

## ARTICLE 3. CONSTRUCTION SITES - FUGITIVE DUST

### 4-3-160. General Provisions – West Pinal PM10 Nonattainment Area

#### A. Intent and Applicability

##### 1. Intent

The intent of this Article is to control dust emissions associated with construction activities. This Article focuses on fugitive dust emissions from process activity, site activity and a lack of adequate surface stabilization, all associated with construction.

##### 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 PM<sub>10</sub> Moderate Nonattainment area as defined in 40 CFR Part 81.303. These rules exclude the rest of Pinal County and the Pinal County portion of the Phoenix PM<sub>10</sub> Serious Nonattainment area, more specifically Township 1 North, Range 8 East, Gila & Salt River Base and Meridian ("T1N R8E") which is covered under Chapter 4, Article 7.

#### B. General Prohibition and Exemptions

1. Subject to the exemptions set forth in this Article, it constitutes a violation of this Article for any person to conduct any dust generating operation at any work site, without complying with this Article:

##### 2. Exemptions

The following are exempt from this Article, or portions of this Article:

- a. The application and permit requirements of this Article shall not apply to any facility operating under authority of a permit issued pursuant to ARS §§49-426 or 49-480, however, any dust generating operations are subject to the requirements of §4-3-180 sections (A) and (B), and facilities must keep records pursuant to §4-3-180(C)(2)(b).
- b. In the case of an emergency, action may be taken to stabilize a dust generating operation or disturbed surface area before submitting a dust generating operation application form. Upon stabilizing the emergency situation, a dust generating operation application form shall be submitted.
- c. 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 application, permit and applicable standards in section §4-3-180 under this Article.
- d. The application and permit requirements of this rule shall not apply to road maintenance activities, however, any dust generating operations are subject to the requirements of §4-3-180 sections(A) and (B), and records must be kept pursuant to §4-3-180(C)(2)(b).
- e. The application and permit requirements shall not apply with respect to dust generating operations associated with the emergency repair of utilities.
- f. 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 are exempt from the application, permit, and standards in section §4-3-180 of this Article. 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.
- g. The provisions of this rule shall not apply to rooftop operations for cutting, drilling, grinding, or coring roofing tile when such activity is occurring on a pitched roof.

## 4-3-170. Definitions

See Chapter 1, Article 3 (General Provisions and Definitions) of this code for definitions of terms that are used but not specifically defined in this Article.

1. "BULK MATERIAL" as used in this Article, means any material including but not limited to earth, rock, silt, sediment, sand, gravel, soil, fill, aggregate less than 2 inches in length or diameter, dirt, mud, demolition debris, trash, cinders, pumice, saw dust, and dry concrete, which are capable of producing fugitive dust at an industrial, institutional, commercial, governmental, construction and/or demolition site.
2. "BULK MATERIAL HANDLING, STORAGE AND/OR TRANSPORTING OPERATION" as used in this Article, means the processing of bulk materials, including but not limited to, the loading, unloading, conveying, transporting, piling, stacking, screening, grading, or moving of bulk materials.
3. CONSTRUCTION as used in this Article means building, maintaining or modifying a capital improvement resting upon, connected to or buried in the earth. Construction includes, but is not limited to, vertical construction, residential construction, installing underground utilities, installing above-ground utilities, and building physical infrastructure including roads, highways, railways, flood structures, drainage works and irrigation works. Notwithstanding any other exemption under these rules, weed abatement by discing or blading and conducted for the purpose of enabling Development Activity or maintaining a work site shall qualify as construction.
4. "CONTROL MEASURE" 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 at a work site in order to comply with applicable standards in section §4-3-180. Control measures include but are not limited to:

CONTROL MEASURES	Description
Watering (pre-wetting)	Application of water by means of trucks, hoses, and/or sprinklers prior to conducting any dust generating operation. This will increase the moisture content of the soils and increase stability of the soil.
Watering (operational control)	For disturbed surface areas and dust generating operations water is applied at sufficient intervals and quantity to increase the moisture content of the soils and increase stability of the soil. Also during stacking, loading and unloading operations on open storage piles, apply water as necessary.
Applying chemical stabilizers or dust suppressants	Apply chemical stabilizers/dust suppressants to disturbed surface areas and dust generating operations. Effective in areas which are not subject to daily disturbances.
Altering load-in/load-out procedures and watering	Confine load-in-load out procedures to downwind side of the material and mist material with water prior to loading. Empty loader slowly and keep bucket close to the truck while dumping.

