TITLE 18. ENVIRONMENTAL QUALITY
CHAPTER 2. DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR POLLUTION CONTROL

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R18-2-613. ~~Yuma PM_{10} Nonattainment Area; Agricultural Best Management Practices~~ Definitions for R18-2-613.01

R18-2-613.01. Yuma PM_{10} Nonattainment Area; Agricultural Best Management Practices

ARTICLE 2. AMBIENT AIR QUALITY STANDARDS; AREA DESIGNATIONS; CLASSIFICATIONS

R18-2-210. Attainment, Nonattainment, and Unclassifiable Area Designations
40 CFR 81.303 as amended as of July 1, 201~~1~~3 (and no future amendments or editions) is incorporated by reference as an applicable requirement and on file with the Department of Environmental Quality. 40 CFR 81.303 is available from the U.S. Government Printing Office, Superintendent of Documents, bookstore.gpo.gov, Mail Stop: SSOP IDCC-SSOM, Washington, D.C. 20402-9328.

ARTICLE 6. EMISSIONS FROM EXISTING AND NEW NONPOINT SOURCES

R18-2-610. Definitions for R18-2-610.01, R18-2-610.02, and R18-2-610.03
The definitions in R18-2-101 and the following definitions apply to R18-2-610.01, R18-2-610.02, and R18-2-610.03:

1. "Access restriction" means reducing PM emissions by reducing the number of trips driven on agricultural aprons and access roads by restricting or eliminating public access to noncropland or commercial farm roads with signs or physical obstruction at locations that effectively control access to the area.
2. "Aggregate cover" means reducing PM emissions and wind erosion and stabilizing soil by applying and maintaining gravel, concrete, recycled road base, caliche, or other similar material ~~applied~~ to noncropland or commercial farm roads ~~to a depth sufficient to reduce dust generated from vehicle movement, wind or other erosive forces~~. The aggregate should be clean, hard and durable, and should be applied and maintained to a depth sufficient to reduce PM emissions.
3. "Area A" means the area delineated according to A.R.S. § 49-541(1).
4. "Best management practice" (BMP) means a technique verified by scientific research, that on a case-by-case basis is practical, economically feasible, and effective in reducing PM~~10~~ emissions from a regulated agricultural activity.
5. "Cessation of Night Tilling" means the discontinuation of ~~night~~ tillage ~~tilling~~ from sunset to sunrise on a day identified by the Maricopa or Pinal County Dust Control Forecast as being high risk of dust generation.
6. "Chemical irrigation" means reducing a minimum of one ground operation ~~reducing the number of passes~~ across a commercial farm by applying a fertilizer, pesticide, or other agricultural chemical to cropland through an irrigation system, which reduces soil disturbance and increases efficiency of application.
7. "Chips/ mulches" means reducing PM emissions and soil movement and preserving soil moisture by applying and maintaining nontoxic chemical or organic dust suppressants to a depth sufficient to reduce PM emissions. Materials shall meet all specifications required by federal, state, or local water agencies, and is not prohibited for use by any applicable regulations.

~~7~~8. "Combining tractor operations" means reducing soil compaction and ~~the number of passes~~ a minimum of one tillage or ground operation across a commercial farm by using a tractor, implement, harvester, or other farming support vehicle to perform two or more tillage, cultivation, planting, or harvesting operations at the same time. If Equipment modification is also chosen as a BMP, and uses the same practices as described in this BMP, this action is considered one BMP.

~~8~~9. "Commercial farm" means 10 or more contiguous acres of land used for agricultural purposes within the boundary of the Maricopa PM~~10~~ nonattainment area and Maricopa County portion of Area A, ~~or~~ a PM~~10~~ nonattainment area designated after June 1, 2009 as stated in A.R.S. § 49-457(P)(1)(f), or the Pinal County PM Nonattainment Area.

10. "Commercial farm road" means a road that is unpaved, owned by a commercial farmer, and is used exclusively to service a commercial farm.

~~9~~11. "Commercial farmer" means an individual, entity, or joint operation in general control of a commercial farm.

~~10~~12. "Committee" means the Governor's Agricultural Best Management Practices Committee as established by A.R.S. § 49-457.

13. "Conservation Tillage" means a tillage system that reduces a minimum of three tillage operations. This system reduces soil and water loss by planting into existing plant stubble on the field after harvest as well as managing the stubble so that it remains intact during the planting season.

~~11~~14. "Cover crop" means establishing cover crops that maintain a minimum of 60 percent ground cover. Native or volunteer vegetation that meets the minimum ground cover requirement is acceptable. Compliance shall be determined by the Line Transect Test Method, NRCS National Agronomy Manual, Subpart 503.51, Estimating Crop Residue Cover, amended through February 2011 (and no future editions). ~~reducing wind erosion and PM10 emissions by using plants or a green manure crop seasonally to protect soil surfaces between crops and control soil movement.~~

~~12~~15. "Critical area planting" means reducing PM10 emissions and wind erosion by planting trees, shrubs, vines, grasses, or other vegetative cover on noncropland in order to maintain at least 60 percent ~~adequate~~ ground cover. Compliance shall be determined by the Line Transect Test Method, NRCS National Agronomy Manual, Subpart 503.51, Estimating Crop Residue Cover, amended through February 2011 (and no future editions).

~~13~~16. "Cropland" means land on a commercial farm that:

a. Is within the time-frame of final harvest to plant emergence, but does not include tillage activities;
b. Has been tilled in a prior year and is suitable for crop production, but is currently fallow; or
c. Is a turn-row.

~~14~~17."Cross-wind ridges" means stabilizing soil and reducing PM~~10~~ emissions and wind erosion by creating soil ridges in a commercial farm by tillage or planting operations. Ridges should be at least four inches in height, and be aligned as perpendicular as possible to the prevailing wind direction. ~~Soil should be stable enough to sustain effective ridges.~~

~~15. "Cross-wind strip-cropping" means stabilizing soil and reducing PM10 emissions by growing strips of at least two crops: herbaceous cover or managing crop or herbaceous residue as a protective cover within the same field. Strips should be aligned as perpendicular as possible to the prevailing wind directions.~~

18. "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.

~~16~~19. "Equipment modification" means reducing PM~~10~~ emissions and soil erosion during tillage ~~and~~ or ~~harvest~~ ground operations by modifying and maintaining an existing piece of agricultural equipment, ~~purchasing new equipment, increasing equipment size~~, installing shielding equipment, modifying land planting and land leveling, matching the equipment to row spacing, or grafting to new varieties or technological improvements. If combining tractor operations is also chosen as a BMP, and uses the same practices as described in this BMP, this action is considered one BMP.

~~17~~20. "Fallow Field" means an area of land that is routinely cultivated, planted and harvested and is unplanted for one or more growing seasons or planting cycles, but is intended to be placed back in agricultural production.

21. "Field Capacity" means the amount of water remaining in the soil two days after having been saturated and after free drainage has ceased.

~~18~~22. "Forage Crop" means a product grown for consumption by any domestic animal.

~~19~~23. "Genetically Modified" (GMO) means a living organism whose genetic material has been altered, changing one or more of its characteristics.

~~20. "GMO: Genetically Modified Organism" means a plant that has been altered by a genetic exchange with another organism.~~

~~21~~24. "GPS: Global Position Satellite System" means using a satellite navigation system on farm equipment to calculate position in the field.

~~22~~25. "Green ~~C~~chop" means reducing soil compaction, soil disturbance and ~~the number of passes~~ a minimum of one ground operation across a commercial farm by harvesting ~~of~~ a Forage Crop without allowing it to dry in the field.

26. "Ground operation" means an agricultural operation that is not a tillage operation, which involves equipment passing across the field. A ground operation includes harvest activities. A pass through the field may be a subset of a ground operation.

27. "Harvest" means the time after planting up through harvest, including gathering mature crops from a commercial farm, as well as all actions taken immediately after crop removal, such as cooling, sorting, cleaning, and packing.

~~23~~28. "Integrated Pest Management" means reducing soil compaction and ~~the number of passes in~~ a minimum of one ground operation across a commercial farm for spraying by using a combination of techniques including organic, conventional, and biological farming practices to suppress pest problems.

~~24~~29. "Limited harvest activity ~~during a high-wind event~~" means performing no ~~harvest or soil preparation activity~~ ground operations on a day identified by the Maricopa or Pinal County Dust Control Forecast to be high risk for dust generation. ~~when the measured wind speed as measured by a hand held anemometer is more than 25 miles per hour at the commercial farm site.~~

~~25~~30. "Limited tillage activity ~~during a high-wind event~~" means performing no tillage operations ~~or soil preparation activity~~ on a day identified by the Maricopa or Pinal County Dust Control Forecast to be high risk for dust generation. ~~when the measured wind speed as measured by a hand held anemometer is more than 25 miles per hour at the commercial farm site.~~

~~26~~31. "Maricopa PM~~10~~ nonattainment area" means the Phoenix planning area as defined in 40 CFR 81.303, which is incorporated by reference in R18-2-210.

~~27. "Mulching" means reducing PM10 emissions and wind erosion and preserving soil moisture by applying a protective layer of plant residue or other material that is not produced onsite to a soil surface to reduce soil movement.~~

~~28~~32. "Multi-year crop" means reducing PM~~10~~ emissions from wind erosion ~~or~~ and a minimum of one tillage and ground operation across a commercial farm, by protecting the soil surface by growing a crop, pasture, or orchard that is grown, or will be grown, on a continuous basis for more than one year.

~~26~~33. "Noncropland" means any commercial farm land that:

a. Is no longer used for agricultural production;
b. Is no longer suitable for production of crops;
c. Is subject to a restrictive easement or contract that prohibits use for the production of crops; or
d. Includes a ~~private farm road,~~ ditch, ditch bank, equipment yard, storage yard, or well head.

34. "NRCS" means the Natural Resource Conservation Service.

~~30. "Night Tilling" means preparing the land for the raising of crops between the hours of 2:00 a.m. and 8:00 a.m.~~

~~31. "Organic farming practices" means using biological or non-chemical agricultural methods.~~

~~32. "Organic material application" means applying animal waste or biosolids to a soil surface.~~

35. "Organic material cover" means reducing PM emissions and wind erosion and preserving soil moisture by applying and maintaining cover material such as animal waste or plant residue, to a soil surface to reduce soil movement. Material shall be evenly applied and maintained to a depth sufficient to reduce PM emissions and coverage should be a minimum of 70 percent.

~~33~~36. "Permanent cover" means reducing PM~~10~~ emissions and wind erosion by maintaining a long-term perennial vegetative cover on cropland that is temporarily not producing a major crop. Perennial

species such as grasses and/or legumes shall be used to establish at least 60 percent cover. Compliance shall be determined by the Line Transect Test Method, NRCS National Agronomy Manual, Subpart 503.51, Estimating Crop Residue Cover, amended through February 2011 (and no future editions).

37. "Pinal County PM Nonattainment Area" means the West Pinal PM_{10} planning area and the West Central $PM_{2.5}$ planning area, as defined in 40 CFR 81.303, and incorporated by reference in R18-2-210.
38. "Plant stubble" means stubble on the soil surface, which insulates soil to reduce evaporation of moisture, and also protects the soil from wind and water erosion.

~~34~~39."Planting based on soil moisture" means reducing PM emissions and wind erosion by applying water or having enough moisture in the soil to germinate the seed prior to planting. Soil must have a minimum soil moisture content of 60% of field capacity at planting depth. Compliance shall be determined by NRCS Estimating Soil Moisture by Feel and Appearance Method, amended through April 1998 (and no future editions).

