - 2. Application and maintenance of dust suppressants on unpaved roads previously treated continues annually until the unpaved road is paved.
 - ii. For year 2019 and beyond, control measures applied on unpaved roads with less than 150 ADT can be used for compliance with 4-1-030.4.B.i through use of the following equivalency conversion.

<u>ADT Range</u>	<u>Mileage Equivalency (Miles of equivalent control / mileage of actual control)</u>
<u>0-14</u>	<u>0.000</u>
<u>14-62</u>	<u>0.121</u>
<u>62-103</u>	<u>0.514</u>
<u>103-146</u>	<u>0.531</u>
<u>146+</u>	<u>1.000</u>

Example equivalency conversion calculation:

In year one, City or County “A” paves 10 miles of unpaved roads with ADT of 100.

10 * 0.514 = 5.14 miles of 150 ADT equivalent unpaved roads.

5. PAVED PUBLIC ROADWAY

- A. Clean up of trackout, Erosion-Caused Deposition of Bulk Materials on paved public roadway: the owner and/or operator of the property from which the trackout or erosion-caused deposition came from shall upon discovery of mud/dirt that extends 50 feet or more from the nearest unpaved surface exit onto the paved public roadway shall:
 - i. Within 24 hours of discovery, remove the mud/dirt from paved public roadway with one of the following control measures. (If needed, restrict vehicles from

traveling over said mud/dirt until such time as the material can be removed from the travel lanes of the paved public roadway)

- a. Manually sweeping and picking up; or
 - b. Operating a rotary brush or broom accompanied or preceded by sufficient wetting to limit opacity to 20% or less; or
 - c. Operating a PM10 efficient street sweeper; or
 - d. Flushing with water, if curb and gutters are not present and where the use of water will not result as a source of trackout material or result in adverse impacts on storm water drainage systems or violate any National Pollutant Discharge Elimination System permit program.
- ii. During removal of mud/dirt, do so in a manner that does not cause another source of fugitive dust.
 - iii. In the event unsafe travel conditions would result from restricting traffic pursuant to section A.i and removal of such material isn't possible within 72 hours due to a weekend or holiday condition, the provisions of section A.i can be extended upon notification to and approval by the Control Officer.
- B. The owner and/or operator of any existing paved public roadways shall take the following actions prior to, during and after work on unpaved road shoulders:
- i. Apply a dust suppressant(s) to the total surface area subject to the disturbance in sufficient quantity and frequency to maintain a stabilized surface.
 - ii. Prevent trackout by using one of the control measures listed in §4-1-030.5.A.i.

4-1-040. 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 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.

4-1-045. Reporting Requirements

Each city, county, or state agency with primary responsibility for any existing paved public roadway and unpaved roads shall take the following actions:

- A. By January 30 of each year provide the district with a list of all unpaved roads under its jurisdiction, including data on length of, and ADT (if available) on, each unpaved road segment.
- B. By January 30 of each year, submit to the district a list of unpaved roads which were paved during the previous year including the total number of unpaved roads miles, ADTs (if available) and their respective segments.

4-1-050. Records Retention

Copies of the records required by §4-1-040 (Recordkeeping) and §4-1-045 (reporting) of this rule shall be retained for at least two years.

4-1-060. Violations

Failure by any person to comply with the applicable requirements of this Article shall constitute a violation subject to penalty as provided in these rules and A.R.S. Title 49, Chapter 3, Article 3, A.R.S. 49-471 et. seq.

Violation Exemptions:

- A. The opacity requirements of this rule shall not apply during:
 - i. Wind conditions that cause fugitive dust to exceed the opacity requirements if applicable control measures are implemented, applied and maintained, and all dust contributing disturbed surface area are stabilized.
 - ii. Emergency maintenance of flood control channels and water retention basins if at least 1 applicable control measure is applied, and maintained.