Reducing vehicular speeds	Restrict maximum vehicular speeds to 15 miles per hour on unpaved easements, right of way, unpaved haul/access roads and parking lots.
Controlling Freeboard and spillage and covering haul vehicles	Load all trucks such that the freeboard is not less than three inches; and prevent spillage or loss of bulk material from holes or other openings in the conveyance; cover all haul trucks (empty or full) with an anchored tarp or other suitable anchored material.
Trackout Control	Install trackout control for work sites 5 acres or larger. For all work sites, when trackout extends a cumulative distance of 50 linear feet or more, be cleaned up as soon as practicable; but, in any case, by the end of the work day.
Limit, restrict or reroute motor vehicles access to work site	Erect signs or install physical barriers to limit access of work site.
Other measures as proposed by registrant	Specific measures that are adequate to address applicable standards in section §4-3-180 at the work site. Alternative measures must be approved by the Control Officer and the EPA Administrator.

5. "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. This definition excludes those permanently stabilized areas that have:
- a. Been restored to a natural condition, such that vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;
  - b. Been paved or otherwise covered by a permanent structure; or
  - c. Sustained a vegetative ground cover over at least 70 percent of the area for at least 30 days.
6. "DUST GENERATING OPERATION" as used in this Article, means any activity capable of generating fugitive dust, including but not limited to:
- a) Earthmoving activities
  - b) Land clean-up, leveling, back filling
  - c) Drilling
  - d) Construction
  - e) Demolition
  - f) Bulk material handling, storage and/or transporting operations
  - g) Operation of motorized machinery used in Construction
  - h) Establishing and/or using unpaved parking lots, haul/access roads within a work site
  - i) Installing initial landscapes using mechanized equipment

For the purpose of this rule, landscape maintenance and/or playing on a ball field shall not be considered a dust generating operation.

7. "DUST SUPPRESSANT" as used in this Article, means 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.

8. "EARTHMOVING ACTIVITY" as used in this Article, means any land clearing, land cutting and filling operations, blasting, trenching, road construction, grading, landscaping, landfill operations, weed abatement through discing, soil mulching, or any other activity associated with land development where the objective is to disturb the surface of the earth.
9. "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 dust generating operation 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.
10. "FREEBOARD" as used in this Article, means the vertical distance between the top edge of a cargo container and the highest point at which the bulk material contacts the sides, front, and back of the container.
11. "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 Article, 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.
12. "GRAVEL PAD" as used in this Article, means a layer of washed gravel, rock, or crushed rock at the intersection with the paved public roadway and a work site entrance to dislodge mud, dirt, and/or debris from the tire of the motor vehicles or haul trucks prior to leaving the work site.
13. "GRIZZLY" as used in this Article, means a device maintained at the point of intersection of a paved public roadway and a work site entrance to dislodge mud, dirt and/or debris from the tires of the motor vehicles or haul trucks prior to leaving the work site.
14. "HAUL TRUCK" as used in this Article, is any fully or partially open-bodied self-propelled vehicle 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 used for transporting bulk materials.
15. "MOTOR VEHICLE" as used in this Article, is 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.
16. "OWNER AND/OR OPERATOR" as used in this Article, is any person including, but not limited to, the property owner, lessee, developer, responsible official, dust generating operation permit applicant (who may also be the responsible party contracting to do the work), general or 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.
17. "PAVED PUBLIC ROADWAY" means a publicly owned paved roadway, owned by federal, state, county, municipal, or other governmental or quasi-governmental agencies as evidenced by a formal acceptance by the state or a political subdivision of the state of either:
  1. An on-going maintenance obligation for the roadway; or
  2. A title or easement for the roadway.
18. "PINAL COUNTY DUST CONTROL FORECAST" 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.