40. "PM" includes both particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers as measured by a reference method based on 40 CFR 50 Appendix L, or by an equivalent method designated according to 40 CFR 53; and particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by a reference method contained within 40 CFR 50 Appendix J or by an equivalent method designated in accordance with 40 CFR 53, as incorporated by reference in Appendix 2

~~35~~41. "Precision Farming" means reducing ~~the number of passes~~ the number of passes across a commercial farm by at least 12 inches per pass by using GPS to precisely guide farm equipment in the field.

~~36~~42. "Reduce vehicle speed" means reducing PM~~10~~ emissions and soil erosion from the operation of farm vehicles or farm equipment on noncropland or commercial farm roads at speeds not to exceed ~~20~~ 15. This can be achieved through installation of engine speed governors, signage, or speed control devices.

~~37~~43. "Reduced harvest activity" means reducing soil disturbance, soil and water loss, and the number of mechanical harvest passes by a minimum of one ground operation across a commercial farm, by means other than equipment modification or combining tractor operations.

~~38~~44. "Reduced tillage system" means reducing soil disturbance, soil and water loss, ~~the number of~~ by using a single piece of equipment that reduces a minimum of three tillage operations, by means other than equipment modification or combining tractor operations.

~~39~~45. "Regulated agricultural activity" means a regulated agricultural activity as defined in A.R.S. § 49-457(P)(1)(a) through (P)(1)(d)~~(5)~~.

~~40~~46. "Regulated area" means ~~a~~ the regulated area as defined in A.R.S. § 49-457(P)(6).

~~41~~47. "Residue management" means reducing PM~~10~~ emissions and wind erosion by ~~managing the amount and distribution~~ maintaining a minimum of 60 percent ground cover of crop and other plant residues on a soil surface between the time of harvest of one crop and the ~~emergence of a~~ commencement of tillage for a new crop. Compliance shall be determined by the Line Transect Test Method, NRCS National Agronomy Manual, Subpart 503.51, Estimating Crop Residue Cover, amended through February 2011 (and no future editions).

~~42~~48. "Sequential cropping" means reducing PM~~10~~ emissions and wind erosion by growing crops in a sequence or close rotation that limits the amount of time bare soil is exposed on a commercial farm to 30 days or less.

~~43~~49. "Shuttle System/Larger Carrier" means reducing ~~the~~ one out of every four ~~number of~~ trips ~~passes~~ across a commercial farm by using multiple or larger bins/trailers ~~per trip~~ to haul commodity from the field.

~~44~~50. "Significant Agricultural Earth Moving Activities" means either leveling activities conducted on a commercial farm that disturb the soil more than 4 inches below the surface, or the creation,

maintenance and relocation of: ditches, canals, ponds, irrigation lines, tailwater recovery systems (agricultural sumps) and other water conveyances, not to include activities performed on cropland for tillage, ground operations ~~crop preparation, cultivation~~ or harvest.

51. "Silt content test method" means the test method in Pinal County Air Quality Control District Section 4-9-320 "Test Methods for Stabilization For Unpaved Roads and Unpaved Parking Lots" adopted on June 3, 2009, approved into the Arizona State Implementation Plan on April 6, 2010 at 75 FR 17307 and codified at 40 CFR §52.120 (c)(145)(i)(A)(1)(i).

~~45~~52."Stabilization of soil prior to plant emergence" means reducing PM~~10~~ emissions by applying water to soil ~~in between planting and~~ prior to crop emergence in order to cause the soil to form a visible crust.

~~46~~53. "Surface roughening" means reducing PM~~10~~ emissions ~~and~~ or wind erosion by manipulating a soil surface by means such as rough discing or tillage in order to produce or maintain clods on the land surface. Compliance shall be determined by NRCS Practice Code 609, Surface Roughening, amended through November 2008 (and no future editions).

~~47. "Stagnant Air Conditions" means a meteorological regime where warm air aloft overlies cooler air near the surface and little if any vertical mixing occurs.~~

~~48~~54. "Synthetic particulate suppressant" means reducing PM~~10~~ emissions and wind erosion by providing a ~~surface barrier or binding soil particles together~~ stabilized soil surface on noncropland or commercial farm roads with a manufactured product such as lignosulfate, calcium chloride, magnesium chloride, an emulsion of a petroleum product, an enzyme product, or polyacrylamide that is used to control particulate matter.

~~49. "Tillage and harvest" means any mechanical practice that physically disturbs cropland or crops on a commercial farm.~~

55. "Tillage" means any mechanical practice that physically disturbs the soil, and includes preparation for planting, such as plowing, ripping, or discing.

~~50~~56. "Tillage based on soil moisture" means reducing PM~~10~~ emissions by irrigating fields to the depth of the proposed cut prior to soil disturbances or conducting tillage to coincide with precipitation. Soil must have a minimum soil moisture content of 40-60% of field capacity at planting depth. Compliance shall be determined by NRCS Estimating Soil Moisture by Feel and Appearance Method, amended through April 1998 (and no future editions).

~~51~~57. "Timing of a tillage operation" means reducing wind erosion and PM emissions by performing tillage operations that minimize the amount of time within 45 days. ~~the soil surface is susceptible to wind erosion resulting in PM10~~.

58. "Tillage operation" means an agricultural operation that mechanically manipulates the soil for the enhancement of crop production. Examples include discing or bedding. A pass through the field may be a subset of a tillage operation.

~~52~~59. "Track-out control system" means ~~reducing PM10 emissions~~ minimizing any and all material that adheres to and agglomerates on all vehicles and equipment from noncropland or commercial farm roads or and falls onto paved public roads or shoulders to paved public roads by using a device or system to remove mud or soil from a vehicle or equipment before the vehicle enters a paved public road. Devices such as a grizzly, a gravel pad or a wheel wash system can be used.

~~53~~60."Transgenic Crops" means reducing ~~the need~~ a minimum of one ~~for~~ tillage or ~~cultivation~~ ground operation~~s~~, the number of chemical spray applications, or soil disturbances by using plants that are genetically modified.

~~54~~61. "Transplanting" means reducing ~~the number of passes in~~ a minimum of one ground operation across a commercial farm and minimizing soil disturbance by utilizing plants already in a growth state as compared to seeding.

62. "VDT" (Vehicle trips for day) means trips per day made by one vehicle, in one direction.

~~55~~63."Watering" means reducing PM~~10~~ emissions and wind erosion by applying water to noncropland or commercial farm road bare soil surfaces during periods of high traffic until the surfaces are visibly

moist.

64. "Watering on a high risk day" means reducing PM emissions and wind erosion by applying water to commercial farm road bare soil surfaces until the surfaces are visibly moist, on a day forecast to be high risk for dust generation by the Maricopa or Pinal County Dust Control Forecast.

~~56~~65. "Wind barrier" means reducing PM~~10~~ emissions and wind erosion by constructing a fence or structure, or providing a woody vegetative barrier by planting a row of trees or shrubs, perpendicular or across the prevailing wind direction to reduce wind speed by changing the pattern of air flow over the land surface. For fences and structures, the wind barrier shall have a density of no less than 50% and the height of the wind barrier must be proportionate to the downwind protected area. The downwind protected area is considered ten times the height of the wind barrier. For vegetative barriers, compliance shall be determined by NRCS Conservation Practice Standard, Code 380, Windbreak/Shelterbelt Establishment, amended through August 21, 2009 (and no future editions).

R18-2-610.01. Agricultural PM_{10} General Permit for Crop Operations; Maricopa County PM_{10} Nonattainment Areas

A. A commercial farmer shall comply with this Section by January 1, 201~~2~~5. ~~Until the end of the transition period on March 31, 2013, a commercial farmer shall maintain a record demonstrating compliance with this Section. The record shall be provided to the Director within two business days of notice to the commercial farmer. The record shall contain:~~
   ~~1. The name of the commercial farmer;~~
   ~~2. The mailing address or physical address of the commercial farm; and~~
   ~~3. The best management practices selected for tillage and harvest, noncropland, and cropland.~~

B. A commercial farmer, who begins a regulated agricultural activity after January 1, 201~~2~~5, shall comply with this Section within ~~three months~~ 90 days of beginning the regulated agricultural activity.

C. A commercial farmer within the Maricopa County ~~a Serious~~ PM~~10~~ Nonattainment Area shall implement at least two best management practices from each category to reduce PM~~10~~ emissions.

~~D. A commercial farmer within a Moderate PM10 Nonattainment Area shall implement at least one best management practice from each category to reduce PM10 emissions.~~

~~E~~D. A commercial farmer shall implement from the following best management practices, as described in subsection (C) ~~or (D)~~, to reduce PM emissions during ~~harvest and~~ tillage, harvest or ground operation activities:
   1. Chemical irrigation,
   2. Combining tractor operations,
   3. Equipment modification,
   4. Green Chop,
   5. Integrated Pest Management,
   6. Limited harvest activity ~~during a high-wind event~~,
   7. Limited tillage activity ~~during a high-wind event~~,
   8. Multi-year crop,
   9. Cessation of Night Tilling,
   10. Planting based on soil moisture,
   11. Precision Farming,
   12. Reduced harvest activity,
   13. Reduced tillage system,
   14. Tillage based on soil moisture,
   15. Timing of a tillage operation,
   16. Transgenic Crops,
   17. Transplanting, ~~or~~
   18. Shuttle System/Larger Carrier, or
   19. Conservation Tillage.

~~F~~E. A commercial farmer shall implement from the following best management practices, as described in subsection (C) ~~or (D)~~, to reduce PM~~10~~ emissions from noncropland and commercial farm roads:

1. Access restriction,
2. Aggregate cover,
3. Wind barrier,
4. Critical area planting,
5. Organic material ~~application~~ cover,
6. Reduce vehicle speed,
7. Synthetic particulate suppressant,
8. Track-out control system, or
9. Watering.

~~G~~F. A commercial farmer shall implement from the following best management practices, as described in subsection (C) ~~or (D)~~, to reduce PM~~10~~ emissions from cropland:

1. Wind barrier,
2. Cover crop,
3. Cross-wind ridges,
4. ~~Cross-wind strip-cropping~~,
5. ~~Integrated Pest Management,~~
6~~4~~. ~~Organic material application~~ Chips/mulches,
7. ~~Mulching,~~
8~~5~~. Multi-year crop,
9~~6~~. Permanent cover,
10~~7~~. Stabilization of soil prior to plant emergence,
11. ~~Precision Farming,~~
12~~8~~. Residue management,
13~~9~~. Sequential cropping, or
14~~10~~. Surface roughening.

~~H~~G. A commercial farmer shall implement from the following best management practices, as described in subsection (C) ~~or (D)~~, to reduce PM emissions when conducting Significant Agricultural Earth Moving Activities as defined in R18-2-610:

1. Apply water prior to conducting Significant Agricultural Earth Moving Activities and/or time Significant Agricultural Earth Moving Activities to coincide with precipitation. Soil must have a minimum soil moisture content of 50% of field capacity. Compliance shall be determined by NRCS Estimating Soil Moisture by Feel and Appearance Method, amended through April 1998 (and no future editions);
2. Apply water during Significant Agricultural Earth Moving Activities. Soil must have a minimum soil moisture content of 30% of field capacity. Compliance shall be determined by NRCS Estimating Soil Moisture by Feel and Appearance Method, amended through April 1998 (and no future editions);
3. Limit activities ~~during high wind events~~ on a day identified by the Maricopa or Pinal County Dust Control Forecast to be high risk for dust generation; or
4. Conduct Significant Agricultural Earth Moving Activities in a manner to ~~minimize the number of passes~~ reduce a minimum of one ground operation across a commercial farm by using equipment that is the most efficient means of moving the soil.~~; or~~
5. ~~Conduct Significant Agricultural Earth Moving Activities as close to possible to planting or otherwise stabilize the soil, except for emergency maintenance purposes~~

~~I. Beginning March 31, 2013, or within 90 days after the start of a new regulated agricultural activity, whichever is later, the commercial farmer shall complete and submit a Best Management Practices Program General Permit Record Form to the Arizona Department of Agriculture. Thereafter, the commercial farmer shall also complete and submit a Best Management Practices Program General~~

~~Permit Record Form to the Arizona Department of Agriculture on March 31 of each calendar year. The Best Management Practice Program General Permit Record form shall include the following information:~~

~~1. At least the required number of best management practices as described in subsection (C) or (D) that the commercial farmer implemented during the previous calendar year;~~

~~2. At least the required number of best management practices as described in subsection (C) or (D) that the commercial farmer intends to implement during the current calendar year;~~

~~3. The name, business address, and phone number of the commercial farmer responsible for the preparation and implementation of the best management practices;~~

~~4. The signature of the commercial farmer and the date the form was signed.~~

I. Beginning January 1 2015, or within 90 days after the start of a new regulated agricultural activity, whichever is later, the commercial farmer shall complete and maintain a Best Management Practices Program General Permit Record Form demonstrating compliance with this Section. Thereafter, a new Best Management Practices Program General Permit Record Form shall be completed every year by March 31. The Form shall be provided to the Director within two business days of notice to the commercial farmer. The Best Management Practice Program General Permit Record Form shall include the following information:

1. The name of the commercial farmer, signature, and date signed;
2. The mailing address or physical address of the commercial farm; and
3. The best management practices selected for tillage, harvest, and ground operation activities, cropland, noncropland and commercial farm roads, and significant earth moving activities (if applicable).

~~J. Beginning in Calendar Year 2014, and no more than once every subsequent three calendar years, the Director shall provide the commercial farmer with a Best Management Practices Program Periodic Survey. The commercial farmer may complete and submit the survey to the Arizona Department of Agriculture. The Periodic Survey shall include the following information:~~

~~1. The type and acreage of each crop type planted during the calendar year that the survey is conducted,~~

~~2. The total miles of unpaved roads at the commercial farm, and~~

~~3. The total acreage of the unpaved equipment and traffic areas at the commercial farm.~~

~~K~~J. Records of any changes to the Best Management Practices identified in the most recently submitted Best Management Practices Program General Permit Record Form shall be kept by the commercial farmer onsite and made available for review within two business days of notice to the commercial farmer.

~~L~~K. A person may petition the Committee to consider different practices to control PM~~10~~ emissions not contained in ~~either of the categories of~~ subsections (D), (E), F), or (G) ~~(E), (F), (G), or (H)~~. The Committee may require on-farm demonstration trials to be conducted under the conditions established by the Committee. The proposed new practices shall not become effective unless approved by the Committee.

~~M~~L. A commercial farmer shall maintain a record demonstrating compliance with this Section for three years. Records shall include a copy of the complete Best Management Practice Program General Permit Record Form to confirm implementation of each best management practice.

~~N~~M. The Director shall not assess a fee to a commercial farmer for coverage under the agricultural PM10 general permit.

~~O~~N. A commercial farmer shall ensure that the implementation of all selected best management practices does not violate any other local, state, or federal law.

~~P~~O. The Director shall document noncompliance with this Section before issuing a compliance order.

~~Q~~P. A commercial farmer who is not in compliance with this Section is subject to the provisions in A.R.S. § 49-457(I), (J), and (K).

R18-2-610.02. Agricultural PM General Permit for Crop Operations; Moderate PM Nonattainment Areas, Designated After June 1, 2009

A. A commercial farmer shall comply with this Section after January 1, 2015.

B. A commercial farmer, who begins a regulated agricultural activity after January 1, 2015, shall comply with this Section within 90 days of beginning the regulated agricultural activity.

C. A commercial farmer within a PM Moderate Nonattainment Area, designated after June 1, 2009, shall implement at least one best management practice from each category to reduce PM emissions.

D. A commercial farmer shall implement from the following best management practices, as described in subsection (C), to reduce PM emissions during tillage, harvest and ground operation activities:
   1. Chemical irrigation,
   2. Combining tractor operations,
   3. Equipment modification,
   4. Green Chop,
   5. Integrated Pest Management,
   6. Limited harvest activity,
   7. Limited tillage activity,
   8. Multi-year crop,
   9. Cessation of Night Tilling,
   10. Planting based on soil moisture,
   11. Precision Farming,
   12. Reduced harvest activity,
   13. Reduced tillage system,
   14. Tillage based on soil moisture,
   15. Timing of a tillage operation,
   16. Transgenic Crops,
   17. Transplanting, or
   18. Shuttle System/Larger Carrier, or
   19. Conservation Tillage.

E. A commercial farmer shall implement from the following best management practices, as described in subsection (C), to reduce PM emissions from noncropland and commercial farm roads:
   1. Access restriction,
   2. Aggregate cover,
   3. Wind barrier,
   4. Critical area planting,
   5. Organic material cover,
   6. Reduce vehicle speed,
   7. Synthetic particulate suppressant,
   8. Track-out control system, or
   9. Watering.

F. A commercial farmer shall implement from the following best management practices, as described in subsection (C), to reduce PM emissions from cropland:
   1. Wind barrier,
   2. Cover crop,
   3. Cross-wind ridges,
   4. Chips/mulches,
   5. Multi-year crop,
   6. Permanent cover,
   7. Stabilization of soil prior to plant emergence,
   8. Residue management,
   9. Sequential cropping, or

10. Surface roughening.

G. A commercial farmer shall implement from the following best management practices, as described in subsection (B), when conducting Significant Agricultural Earth Moving Activities as defined in R18-2-610:
   1. Apply water prior to conducting Significant Agricultural Earth Moving Activities and/or time Significant Agricultural Earth Moving Activities to coincide with precipitation. Soil must have a minimum soil moisture content of 50% of field capacity. Compliance shall be determined by NRCS Estimating Soil Moisture by Feel and Appearance Method, amended through April 1998 (and no future editions);
   2. Apply water during Significant Agricultural Earth Moving Activities. Soil must have a minimum soil moisture content of 30% of field capacity. Compliance shall be determined by NRCS Estimating Soil Moisture by Feel and Appearance Method, amended through April 1998 (and no future editions);
   3. Limit activities on a day identified by the Maricopa or Pinal County Dust Control Forecast to be high risk for dust generation; or
   4. Conduct Significant Agricultural Earth Moving Activities in a manner to reduce a minimum of one ground operation across a commercial farm by using equipment that is the most efficient means of moving the soil.-

H. Beginning January 1 2015, or within 90 days after the start of a new regulated agricultural activity, whichever is later, the commercial farmer shall complete and maintain a Best Management Practices Program General Permit Record Form demonstrating compliance with this Section. Thereafter, a new Best Management Practices Program General Permit Record Form shall be completed every year by March 31. The Form shall be provided to the Director within two business days of notice to the commercial farmer. The Best Management Practice Program General Permit Record Form shall include the following information:
   1. The name of the commercial farmer, signature, and date signed;
   2. The mailing address or physical address of the commercial farm; and
   3. The best management practice selected for tillage, harvest and ground operation activities, cropland, noncropland and commercial farm roads, and significant earth moving activities (if applicable).

I. Records of any changes to the Best Management Practices shall be noted on the Best Management Practices Program General Permit Record Form and shall be kept by the commercial farmer onsite and made available for review within two business days of notice to the commercial farmer.

J. A person may petition the Committee to consider different practices to control PM emissions not contained subsections (D), (E), (F), or (G). The Committee may require on-farm demonstration trials to be conducted under the conditions established by the Committee. The proposed new practices shall not become effective unless approved by the Committee.

K. A commercial farmer shall maintain a record demonstrating compliance with this Section for three years. Records shall include a copy of the complete Best Management Practice Program General Permit Record Form to confirm implementation of each best management practice.

L. The Director shall not assess a fee to a commercial farmer for coverage under the agricultural PM general permit.

M. A commercial farmer shall ensure that the implementation of all selected best management practices does not violate any other local, state, or federal law.

N. The Director shall document noncompliance with this Section before issuing a compliance order.

O. A commercial farmer who is not in compliance with this Section is subject to the provisions in A.R.S. § 49-457(I), (J), and (K).

R18-2-610.03. Agricultural PM General Permit for Crop Operations; Pinal County PM Nonattainment Area

A. A commercial farmer shall comply with this Section by January 1, 2015.
B. A commercial farmer, who begins a regulated agricultural activity after January 1, 2015, shall comply with this Section within three months of beginning the regulated agricultural activity.
C. On the day before and during the day that is forecast to be high risk for dust generation by the Pinal County Dust Control Forecast, a commercial farmer shall ensure implementation of best management practices as described in subsections (1)(b), (2)(b), (3)(b), (4)(b), and (5)(b).
D. On all days, a commercial farmer shall implement at least one best management practice from each category to reduce PM emissions, as described below in subsections (1)(a), (2)(a), (3)(a), (4)(a), and (6), and at least two best management practices from subsection (5)(a). If a commercial farmer implements the Conservation tillage or Reduced tillage system best management practice for the tillage category, they do not have to implement a best management practice from the subsections (2)(a), (2)(b), (5)(a) and (5)(b).
   1. Tillage:
      a. A commercial farmer shall implement at least one of the following:
         i. Combining tractor operations,
         ii. Equipment modification,
         iii. Multi-year crop,
         iv. Cessation of night tilling,
         v. Planting based on soil moisture,
         vi. Precision farming,
         vii. Tillage based on soil moisture,
         viii. Timing of a tillage operation,
         ix. Transgenic crops,
         x. Transplanting,
         xi. Reduced tillage system, or
         xii. Conservation tillage.
      b. Unless choosing option (iv), on the day before and during the day that is forecast to be high risk for dust generation by the Pinal County Dust Control Forecast, a commercial farmer shall ensure implementation of at least one of the following:
         i. Multi-year crop,
         ii. Planting based on soil moisture,
         iii. Tillage based on soil moisture,
         iv. Limited tillage activity,
         v. Reduced tillage system, or
         vi. Conservation tillage.
   2. Ground Operations and Harvest:
      a. A commercial farmer shall implement at least one of the following:
         i. Combining tractor operations,
         ii. Equipment modification,
         iii. Chemical irrigation,
         iv. Green chop,
         v. Integrated pest management,
         vi. Multi-year crop,
         vii. Precision farming,
         viii. Reduced harvest activity,
         ix. Transgenic crops, or
         x. Shuttle System/Larger Carrier.
      b. Unless choosing subsection (iv), on the day before and during the day that is forecast to be high risk for dust generation by the Pinal County Dust Control Forecast, a commercial farmer shall ensure implementation of at least one of the following:

i. Green chop,
ii. Integrated pest management,
iii. Multi-year crop, or
iv. Limited harvest activity.