19. "ROAD CONSTRUCTION" as used in this Article, means the use of any equipment for the paving or new construction of a road surface, street or highway.
20. "ROAD MAINTENANCE" as used in this Article, means the use of any equipment for the repair and preservation of an old road surface, street or highway.
21. "STABILIZE" means any previously disturbed surface area which, through application of water or dust suppressants, shows visual or other evidence of surface crusting and is resistant to wind-driven fugitive dust. Stabilization shall be demonstrated by application of the drop ball test in Article 9 (§4-9-320.B.1).
22. "TRACKOUT" means visible material deposited onto any paved public roadway, as defined in this Article, by traffic leaving a work site.
23. "TRACKOUT CONTROL" as used in this Article, means a gravel pad, grizzly, wheel wash system, or a paved area, located at the point of intersection of an unpaved area and a paved public roadway that controls or prevents vehicular trackout.
24. "TRENCH" as used in this Article, means a long, narrow excavation dug in the earth (as for drainage).
25. "UNPAVED HAUL/ACCESS ROAD" as used in this Article, means any on-site unpaved road used by commercial, industrial, institutional, and/or governmental traffic.
26. "UNPAVED PARKING LOT" as used in this Article, means any area larger than 5,000 square feet that is not paved and that is used for parking, maneuvering, or storing motor vehicles on a work site.
27. "UNPAVED ROAD" as used in this Article, means any unsealed or unpaved roads, equipment path, or travel ways that are not covered by typical roadway materials. Public unpaved roads are any unpaved roadway owned by federal, state, county, municipal, or other governmental or quasi-governmental agencies. Private unpaved roads are all other unpaved roadways not defined as public. 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.
28. "WORK SITE" as used in this Article, means any property upon which dust generating operations occur during construction, and which covers an area of 0.1 acres or larger.
  - a. Trenches that are equal to or larger than the following dimensions are considered work sites and are subject to the requirement of this Article:
    - i. Trenches less than four feet in depth, that exceed a length of 726 feet;
    - ii. Trenches that are four feet or greater in depth, that exceed a length of 363 feet;
  - b. For calculations of disturbed surface areas for land clearing or earthmoving activities, 25 feet will be added to each dimension of all structures, driveways, concrete pads, and other construction projects being built on the site to allow for an equipment utilization zone. If this final figure equals or exceeds 0.1 acres, a dust generating operation application is required for the site.
  - c. If the registrant identifies situations in which the amount of surface area for trenches, land clearing or earthmoving activities should be calculated differently, a case-by-case determination may be made.

#### **4-3-180. DUST GENERATING OPERATIONS Standards, Application, Permit and Recordkeeping Requirements**

- A. Within the work site, an owner and/or operator:
  1. Shall not conduct or allow dust generating operations that result in opacity of the dust on the property 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 by the Control Officer and the EPA Administrator.
  2. Shall stabilize any disturbed surface area. The owner and/or operator shall conduct every other week inspections to ensure that the work site is stabilized. Ensuring the work site is stabilized shall include a site-wide inspection to ensure all applicable control measures [as described in §4-3-170.4] as specified in the permit, are implemented on dust generating operations and disturbed surface areas are stabilized.
- B. Where an owner and/or operator obtains a dust generating operation permit for a work site, or a combination of work sites, which are 5 acres or larger, the owner and/or operator shall as soon as practicable:
  1. Install suitable trackout control prior to the start of dust generating operations;
  2. For areas, or portions of areas, in which the dust generating operations have ceased or will cease for more than 30 days, erect signs or install physical barriers to limit trespass; and