3. Noncropland:
   a. A commercial farmer shall implement one of the following best management practices:
      i. Access restriction,
      ii. Aggregate cover,
      iii. Wind barrier,
      iv. Critical area planting,
      v. Organic material cover,
      vi. Reduce vehicle speed,
      vii. Synthetic particulate suppressant, or
      viii. Watering.
   b. Unless choosing subsection (vi), on the day before and during a day forecast to be high risk for dust generation by the Pinal County Dust Control Forecast, on a noncropland area that experiences more than 20 VDT from 2 axle vehicles, a commercial farmer shall ensure implementation of one of the following best management practices:
      i. Aggregate cover,
      ii. Wind barrier,
      iii. Critical area planting,
      iv. Organic material cover,
      v. Synthetic particulate suppressant, or
      vi. Watering on a high risk day.
4. Commercial farm roads:
   a. A commercial farmer shall implement one of the following best management practices:
      i. Access restriction,
      ii. Reduce vehicle speed,
      iii. Track-out control system,
      iv. Aggregate cover,
      v. Synthetic particulate suppressant,
      vi. Watering, or,
      vii. Organic material cover.
   b. Unless choosing subsection (vi), on the day before and during a day forecast to be high risk for dust generation by the Pinal County Dust Control Forecast, on a road that experiences more than 20 VDT from 2 axle vehicles, a commercial farmer shall ensure implementation of one of the following best management practices:
      i. Aggregate cover,
      ii. Synthetic particulate suppressant,
      iii. Wind barrier,
      iv. Organic material cover,
      v. Roads are stabilized as determined by the silt content test method,
      vi. Watering on a high risk day.
5. Cropland:
   a. A commercial farmer shall implement at least two of the following best management practices, one from subsection (i) through (vii), and one from subsection (viii) through (xi), to reduce PM emissions from cropland:
      i. Wind barrier,

ii. Cover crop,
iii. Cross-wind ridges,
iv. Chips/mulches,
v. Sequential cropping
vi. Residue management,
vii. Surface roughening,
viii. Multi-year crop,
ix. Permanent cover, or
x. Stabilization of soil prior to plant emergence.

b. On the day before and during the day that is forecast to be high risk for dust generation by the Pinal County Dust Control Forecast, a commercial farmer shall ensure implementation of at least one of the following:
i. Wind barrier,
ii. Cover crop,
iii. Cross-wind ridges,
iv. Chips/mulches,
v. Surface roughening,
vi. Multi-year crop,
vii. Permanent cover,
viii. Stabilization of soil prior to plant emergence, or
ix. Residue management.

6. A commercial farmer shall implement at least one of the following best management practices, when conducting Significant Agricultural Earth Moving Activities as defined in R18-2-610:
a. Apply water prior to conducting Significant Agricultural Earth Moving Activities and/or time Significant Agricultural Earth Moving Activities to coincide with precipitation. Soil must have a minimum soil moisture content of 50% of field capacity. Compliance shall be determined by NRCS Estimating Soil Moisture by Feel and Appearance Method, amended through April 1998 (and no future editions);
b. Apply water during Significant Agricultural Earth Moving Activities. Soil must have a minimum soil moisture content of 30% of field capacity. Compliance shall be determined by NRCS Estimating Soil Moisture by Feel and Appearance Method, amended through April 1998 (and no future editions);
c. Limit activities on a day identified by the Maricopa or Pinal County Dust Control Forecast to be high risk for dust generation; or
d. Conduct Significant Agricultural Earth Moving Activities in a manner to reduce a minimum of one ground operation across a commercial farm by using equipment that is the most efficient means of moving the soil.-

F. Beginning January 1 2015, or within 90 days after the start of a new regulated agricultural activity, whichever is later, the commercial farmer shall complete a Best Management Practices Program General Permit Record Form demonstrating compliance with this rule. Thereafter, a new Best Management Practices Program General Permit Record Form shall be completed every year by March 31. The Form shall be provided to the Director within two business days of notice to the commercial farmer. The Best Management Practice Program General Permit Record Form shall include the following information:
1. The name of the commercial farmer, signature, and date signed;
2. The mailing address or physical address of the commercial farm; and
3. The best management practices selected for tillage, ground operations and harvest, cropland, noncropland, commercial farm roads, and significant earth moving activities (if applicable); and
4. Any additional best management practices selected for high risk days as predicted by the Pinal County Dust Control Forecast.

G. Beginning in Calendar Year 2017, and no more than once every subsequent three calendar years, the Director, in conjunction with the Arizona Department of Agriculture, shall provide the commercial farmer with a Best Management Practices Program 3-year Expanded Report. The commercial farmer shall complete and submit the Report to the Arizona Department of Agriculture within 90 days of receipt. The 3-year Expanded Report shall include the following information:
   1. The name, business address, and phone number of the commercial farmer responsible for the preparation and implementation of the best management practices;
   2. The signature of the commercial farmer and the date the form was signed;
   3. The acreage of each crop type planted during the calendar year that the survey is conducted;
   4. The total miles of commercial farm roads at the commercial farm;
   5. The total acreage of the noncropland at the commercial farm;
   6. The best management practices selected for tillage, ground operations and harvest, cropland, noncropland, commercial farm roads, and significant earth moving activities (if applicable); and
   7. Any additional best management practices selected for high risk days as predicted by the Pinal County Dust Control Forecast.

I. Records of any changes to the Best Management Practices shall be noted on the Best Management Practices Program General Permit Record Form and shall be kept by the commercial farmer onsite and made available for review within two business days of notice to the commercial farmer.

J. A person may petition the Committee to consider different practices to control PM emissions not contained subsections (E)(1) through (E)(6). The Committee may require on-farm demonstration trials to be conducted under the conditions established by the Committee. The proposed new practices shall not become effective unless approved by the Committee.

K. A commercial farmer shall maintain a record demonstrating compliance with this Section for three years. Records shall include a copy of the complete Best Management Practice Program General Permit Record Form to confirm implementation of each best management practice.

L. The Director shall not assess a fee to a commercial farmer for coverage under the agricultural PM general permit.

M. A commercial farmer shall ensure that the implementation of all selected best management practices does not violate any other local, state, or federal law.

N. The Director shall document noncompliance with this Section before issuing a compliance order.

O. A commercial farmer who is not in compliance with this Section is subject to the provisions in A.R.S. § 49-457(I), (J), and (K).

R18-2-611. Definitions for R18-2-611.01

The definitions in R18-2-101 and the following definitions apply to R18-2-611.01~~:~~, R18-2-611.02, and R18-611.03:

1. The following definitions apply to a commercial dairy operation, a commercial beef feedlot, a commercial poultry facility, and commercial swine facility:
   a. "Animal waste handling and transporting" means the processes by which any animal excretions and mixtures containing animal excretions are collected and transported.
   d. "Arenas, corrals and pens" means areas where animals are confined for the purposes of, but not limited to, feeding, displaying, safety, racing, exercising, or husbandry.
   c. "Commercial animal operation" means a commercial dairy operation, a commercial beef feedlot, a commercial poultry facility, and a commercial swine facility, as defined in this Section.
   d. "Commercial animal operator" means an individual, entity, or joint operation in general control of a commercial animal operation.
   e "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."

f. "Maricopa PM nonattainment area" means the Phoenix planning area as defined in 40 CFR 81.303, which is incorporated by reference in R18-2-210.
g. "Paved Public Road" means any paved roadways that are open to public travel and maintained by a City, County, or the State.
h. "Pinal County PM Nonattainment Area" means the West Pinal PM_{10} planning area and the West Central $PM_{2.5}$ planning area, as defined in 40 CFR 81.303, and incorporated by reference in R18-2-210.
i. "PM" includes both particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers as measured by a reference method based on 40 CFR 50 Appendix L, or by an equivalent method designated according to 40 CFR 53; and particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by a reference method contained within 40 CFR 50 Appendix J or by an equivalent method designated in accordance with 40 CFR 53, as incorporated by reference in Appendix 2.
j. "Regulated agricultural activity" means a regulated agricultural activity as defined in A.R.S. § 49-457(P)(5).
k. "Regulated area" means the regulated area as defined in A.R.S. § 49-457(P)(6).
l. "Track-out control system" means minimizing any and all material that adheres to and agglomerates on all vehicles and equipment from unpaved access connections and falls onto paved public roads or shoulders to paved public roads by using a device or system to remove mud or soil from a vehicle or equipment before the vehicle enters a paved public road. Devices such as a grizzly, a gravel pad or a wheel wash system can be used.
m. "Unpaved access connections" means any unpaved road connection which connects to a paved public road.
n. "Unpaved roads or feed lanes" means roads providing access to and from the feed preparation areas and feed lane areas at an animal operation. These access roads are typically used to distribute feed from feed trucks to animals.
o. "VDT" (Vehicle trips for day) means trips per day made by one vehicle, in one direction.

~~1~~2. The following definitions apply to a commercial dairy operation:
a. "Aggregate cover" means reducing PM emissions, wind erosion and stabilizing soil by applying and maintaining gravel, concrete, recycled road base, caliche, or other similar material ~~applied~~ to unpaved roads or feed lanes ~~to a depth sufficient to reduce dust generated from vehicle movement, wind or other erosive forces~~. The aggregate should be clean, hard and durable, and should be applied and maintained to a minimum of three inches deep.
b. "Apply a fibrous layer" means reducing PM~~10~~ emissions and soil movement, and preserving soil moisture by spreading shredded or deconstructed plant materials to cover loose soil in high animal traffic areas. Material shall be consistently applied to a minimum depth of two inches above the soil surface and coverage should be a minimum of 70 percent.
c. "Bunkers" means below ground level storage systems for storing large amount of silage, which is covered with a plastic tarp.
d. "Calves" means young dairy stock under two months of age.
e. "Cement cattle walkways to milk barn" means reducing PM~~10~~ emissions by fencing pathways from the corrals to the milking barn, ~~which are~~ restricting dairy cattle to surfaces with concrete floors.
~~f. "Commercial animal operator" means an individual, entity, or joint operation in general control of an animal operation.~~
~~g~~f. "Commercial dairy operation" means a dairy operation with more than 150 dairy cattle within the boundary of the Maricopa PM~~10~~ nonattainment area and Maricopa County portion of Area A, ~~or~~ a PM~~10~~ nonattainment area designated after June 1, 2009 as stated in A.R.S. § 49-457(P)(1)(f), or the Pinal County PM Nonattainment Area.

~~h~~g. "Cover manure hauling trucks" means reducing PM~~10~~ emissions by completely covering the top of the loaded area.
~~i~~h. "Covers for silage" means reducing PM~~10~~ emissions and wind erosion by using large plastic tarps to completely cover silage.
~~j~~i. "Do not run cattle" means reducing PM~~10~~ emissions by walking dairy cattle to the milking barn.
~~k~~j. "Feed higher moisture feed to dairy cattle" means reducing PM~~10~~ emissions by feeding dairy cattle one or ~~a~~ any combination of the following:
i. Add water to ration mix to achieve a 20% minimum moisture level,
ii. Add molasses or tallow to ration mix at a minimum of 1%,
iii. Add silage, or
iv. Add ~~G~~green ~~C~~chop.
~~l~~k. "Feed green chop" means feeding high moisture feed that contains at least 30% moisture directly to dairy cattle.
~~m~~l. "Groom manure surface" means reducing PM~~10~~ emissions and wind erosion by:
i. Flushing or vacuuming lanes daily,
ii. Scraping and harrowing pens on a weekly basis, and
iii. Removing manure every four months with equipment that leaves an even corral surface of compacted manure on top of the soil.
~~n~~m. "Hutches" means raised, roofed enclosures that protect the calves from the elements.
~~o~~n. "Pile manure between cleanings" means reducing PM~~10~~ emissions by collecting loose surface materials within the confines of the surface area of the occupied feed pen every two weeks. ~~to contain the loose manure materials.~~
~~p~~o. "Provide cooling in corral" means reducing PM~~10~~ emissions by using cooling systems ~~evaporative coolers~~ under the corral shades to reduce the ambient air temperature, thereby increasing stocking density in the cool areas of the corrals.
~~q~~p. "Provide shade in corral" means reducing PM~~10~~ emissions by increasing stocking density and reducing animal movement by using a permanent structure, which provides at least 16 square feet per animal of shaded pen surface.
~~r~~q. "Push equipment" means manure harvesting equipment pushed in front of a tractor.
~~s. "Regulated agricultural activity" means a regulated agricultural activity as defined in A.R.S. § 49-457(P)(5).~~
~~t. "Regulated area" means a regulated area as defined in A.R.S. § 49-457(P)(6).~~
~~u~~r. "Silage" means fermented, high-moisture fodder that can be fed to ruminants, such as cattle and sheep; usually made from grass crops including corn, sorghum or other cereals, by using the entire green plant.
~~v~~s. "Store and maintain feed stock" means reducing PM~~10~~ emissions and wind erosion by storing feed stock in a covered area where the commodity is surrounded on at least three sides by a structure. ~~so that the feed stock is adequately contained~~.
~~w~~t. "Synthetic particulate suppressant" means reducing PM~~10~~ emissions and wind erosion by providing a ~~surface barrier or binding soil particles together~~ stabilized soil surface on a commercial dairy operation with a manufactured product such as lignosulfate, calcium chloride, magnesium chloride, an emulsion of a petroleum product, an enzyme product, or polyacrylamide that is used to control particulate matter.
~~x~~u. "Use drag equipment to maintain pens" means reducing PM~~10~~ emissions by using manure ~~harvesting~~ equipment pulled behind a tractor instead of using push equipment, which avoids dust accumulation in floor depressions.
~~y~~v. "Use free stall housing" means reducing PM~~10~~ emissions by enclosing one cow per stall, which are outfitted with concrete floors.
~~z~~w. "Water misting systems" means reducing PM~~10~~ emissions from dry manure by using systems that project a cloud of very small water particles onto the manure surface, keeping the surface

visibly moist.

~~aa~~x. "Wind barrier" means reducing PM10 emissions and wind erosion by constructing a fence or structure, or providing a woody vegetative barrier by planting a row of trees or shrubs, perpendicular or across the prevailing wind direction to reduce wind speed by changing the pattern of air flow over the land surface. For fences and structures, the wind barrier shall have a density of no less than 50% and the height of the wind barrier must be proportionate to the downwind protected area. The downwind protected area is considered ten times the height of the wind barrier. For vegetative barriers, compliance shall be determined by NRCS Conservation Practice Standard, Code 380, Windbreak/Shelterbelt Establishment, amended through August 21, 2009 (and no future editions).

~~2~~3. The following definitions apply to a commercial beef cattle feedlot:

a. "Add moisture to pen surface" means reducing PM~~10~~ emissions and wind erosion by applying at least three to six gallons of water per head/per day in pens occupied by beef cattle.

b. "Add molasses or tallow to feed" means reducing PM~~10~~ emissions by adding molasses or tallow so that it equals ~~five~~ three percent of the total ration.

c. "Aggregate cover" means reducing PM emissions, wind erosion and stabilizing soil by applying and maintaining gravel, concrete, recycled road base, caliche, or other similar material ~~applied~~ to unpaved roads or feed lanes ~~to a depth sufficient to reduce dust generated from vehicle movement, wind or other erosive forces~~. The aggregate should be clean, hard and durable, and should be applied and maintained to a minimum of three inches deep.

d. "Apply a fibrous layer in working areas" means reducing PM~~10~~ emissions and soil movement, and preserving soil moisture by spreading shredded or deconstructed plant materials to cover loose soil in high animal traffic areas. Material shall be consistently applied to a minimum depth of two inches above the soil surface and coverage should be a minimum of 70 percent.

e. "Bulk materials" means reducing PM~~10~~ emissions by moving grain or other feedstuffs via non-vehicular means. ~~distributing or hauling grain, supplements, or mixed feeds via motorized vehicle~~

~~f. "Commercial animal operator" means an individual, entity, or joint operation in general control of an animal operation~~.

~~g~~f. "Commercial beef cattle feedlot" means a beef cattle feedlot with more than 500 beef cattle within the boundary of the Maricopa PM~~10~~ nonattainment area and Maricopa County portion of Area A, ~~or~~ a PM~~10~~ nonattainment area designated after June 1, 2009 as stated in A.R.S. § 49-457(P)(1)(f), or the Pinal County PM Nonattainment Area.

~~h~~g. "Concrete apron" means reducing PM~~10~~ emissions by using solidly formed concrete surface, at least 4 inches thick on top of the soil surface, inside the feed pen for 8 feet approaching the feed bunk or water trough.

~~i~~h. "Control cattle during movements" means reducing PM~~10~~ emissions by suppressing the animal's ability to run by driving them forward while intruding on their "flight zones" or restraining the animal's movement.

~~j~~i. "Cover manure hauling trucks" means reducing PM~~10~~ emissions by completely covering the top of the loaded area.

~~k~~j. "Feed higher moisture feed to beef cattle" means reducing PM~~10~~ emissions by feeding beef cattle feed that contains at least 30% moisture.

~~l~~k. "Frequent manure removal" means reducing PM~~10~~ emissions and wind erosion by harvesting loose manure on top of the pen surface at least once every six months.

~~m. "Higher moisture feeds" means reduce PM10 emissions by feeding beef cattle feed that contains at least 30% moisture.~~

~~n. "Increase manure moisture" means reducing PM10 emissions by increasing the fluids consumed and excreted by cattle.~~

~~o~~l. "Pile manure between cleanings" means reducing PM~~10~~ emissions by collecting loose manure

surface materials, by scraping or pushing, within the confines of the surface area of the occupied at least four times per year. ~~to contain the loose manure materials.~~

~~p~~m. "Provide shade in corral" means reducing PM~~10~~ emissions by increasing stocking density and reducing animal movement by using a permanent structure, which provides at least 16 square feet per animal of shaded pen surface.

~~q~~n. "Push equipment" means manure harvesting equipment pushed in front of a tractor.

~~r. "Regulated agricultural activity" means a regulated agricultural activity as defined in A.R.S. § 49-457(P)(5).~~

~~s. "Regulated area" means a regulated area as defined in A.R.S. § 49-457(P)(6).~~

~~t~~o. "Store and maintain feed stock" means reducing PM~~10~~ emissions and wind erosion by storing feed stock in a covered area where the commodity is surrounded on at least three sides by a structure. ~~so that the feed stock is adequately contained~~.

~~u~~p. "Synthetic particulate suppressant" means reducing PM~~10~~ emissions and wind erosion by providing a ~~surface barrier or binding soil particles together~~ stabilized soil surface on a commercial beef feedlot with a manufactured product such as lignosulfate, calcium chloride, magnesium chloride, an emulsion of a petroleum product, an enzyme product, or polyacrylamide that is used to control particulate matter.

~~v~~q. "Use drag equipment to maintain pens" means reducing PM~~10~~ emissions by using manure harvesting equipment pulled behind a tractor instead of using push equipment, which avoids dust accumulation in floor depressions.

~~w~~r. "Wind barrier" means reducing PM10 emissions and wind erosion by constructing a fence or structure, or providing a woody vegetative barrier by planting a row of trees or shrubs, perpendicular or across the prevailing wind direction to reduce wind speed by changing the pattern of air flow over the land surface. For fences and structures, the wind barrier shall have a density of no less than 50% and the height of the wind barrier must be proportionate to the downwind protected area. The downwind protected area is considered ten times the height of the wind barrier. For vegetative barriers, compliance shall be determined by NRCS Conservation Practice Standard, Code 380, Windbreak/Shelterbelt Establishment, amended through August 21, 2009 (and no future editions).

~~3~~4. The following definitions apply to a commercial poultry facility:

a. "Add moisture through ventilation systems" means reducing PM~~10~~ emissions by using a ventilation system that is designed to allow stock to maintain their normal body temperature without difficulty while ~~adding sufficient~~ maintaining a minimum of 20% moisture in ~~to~~ the air within the housing system to bind small particles to larger particles.

b. "Add oil and/or moisture to the feed" means reducing PM~~10~~ emissions by adding a minimum of 1% edible oil and/or moisture to feed rations to bind small particles to larger particles.

c. "Aggregate cover" means reducing PM emissions, wind erosion and stabilizing soil by applying and maintaining gravel, concrete, recycled road base, caliche, or other similar material ~~applied~~ to unpaved roads or feed lanes ~~to a depth sufficient to reduce dust generated from vehicle movement, wind or other erosive forces~~. The aggregate should be clean, hard and durable, and should be applied and maintained to a minimum of three inches deep.

d. "Clean aisles between cage rows" means reducing PM~~10~~ emissions by cleaning the aisles between cage rows at least twice every 14 days to prevent dried manure, spilled feed, and debris accumulation.

e. "Clean fans, louvers, and soffit inlets in a commercial poultry facility" means reducing PM~~10~~ emissions by cleaning fans, louvers, and soffit inlets when the facility is empty between depopulating and populating the facility.

f. "Clean floors and walls in a commercial poultry facility" means reducing PM~~10~~ emissions by cleaning floors and walls to prevent dried manure, spilled feed, and debris accumulation when the facility is empty between depopulating and populating the facility.

~~g. "Commercial animal operator" means an individual, entity, or joint operation in general control of an animal operation.~~

~~h~~g. "Commercial poultry facility" means a poultry operation with more than 25,000 egg laying hens within the boundary of the Maricopa PM~~10~~ nonattainment area and Maricopa County portion of Area A, ~~or~~ a PM~~10~~ nonattainment area designated after June 1, 2009 as stated in A.R.S. § 49-457(P)(1)(f), or the Pinal County PM Nonattainment Area.

~~i~~h. "Control vegetation on building exteriors" means reducing PM~~10~~ emissions by removing, cutting, or trimming vegetation that accumulates PM~~10~~ and restricts ventilation of the building, so as to leave approximately 3 feet between the vegetation and building.

~~j~~i. "Enclose transfer points" means reducing PM~~10~~ emissions by enclosing the points of transfer between the enclosed, weatherproof storage structure and the enclosed feed distribution system, which reduce air contact with the feed rations during feed conveyance.

~~k~~j. "House in fully enclosed ventilated buildings" means reducing PM~~10~~ emissions by utilizing fully enclosed buildings with sufficient ventilation.

~~l~~k. "Maintain moisture in manure solids" means reducing PM~~10~~ emissions by maintaining a moisture content of a minimum of 15% in the solids sufficient to bind small particles to larger particles.

~~m~~l. "Minimize drop distance" means reducing PM~~10~~ emissions by designing the feed distribution system ~~to minimize the~~ so that the distance the feed ration drops from the feed distribution system into feeders is approximately 1 foot or less, which reduces air contact with the feed rations during feed conveyance.

~~n~~m. "Poultry" means any domesticated bird including chickens, turkeys, ducks, geese, guineas, ratites and squabs.

~~o. "Regulated agricultural activity" means a regulated agricultural activity as defined in A.R.S. § 49-457(P)(5).~~

~~p. "Regulated area" means a regulated area as defined in A.R.S. § 49-457(P)(6).~~

~~q~~n. "Remove spilled feed" means reducing PM~~10~~ emissions by removing spilled feed from the housing facility at least once every 14 days.

~~r~~o. "Stack separated manure solids" means reducing PM~~10~~ emissions and wind erosion by reducing the amount of exposed surface area of manure solids.

~~s~~p. "Store feed" means reducing PM~~10~~ emissions by storing feed in a structure that is enclosed and weatherproof, which reduces air contact with the feed rations during feed storage.

~~t~~q. "Synthetic particulate suppressant" means reducing PM~~10~~ emissions and wind erosion by providing a ~~surface barrier or binding soil particles together~~ stabilized soil surface on a commercial poultry operation with a manufactured product such as lignosulfate, calcium chloride, magnesium chloride, an emulsion of a petroleum product, an enzyme product, or polyacrylamide that is used to control particulate matter.

~~u~~r. "Use enclosed feed distribution system" means reducing PM~~10~~ emissions by using an enclosed feed conveyance system that distributes feed rations throughout the housing facility, which reduces air contact with the feed rations during feed conveyance.

~~v~~s. "Use a flexible discharge spout" means reducing PM~~10~~ emissions and wind erosion at the time of bulk feed deliveries to the housing units by using a flexible discharge spout on the end of the feed truck transfer auger.