3. Ensure the work site 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. Ensuring the work site is stabilized shall include a site-wide inspection to ensure either:
    - a. All applicable control measures [as described in §4-3-170.4] as specified in the permit, are implemented on dust generating operations, and disturbed surface areas are stabilized; or
    - b. All dust generating operations are ceased and disturbed surface areas are stabilized.
- C. Prior to engaging in any dust generating operations on a work site, the owner and/or operator shall file a dust generating operation application form with the Control Officer, pay the appropriate fee in Appendix C, and receive a signed permit from the Control Officer.
1. Dust generating operations application form:
    - a. The applicant shall present a dust generating operation application on a form approved by the Control Officer, and shall include all essential identification information as specified on that form. A separate application form is required for each site location that is not a contiguous geographic area to the location on the original application form, unless an annual block application is approved.
    - b. The owner and/or operator shall provide a valid cell phone number or email address on the dust generating operation application form. The owner and/or operator of work sites 5 acres or larger shall subscribe to the Pinal County Dust Control Forecast as part of the permit application process.
    - c. Each dust generating operation application shall also include a plot plan with linear dimensions in feet. The plot plan must be on 8-1/2 by 11 inch paper, and may be on one or more sheets. The plan shall identify the parcel (if a parcel number exists; if no parcel number exists, then Global Positioning System (GPS) coordinates of the center of the parcel shall be included), the street address, the direction north, the total area to be disturbed and indicate the sources of fugitive dust emissions on the plot plan.
    - d. Using the options on the application form each dust generating operation application shall contain an explanation of how the applicant will demonstrate compliance with this rule by selection of at least one control measure for each dust generating operation.
    - e. Annual Area Block Application:
      - i. Area block applications shall only be available for dust generating operations associated with:
        - a) Maintenance of existing underground or above-ground lines;
        - b) Effecting end-user connections, including but not limited to water connections, sewer connections, natural gas connections, electrical power connections, and communication connections;
        - c) Underground utility line extensions not exceeding 500' in length; and
        - d) Overhead utility line extensions; and
        - e) Expansion or extension of paved roads, unpaved roads, road shoulders, and/or alleys and public right of ways at non-contiguous sites.
      - ii. Area block applications shall only be available to:
        - a) Political subdivisions; and
        - b) Public Utility Corporations regulated by the Arizona Corporation Commission; and
        - c) Contractors or subcontractors for Political subdivisions or Public Utility Corporations
      - iii. The owner and/or operator operating at the work site may submit to the Control Officer one dust generating operation application for more than one dust generating operation at which construction will commence within 12 months of permit issuance.
      - iv. An annual block application must include all the requirements listed above in this subsection (1 a. through 1 d.) and a description of each site and type of dust generating operations to be conducted.
      - v. The owner and/or operator of an area block permit operating at a work site shall adhere to the requirements of all current permits issued to the work site and will be required to re-apply control measures as reasonable and necessary, or re-stabilize

any disturbed surface area that becomes disturbed as a result of the area block permit holder's work being done at the work site.

- vi. For any project not listed in the dust generating operation annual block application, the applicant must notify the Control Officer in writing at least three working days prior to commencing the dust generating operation. Such notification must include the site location, size, and type of dust generating operation, selected control measures, and start date.

2. Dust generating operation permit and recordkeeping:

a. The signed dust generating operation permit from the control officer will contain the requirements set under §4-3-180 (A) and (B), and conditions regarding the necessary control measures specific to the applicable project as proposed by the registrant. The signature of the owner and/or operator on the dust generating operation permit form shall constitute agreement to accept responsibility for meeting the conditions of the permit and for ensuring the applicable control measures are implemented throughout the work site, at all times that dust generating operations are being performed and during the duration of the project. The owner and/or operator shall maintain a copy of the signed permit form and provide it upon request of the Control Officer or his designee.

b. On a form approved by the Control Officer the owner and/or operator shall keep records of the every other week inspection reports and site-wide inspection reports from the day leading up to and the day that is forecast to be high risk for dust emissions, including any necessary corrective actions. A demonstration of compliance shall include inspections of the work site conducted pursuant to, and any actions taken to comply with, §4-3-180 sections (A)(2) and (B)(3).

c. Upon verbal or written request by the Control Officer, inspection records shall be provided as soon as practicable, but no later than 72 hours, excluding weekends. If the Control Officer is at the work site where the requested records are kept, the records shall be provided without delay. Records of inspections on a form approved by the Control Officer, shall be submitted within 30 days following the termination or expiration of the permit

d. Owners and/or Operators shall notify the Control Officer as soon as practicable, but no later than 30 days, of the completion of the project.

e. Permit Renewal: The first permit obtained for an affected project must cover a contiguous area (unless it is an "annual area block permit") and is valid for one year from the date of issue. If the project has not been completed at the end of the one-year period, the dust generating operation permit must be renewed. The owner and/or operator shall reapply for a dust generating operation permit prior to the expiration date of the original permit. Upon renewal, the new permit will be valid starting on the first calendar day after the completion of the initial one year period of the first permit and is valid for one year from that date. Upon renewal, the total acreage covered by the dust generating operation permit does not have to be contiguous, although all acreage covered by the renewed dust generating operation permit must have been included in the original dust generating operation permit.

f. At all sites that are five acres or larger, the owner and/or operator shall erect a project information sign at the main entrance that is visible to the public or at each end of the road construction project site. The sign shall be a minimum of 24 inches tall by 30 inches wide, have a white background, and have the words "DUST CONTROL" shown in black block lettering which is at least four inches high, and shall contain the following information in legible fashion:

- i. Project Name
- ii. Name and phone number of person(s) responsible for conducting project
- iii. Text stating: "Dust Complaints? Call Pinal County Air Quality at 520-866-6929"