~~w~~t. "Use no bedding in the production facility" means reducing PM~~10~~ emissions by not using bedding such as wood shavings, sawdust, peanut hulls, straw, or other organic material.

~~4~~5. The following definitions apply to a commercial swine facility:

a. "Add oil and/or moisture to the feed" means reducing PM~~10~~ emissions by adding a minimum of 0.5% edible oil and/or moisture to feed rations to bind small particles to larger particles.

b. "Add moisture through ventilation systems" means reducing PM~~10~~ emissions by using a ventilation system that is designed to allow stock to maintain their normal body temperature

without difficulty while ~~adding sufficient~~ maintaining minimum of 15% moisture ~~to~~ in the air within the housing system to bind small particles to larger particles.

c. "Aggregate cover" means reducing PM emissions, wind erosion and stabilizing soil by applying and maintaining gravel, concrete, recycled road base, caliche, or other similar material ~~applied~~ to unpaved roads or feed lanes ~~to a depth sufficient to reduce dust generated from vehicle movement, wind or other erosive forces~~. The aggregate should be clean, hard and durable, and should be applied and maintained to a minimum of three inches deep.

d. "Clean aisles between pens and stalls" means reducing PM~~10~~ emissions by cleaning the aisles between pens and stalls at least twice every 14 days to prevent dried manure, spilled feed, and debris accumulation.

e. "Clean fans, louvers, and soffit inlets in a commercial swine facility" means reducing PM~~10~~ emissions by cleaning fans, louvers, and soffit inlets between transfer of animal groups, but in any case, at least every 6 months.

f. "Clean pens, floors and walls in a commercial swine facility" means reducing PM~~10~~ emissions by cleaning pens, floors, and walls between transfer of animal groups to prevent dried manure, spilled feed, and debris accumulation, but in any case, at least every 6 months.

~~g. "Commercial animal operator" means an individual, entity, or joint operation in general control of a animal operation.~~

~~h~~g. "Commercial swine facility" means a swine operation with more than 50 animal units for more than 30 consecutive days within the boundary of the Maricopa PM~~10~~ nonattainment area and Maricopa County portion of Area A, ~~or~~ a PM~~10~~ nonattainment area designated after June 1, 2009 as stated in A.R.S. § 49-457(P)(1)(f), or the Pinal County PM Nonattainment Area. One thousand pounds equals one animal unit.

~~i~~h. "Control vegetation on building exteriors" means reducing PM~~10~~ emissions by removing, cutting, or trimming vegetation that accumulates PM~~10~~ and restricts ventilation of the building, so as to leave approximately 3 feet between the vegetation and the building.

~~j~~i. "Enclose transfer points" means reducing PM~~10~~ emissions by enclosing the points of transfer between the enclosed, weatherproof storage structure and the enclosed feed distribution system, which reduces air contract with the feed rations during feed conveyance.

~~k~~j. "House in fully enclosed ventilated buildings" means reducing PM~~10~~ emissions by utilizing fully enclosed buildings with sufficient ventilation.

~~l~~k. "Lagoon" means a liquid manure storage and treatment pond.

~~m~~l. "Maintain moisture in manure solids" means reducing PM10 emissions by maintaining a minimum moisture content of 10 % in the solids sufficient to bind small particles to larger particles.

~~n~~m. "Minimize drop distance" means reducing PM~~10~~ emissions by designing the feed distribution system ~~to minimize the~~ so that the distance the feed ration drops from the feed distribution system into feeders is 3 feet or less, which reduces air contact with the feed rations during feed conveyance.

~~o. "Regulated agricultural activity" means a regulated agricultural activity as defined in A.R.S. § 49-457(P)(5).~~

~~p. "Regulated area" means a regulated area as defined in A.R.S. § 49-457(P)(6).~~

~~q~~n. "Remove spilled feed" means reducing PM~~10~~ emissions by removing spilled feed from the housing facility at least once every 14 days.

~~r~~o. "Slatted flooring" means reducing PM~~10~~ emissions by using flooring that is a slotted concrete or wire-mesh floor set above a liquid manure collection pit, which allows the excrement to fall though the flooring into the liquid pit below, which prevents solids build-up. Slats 4 to 8 inches wide with spacing of about 1 inch in between are recommended.

~~s~~p. "Sloped concrete flooring" means reducing PM~~10~~ emissions by pouring concrete with a minimum of 0.25% grade inside of the barns which provides drainage and easier cleaning of floor

areas.

~~t~~q. "Stack separated manure solids" means reducing PM~~10~~ emissions and wind erosion by reducing the amount of exposed surface area of manure solids.

~~u~~r. "Store feed" means reducing PM~~10~~ emissions by storing feed in a structure that is enclosed and weatherproof, which reduces air contact with the feed rations during feed storage.

~~v~~s. "Store separated manure solids" means reducing PM~~10~~ emissions by storing manure solids in a wind-blocked area behind a wall, structure, or area with natural wind protection to minimize blowing air movement over the manure stack.

~~w~~t. "Synthetic particulate suppressant" means reducing PM~~10~~ emissions and wind erosion by providing a ~~surface barrier or binding soil particles together~~ stabilized soil surface on a commercial swine operation with a manufactured product such as lignosulfate, calcium chloride, magnesium chloride, an emulsion of a petroleum product, an enzyme product, or polyacrylamide that is used to control particulate matter.

~~x~~u. "Use a flexible discharge spout" means reducing PM~~10~~ emissions and wind erosion at the time of bulk feed deliveries to the housing units by using a flexible discharge spout on the end of the feed truck transfer auger.

~~y~~v. "Use enclosed feed distribution system" means reducing PM~~10~~ emissions by using an enclosed feed conveyance system that distributes feed rations throughout the housing facility, which reduces air contact with the feed rations during the feed conveyance.

~~z~~w. "Use no bedding in the production facility" means reducing PM~~10~~ emissions by not using bedding such as wood shavings, sawdust, peanut hulls, straw, or other organic material.

R18-2-611.01. Agricultural ~~Animal Operations~~ PM_{10} General Permit for Animal Operations; ~~Moderate and Serious~~ Maricopa County PM_{10} Nonattainment Areas ~~Except Yuma County~~

A. A commercial animal operator in a regulated area shall comply with this Section by ~~March 1, 2013~~ January 1, 2015.

B. A commercial animal operator, who begins a regulated agricultural activity after January 1, 201~~2~~5, shall comply with this Section within 18 months of beginning the regulated agricultural activity.

C. A commercial animal operator within a Serious PM~~10~~ Nonattainment Area shall implement at least two best management practices from each category to reduce PM~~10~~ emissions.

~~D. A commercial animal operator within a Moderate PM10 Nonattainment Area shall implement at least one best management practice from each category to reduce PM10 emissions.~~

~~E~~D. A commercial dairy operation shall implement the following best management practices, as described in subsection (C) ~~or (D)~~, from each of the following categories:

1. Arenas, Corrals, and Pens:
   a. Use free stall housing,
   b. Provide shade in corral,
   c. Provide cooling in corral,
   d. Cement cattle walkways to milk barn,
   e. Groom manure surface,
   f. Water misting systems,
   g. Use drag equipment to maintain pens,
   h. Pile manure between cleanings,
   i. Feed green chop,
   j. Keep calves in barns or hutches,
   k. Do not run cattle,
   l. Apply a fibrous layer, or
   m. Wind barrier.
2. Animal Waste Handling and Transporting:

a. Feed higher moisture feed to dairy cattle,
b. Store and maintain feed stock,
c. Covers for silage,
d. Store silage in bunkers,
e. Increase manure moisture,
f. Cover manure hauling trucks, or
g. Do not load manure trucks with dry manure when wind exceeds 15 mph.

3. Unpaved Access Connections:
   a. Install signage to limit vehicle speed to 15 mph,
   b. Install speed control devices,
   c. Restrict access to through traffic,
   d. Install and maintain a track-out control device,
   e. Apply and maintain pavement in high traffic areas,
   f. Apply and maintain aggregate cover,
   g. Apply and maintain synthetic particulate suppressant, or
   h. Apply and maintain water as a dust suppressant.
4. Unpaved Roads or Feed Lanes:
   a. Install engine speed governors on feed truck to 15 mph,
   b. Install signage to limit vehicle speed to 15 mph,
   c. Install speed control devices,
   d. Restrict access to through traffic,
   e. Apply and maintain pavement in high traffic areas,
   f. Apply and maintain aggregate cover,
   g. Apply and maintain synthetic particulate suppressant,
   h. Apply and maintain water as a dust suppressant,
   i. Use appropriate vehicles such as electric carts or small utility vehicles instead of trucks, or
   j. Apply and maintain pavement or cement feed lanes.

~~F~~E. A commercial beef cattle feedlot shall implement the following best management practices, as described in subsection (C) ~~or (D)~~, from each of the following categories:

1. Arenas, Corrals, and Pens:
   a. Concrete aprons,
   b. Provide shade in corral,
   c. Add moisture to pen surface,
   d. Manure removal,
   e. Pile manure between cleanings,
   ~~f. Increase Manure Moisture,~~
   ~~g~~f. Feed higher moisture feed to beef cattle,
   ~~h~~g. Control cattle during movements,
   ~~i~~h. Use drag equipment to maintain pens,
   ~~j~~i. Apply a fibrous layer, or
   ~~k~~j. Wind barrier.
2. Animal Waste Handling and Transporting:
   a. Feed higher moisture feed to beef cattle,
   b. Add molasses or tallow to feed,
   c. Store and maintain feed stock,
   d. Bulk materials,
   e. Use drag equipment to maintain pens,
   f. Cover manure hauling trucks, or
   g. Do not load manure when wind exceeds 15 mph.
3. Unpaved Access Connections:

a. Install and maintain a track-out control device,
b. Apply and maintain pavement in high traffic areas,
c. Apply and maintain aggregate cover,
d. Apply and maintain synthetic particulate suppressant, or
e. Apply and maintain water as a dust suppressant.

4. Unpaved Roads or Feed Lanes:
   a. Install engine speed governors on feed truck to 15 mph,
   b. Install signage to limit vehicle speed to 15 mph,
   c. Install speed control devices,
   d. Restrict access to through traffic,
   e. Apply and maintain pavement in high traffic areas,
   f. Apply and maintain aggregate cover,
   g. Apply and maintain synthetic particulate suppressant,
   h. Apply and maintain water as a dust suppressant, or
   i. Apply and maintain oil on roads or feed lanes.

~~G~~F.A commercial poultry facility shall implement the following best management practices, as described in subsection (C) ~~or (D)~~, from each of the following categories:

1. Arenas, Corrals, and Pens (Housing):
   a. Clean fans, louvers, and soffit inlets in a commercial poultry facility~~;~~,
   b. Use no bedding~~;~~,
   c. Control vegetation on building exteriors~~;~~,
   d. Add moisture through ventilation systems~~;~~, or
   e. House in fully enclosed ventilated buildings.
2. Animal Waste Handling and Transporting:
   a. Remove spilled feed,
   b. Store feed,
   c. Add oil and/or moisture to the feed,
   d. Use enclosed feed distribution system,
   e. Use flexible discharge spout,
   f. Minimize drop distance,
   g. Enclose transfer points,
   h. Clean floors and walls in a commercial poultry facility,
   i. Clean aisles between cage rows,
   j. Stack separated manure solids, or
   k. Maintain moisture in manure solids.
3. Unpaved Access Connections:
   a. Install speed control devices,
   b. Restrict traffic access,
   c. Install and maintain a track-out control system, or
   d. Install signage to limit vehicle speed to 15 mph.
4. Unpaved Roads or Feed Lanes:
   a. Install engine speed governors on feed trucks to 15 mph,
   b. Install signage to limit vehicle speed to 15 mph,
   c. Install speed control devices,
   d. Restrict traffic access,
   e. Apply and maintain aggregate cover,
   f. Apply and maintain synthetic particulate suppressant,
   g. Apply and maintain water, or
   h. Apply and maintain oil on roads or feed lanes.

~~H~~G.A commercial swine facility shall implement the following best management practices, as described

in subsection (C) ~~or (D)~~, from each of the following categories:

1. Arenas, Corrals, and Pens:
   a. House in fully enclosed ventilated buildings~~;~~,
   b. Use no bedding~~;~~,
   c. Use a slatted floor system~~;~~,
   d. Use sloped concrete flooring~~;~~,
   e. Clean fans, louvers, and soffit inlets in a commercial swine facility~~;~~,
   f. Control vegetation on building exteriors~~;~~, or
   g. Add moisture through ventilation systems.
2. Animal Waste Handling and Transporting:
   a. Remove spilled feed~~;~~,
   b. Store feed~~;~~,
   c. Add oil and/or moisture to feed~~;~~,
   d. Use enclosed feed distribution system~~;~~,
   e. Use flexible discharge spout~~;~~,
   f. Minimize drop distance~~;~~,
   g. Enclose transfer points~~;~~,
   h. Clean pens, floors, and walls in a commercial swine facility~~;~~,
   i. Clean aisles between pens and stalls~~;~~,
   j. Store separated manure solids in a wind-blocked area~~;~~,
   k. Stack separated manure solids~~;~~,
   l. Maintain moisture in manure solids~~;~~, or
   m. Maintain liquid lagoon level.
3. Unpaved Access Connections:
   a. Install speed control devices,
   b. Restrict traffic access,
   c. Install and maintain a track-out control system,
   d. Install signage to limit vehicle speed to 15 mph.
4. Unpaved Roads or Feed Lanes:
   a. Install engine speed governors on feed trucks to 15 mph,
   b. Install signage to limit vehicle speed to 15 mph,
   c. Install speed control devices,
   d. Restrict traffic access,
   e. Apply and maintain aggregate cover,
   f. Apply and maintain synthetic particulate suppressant,
   g. Apply and maintain water,
   h. Apply and maintain oil on roads or feed lanes, or
   i. Wind barrier.

~~I. Beginning March 31, 2013~~2014~~, or within 90 days after the start of a new regulated agricultural activity, whichever is later, the commercial animal operator shall complete and submit a Best Management Practices Program General Permit Record Form to the Arizona Department of Agriculture. Thereafter, the commercial animal operator shall complete and submit the Best Management Practices Program General Permit Record Form by March 31st of each subsequent year. The Best Management Practices Program General Permit Record Form shall include the following information:~~

~~1. At least the required number of best management practices as described in subsection (C) or (D) that the commercial animal operator implemented during the previous calendar year;~~
~~2. At least the required number of best management practices as described in subsection (C) or (D) that the commercial animal operator intends to implement during the current calendar year;~~
~~3. The name, business address, and phone number of the commercial animal operator responsible~~

~~for the preparation and implementation of the best management practices;~~

~~4. The signature of the commercial animal operator and the date the form was signed.~~

H. Beginning January 1, 2015, or within 90 days after the start of a new regulated agricultural activity, whichever is later, the commercial animal operator shall complete a Best Management Practices Program General Permit Record Form. Thereafter, a new Best Management Practices Program General Permit Record Form shall be completed every year by March 31. The Form shall be provided to the Director within two business days of notice to the commercial animal operator. The Best Management Practice Program General Permit Record form shall include the following information:

1. The name of the commercial animal operator, signature, and date signed,
2. The mailing address or physical address of the commercial animal operation, and
3. The best management practices selected for Arenas, Corrals, and Pens, Animal Waste Handling and Transporting, Unpaved Access Connections, and Unpaved Roads or Feed Lanes.

~~J. Beginning in Calendar Year 2014~~2015~~, and no more than once every subsequent three calendar years, the Director shall provide the commercial animal operator with a Best Management Practices Program Periodic Survey. The commercial animal operator may complete and submit the survey to the Arizona Department of Agriculture. The Periodic Survey shall include the following information:~~

~~1. The number of animals in a commercial dairy operation, beef cattle feed lot, poultry facility or swine facility;~~

~~2. The total miles of unpaved roads at the commercial dairy operation, beef cattle feed lot, poultry facility or swine facility; and~~

~~3. The total acreage of the unpaved access connections and equipment areas at the commercial dairy operation, beef cattle feed lot, poultry facility or swine facility.~~

~~K~~I. Beginning ~~March 31, 2013~~January 1, 2015, a commercial animal operator shall maintain records demonstrating compliance with this Section for three years. Records shall include a copy of the complete Best Management Practice Program General Permit Record Form to confirm implementation of each best management practice and any changes to the best management practices. ~~identified in the most recently submitted Best Management Practices Program General Permit Record Form.~~ Records shall be kept by the commercial animal operator onsite and made available for review within two business days of notice to the commercial animal operator. ~~A commercial animal operator shall maintain a record demonstrating compliance with this Section for three years.~~

~~L~~J. A person may develop different practices not contained in subsection (D), (E), (F), or (G), ~~or (H)~~ that reduce PM~~10~~ and may submit such practices that are proven effective through on-farm demonstration trials to the Committee. The new best management practices shall not become effective unless approved as described in A.R.S. § 49-457(L).

~~M~~K. The Director shall not assess a fee to a commercial animal operator for coverage under the agricultural PM~~10~~ general permit.

~~N~~L. A commercial animal operator shall ensure that the implementation of all selected best management practices does not violate any other local, state, or federal law.

~~O~~M. The Director shall document noncompliance with this Section before issuing a compliance order.

~~P~~N. A commercial animal operator who is not in compliance with this Section is subject to the provisions in A.R.S. § 49-457(I), (J), and (K).

R18-2-611.02 Agricultural PM General Permit for Animal Operations; Moderate PM Nonattainment Areas Designated After June 1, 2009, Except Pinal County PM Nonattainment Area

A. A commercial animal operator in a regulated area shall comply with this Section by January 1, 2015.

B. A commercial animal operator, who begins a regulated agricultural activity after January 1, 2015, shall comply with this Section within 18 months of beginning the regulated agricultural activity.

C. A commercial animal operator within a Moderate PM Nonattainment Area, designated after June 1, 2009, shall implement at least one best management practice from each category to reduce PM emissions.

D. A commercial dairy operation shall implement the following best management practices, as described in subsection (C), from each of the following categories:
   1. Arenas, Corrals, and Pens:
      a. Use free stall housing,
      b. Provide shade in corral,
      c. Provide cooling in corral,
      d. Cement cattle walkways to milk barn,
      e. Groom manure surface,
      f. Water misting systems,
      g. Use drag equipment to maintain pens,
      h. Pile manure between cleanings,
      i. Feed green chop,
      j. Keep calves in barns or hutches,
      k. Do not run cattle,
      l. Apply a fibrous layer, or
      m. Wind barrier.
   2. Animal Waste Handling and Transporting:
      a. Feed higher moisture feed to dairy cattle,
      b. Store and maintain feed stock,
      c. Covers for silage,
      d. Store silage in bunkers,
      e. Increase manure moisture,
      f. Cover manure hauling trucks, or
      g. Do not load manure trucks with dry manure when wind exceeds 15 mph.
   3. Unpaved Access Connections:
      a. Install signage to limit vehicle speed to 15 mph,
      b. Install speed control devices,
      c. Restrict access to through traffic,
      d. Install and maintain a track-out control device,
      e. Apply and maintain pavement in high traffic areas,
      f. Apply and maintain aggregate cover,
      g. Apply and maintain synthetic particulate suppressant, or
      h. Apply and maintain water as a dust suppressant.
   4. Unpaved Roads or Feed Lanes:
      a. Install engine speed governors on feed truck to 15 mph,
      b. Install signage to limit vehicle speed to 15 mph,
      c. Install speed control devices,
      d. Restrict access to through traffic,
      e. Apply and maintain pavement in high traffic areas,
      f. Apply and maintain aggregate cover,
      g. Apply and maintain synthetic particulate suppressant,
      h. Apply and maintain water as a dust suppressant,
      i. Use appropriate vehicles such as electric carts or small utility vehicles instead of trucks, or
      j. Apply and maintain pavement or cement feed lanes.

E. A commercial beef cattle feedlot shall implement the following best management practices, as described in subsection (C), from each of the following categories:
   1. Arenas, Corrals, and Pens:
      a. Concrete aprons,
      b. Provide shade in corral,
      c. Add moisture to pen surface,

d. Manure removal,
e. Pile manure between cleanings,
f. Feed higher moisture feed to beef cattle,
g. Control cattle during movements,
h. Use drag equipment to maintain pens,
i. Apply a fibrous layer, or
j. Wind barrier.

2. Animal Waste Handling and Transporting:
a. Feed higher moisture feed to beef cattle,
b. Add molasses or tallow to feed,
c. Store and maintain feed stock,
d. Bulk materials,
e. Use drag equipment to maintain pens,
f. Cover manure hauling trucks, or
g. Do not load manure when wind exceeds 15 mph.

3. Unpaved Access Connections:
a. Install and maintain a track-out control device,
b. Apply and maintain pavement in high traffic areas,
c. Apply and maintain aggregate cover,
d. Apply and maintain synthetic particulate suppressant, or
e. Apply and maintain water as a dust suppressant.

4. Unpaved Roads or Feed Lanes:
a. Install engine speed governors on feed truck to 15 mph,
b. Install signage to limit vehicle speed to 15 mph,
c. Install speed control devices,
d. Restrict access to through traffic,
e. Apply and maintain pavement in high traffic areas,
f. Apply and maintain aggregate cover,
g. Apply and maintain synthetic particulate suppressant,
h. Apply and maintain water as a dust suppressant, or
i. Apply and maintain oil on roads or feed lanes.

F. A commercial poultry facility shall implement the following best management practices, as described in subsection (C), from each of the following categories:

1. Arenas, Corrals, and Pens (Housing):
a. Clean fans, louvers, and soffit inlets in a commercial poultry facility,
b. Use no bedding,
c. Control vegetation on building exteriors;
d. Add moisture through ventilation systems, or
e. House in fully enclosed ventilated buildings.

2. Animal Waste Handling and Transporting:
a. Remove spilled feed,
b. Store feed,
c. Add oil and/or moisture to the feed,
d. Use enclosed feed distribution system,
e. Use flexible discharge spout,
f. Minimize drop distance,
g. Enclose transfer points,
h. Clean floors and walls in a commercial poultry facility,
i. Clean aisles between cage rows,
j. Stack separated manure solids, or

k. Maintain moisture in manure solids.

3. Unpaved Access Connections:
   a. Install speed control devices,
   b. Restrict traffic access,
   c. Install and maintain a track-out control system, or
   d. Install signage to limit vehicle speed to 15 mph.
4. Unpaved Roads or Feed Lanes:
   a. Install engine speed governors on feed trucks to 15 mph,
   b. Install signage to limit vehicle speed to 15 mph,
   c. Install speed control devices,
   d. Restrict traffic access,
   e. Apply and maintain aggregate cover,
   f. Apply and maintain synthetic particulate suppressant,
   g. Apply and maintain water, or
   h. Apply and maintain oil on roads or feed lanes.

G. A commercial swine facility shall implement the following best management practices, as described in subsection (C), from each of the following categories:

1. Arenas, Corrals, and Pens:
   a. House in fully enclosed ventilated buildings,
   b. Use no bedding,
   c. Use a slatted floor system,
   d. Use sloped concrete flooring,
   e. Clean fans, louvers, and soffit inlets in a commercial swine facility,
   f. Control vegetation on building exteriors, or
   g. Add moisture through ventilation systems.
2. Animal Waste Handling and Transporting:
   a. Remove spilled feed,
   b. Store feed,
   c. Add oil and/or moisture to feed,
   d. Use enclosed feed distribution system,
   e. Use flexible discharge spout,
   f. Minimize drop distance,
   g. Enclose transfer points,
   h. Clean pens, floors, and walls in a commercial swine facility,
   i. Clean aisles between pens and stalls,
   j. Store separated manure solids in a wind-blocked area,
   k. Stack separated manure solids,
   l. Maintain moisture in manure solids, or
   m. Maintain liquid lagoon level.
3. Unpaved Access Connections:
   a. Install speed control devices,
   b. Restrict traffic access,
   c. Install and maintain a track-out control system,
   d. Install signage to limit vehicle speed to 15 mph.
4. Unpaved Roads or Feed Lanes:
   a. Install engine speed governors on feed trucks to 15 mph,
   b. Install signage to limit vehicle speed to 15 mph,
   c. Install speed control devices,
   d. Restrict traffic access,
   e. Apply and maintain aggregate cover,

f. Apply and maintain synthetic particulate suppressant,
g. Apply and maintain water,
h. Apply and maintain oil on roads or feed lanes, or
i. Wind barrier.

H. Beginning January 1, 2015, or within 90 days after the start of a new regulated agricultural activity, whichever is later, the commercial animal operator shall complete a Best Management Practices Program General Permit Record Form. Thereafter, a new Best Management Practices Program General Permit Record Form shall be completed every year by March 31st. The Form shall be provided to the Director within two business days of notice to the commercial animal operator. The Best Management Practices Program General Permit Record Form shall include the following information:
1. The name of the commercial animal operator, signature, and date signed,
2. The mailing address or physical address of the commercial animal operation, and
3. The best management practices selected for Arenas, Corrals, and Pens, Animal Waste Handling and Transporting, Unpaved Access Connections, and Unpaved Roads or Feed Lanes.

I. Beginning 1, 2015, a commercial animal operator shall maintain records demonstrating compliance with this Section for three years. Records shall include a copy of the complete Best Management Practice Program General Permit Record Form to confirm implementation of each best management practice and any changes to the best management practices. Records shall be kept by the commercial animal operator onsite and made available for review within two business days of notice to the commercial animal operator.

J. A person may develop different practices not contained in subsection (D), (E), (F), or (G) that reduce PM and may submit such practices that are proven effective through on-farm demonstration trials to the Committee. The new best management practices shall not become effective unless approved as described in A.R.S. § 49-457(L).

K. The Director shall not assess a fee to a commercial animal operator for coverage under the agricultural PM general permit.

L. A commercial animal operator shall ensure that the implementation of all selected best management practices does not violate any other local, state, or federal law.

M. The Director shall document noncompliance with this Section before issuing a compliance order.

N. A commercial animal operator who is not in compliance with this Section is subject to the provisions in A.R.S. § 49-457(I), (J), and (K).

R18-2-611.03 Agricultural PM General Permit for Animal Operations; Pinal County PM Nonattainment Area

A. A commercial animal operator in a regulated area shall comply with this Section by January 1, 2015.

B. A commercial animal operator, who begins a regulated agricultural activity after January 1, 2015, shall comply with this Section within 18 months of beginning the regulated agricultural activity.

C. A commercial animal operator within the Pinal County PM Nonattainment Area shall implement at least one best management practice from each category to reduce PM emissions.

D. In addition to subsection (C), commercial dairy operation within the Pinal County PM Nonattainment Area, shall apply and maintain water as a dust suppressant to unpaved roads that experience more than 20 VDT from 2 or more axle vehicles, the day that is forecast to be high risk for dust generation by the Pinal County Dust Control Forecast.

E. In addition to subsection (C), commercial beef feedlots within the Pinal County PM Nonattainment Area, shall add water to pen surface, as defined in R18-2-611(3)(a), on the day that is forecast to be high risk for dust generation by the Pinal County Dust Control Forecast.

F. A commercial dairy operation shall implement the following best management practices, as described in subsection (C), from each of the following categories:
1. Arenas, Corrals, and Pens:

a. Use free stall housing,
b. Provide shade in corral,
c. Provide cooling in corral,
d. Cement cattle walkways to milk barn,
e. Groom manure surface,
f. Water misting systems,
g. Use drag equipment to maintain pens,
h. Pile manure between cleanings,
i. Feed green chop,
j. Keep calves in barns or hutches,
k. Do not run cattle,
l. Apply a fibrous layer, or
m. Wind barrier.

2. Animal Waste Handling and Transporting:
   a. Feed higher moisture feed to dairy cattle,
   b. Store and maintain feed stock,
   c. Covers for silage,
   d. Store silage in bunkers,
   e. Increase manure moisture,
   f. Cover manure hauling trucks, or
   g. Do not load manure trucks with dry manure when wind exceeds 15 mph.
3. Unpaved Access Connections:
   a. Install signage to limit vehicle speed to 15 mph,
   b. Install speed control devices,
   c. Restrict access to through traffic,
   d. Install and maintain a track-out control device,
   e. Apply and maintain pavement in high traffic areas,
   f. Apply and maintain aggregate cover,
   g. Apply and maintain synthetic particulate suppressant, or
   h. Apply and maintain water as a dust suppressant.
4. Unpaved Roads or Feed Lanes:
   a. Install engine speed governors on feed truck to 15 mph,
   b. Install signage to limit vehicle speed to 15 mph,
   c. Install speed control devices,
   d. Restrict access to through traffic,
   e. Apply and maintain pavement in high traffic areas,
   f. Apply and maintain aggregate cover,
   g. Apply and maintain synthetic particulate suppressant,
   h. Apply and maintain water as a dust suppressant,
   i. Use appropriate vehicles such as electric carts or small utility vehicles instead of trucks, or
   j. Apply and maintain pavement or cement feed lanes.

G. A commercial beef cattle feedlot shall implement the following best management practices, as described in subsection (C), from each of the following categories:

1. Arenas, Corrals, and Pens:
   a. Concrete aprons,
   b. Provide shade in corral,
   c. Add water to pen surface,
   d. Manure removal,
   e. Pile manure between cleanings,
   f. Feed higher moisture feed to beef cattle,

g. Control cattle during movements,
h. Use drag equipment to maintain pens,
i. Apply a fibrous layer, or
j. Wind barrier.

2. Animal Waste Handling and Transporting:
a. Feed higher moisture feed to beef cattle;
b. Add molasses or tallow to feed,
c. Store and maintain feed stock,
d. Bulk materials,
e. Use drag equipment to maintain pens,
f. Cover manure hauling trucks, or
g. Do not load manure when wind exceeds 15 mph.

3. Unpaved Access Connections:
a. Install and maintain a track-out control device,
b. Apply and maintain pavement in high traffic areas,
c. Apply and maintain aggregate cover,
d. Apply and maintain synthetic particulate suppressant, or
e. Apply and maintain water as a dust suppressant.

4. Unpaved Roads or Feed Lanes:
a. Install engine speed governors on feed truck to 15 mph,
b. Install signage to limit vehicle speed to 15 mph,
c. Install speed control devices,
d. Restrict access to through traffic,
e. Apply and maintain pavement in high traffic areas,
f. Apply and maintain aggregate cover,
g. Apply and maintain synthetic particulate suppressant,
h. Apply and maintain water as a dust suppressant, or
i. Apply and maintain oil on roads or feed lanes.

H. A commercial poultry facility shall implement the following best management practices, as described in subsection (C), from each of the following categories:

1. Arenas, Corrals, and Pens (Housing):
a. Clean fans, louvers, and soffit inlets in a commercial poultry facility,
b. Use no bedding,
c. Control vegetation on building exteriors,
d. Add moisture through ventilation systems, or
e. House in fully enclosed ventilated buildings.

2. Animal Waste Handling and Transporting:
a. Remove spilled feed,
b. Store feed,
c. Add oil and/or moisture to the feed,
d. Use enclosed feed distribution system,
e. Use flexible discharge spout,
f. Minimize drop distance,
g. Enclose transfer points,
h. Clean floors and walls in a commercial poultry facility,
i. Clean aisles between cage rows,
j. Stack separated manure solids, or
k. Maintain moisture in manure solids.

3. Unpaved Access Connections:
a. Install speed control devices,

b. Restrict traffic access,
c. Install and maintain a track-out control system, or
d. Install signage to limit vehicle speed to 15 mph.

4. Unpaved Roads or Feed Lanes:
a. Install engine speed governors on feed trucks to 15 mph,
b. Install signage to limit vehicle speed to 15 mph,
c. Install speed control devices,
d. Restrict traffic access,
e. Apply and maintain aggregate cover,
f. Apply and maintain synthetic particulate suppressant,
g. Apply and maintain water, or
h. Apply and maintain oil on roads or feed lanes.

I. A commercial swine facility shall implement the following best management practices, as described in subsection (C), from each of the following categories:

1. Arenas, Corrals, and Pens:
a. House in fully enclosed ventilated buildings,
b. Use no bedding,
c. Use a slatted floor system,
d. Use sloped concrete flooring,
e. Clean fans, louvers, and soffit inlets in a commercial swine facility,
f. Control vegetation on building exteriors, or
g. Add moisture through ventilation systems.

2. Animal Waste Handling and Transporting:
a. Remove spilled feed,
b. Store feed,
c. Add oil and/or moisture to feed,
d. Use enclosed feed distribution system,
e. Use flexible discharge spout,
f. Minimize drop distance,
g. Enclose transfer points,
h. Clean pens, floors, and walls in a commercial swine facility,
i. Clean aisles between pens and stalls,
j. Store separated manure solids in a wind-blocked area,
k. Stack separated manure solids,
l. Maintain moisture in manure solids, or
m. Maintain liquid lagoon level.

3. Unpaved Access Connections:
a. Install speed control devices,
b. Restrict traffic access,
c. Install and maintain a track-out control system,
d. Install signage to limit vehicle speed to 15 mph.

4. Unpaved Roads or Feed Lanes:
a. Install engine speed governors on feed trucks to 15 mph,
b. Install signage to limit vehicle speed to 15 mph,
c. Install speed control devices,
d. Restrict traffic access,
e. Apply and maintain aggregate cover,
f. Apply and maintain synthetic particulate suppressant,
g. Apply and maintain water,
h. Apply and maintain oil on roads or feed lanes, or

i. Wind barrier.

H. Beginning January 1, 2015, or within 90 days after the start of a new regulated agricultural activity, whichever is later, the commercial animal operator shall complete a Best Management Practices Program General Permit Record Form. Thereafter, a new Best Management Practices Program General Permit Record Form shall be completed every year by March 31. The Form shall be provided to the Director within two business days of notice to the commercial animal operator. The Best Management Practices Program General Permit Record Form shall include the following information:
1. The name of the commercial animal operator, signature, and date signed,
2. The mailing address or physical address of the commercial animal operation, and
3. The best management practices selected for Arenas, Corrals, and Pens, Animal Waste Handling and Transporting, Unpaved Access Connections, and Unpaved Roads or Feed Lanes.

I. Beginning in Calendar Year 2017, and no more than once every subsequent three calendar years, the Director shall provide the commercial animal operator with a Best Management Practices Program 3-year Expanded Report. The commercial animal operator shall complete and submit the Report to the Arizona Department of Agriculture within 90 days of receipt. The 3-year Expanded Report shall include the following information:
1. The name, business address, and phone number of the commercial farmer responsible for the preparation and implementation of the best management practices;
2. The signature of the commercial farmer and the date the form was signed;
3. The number of animals in a commercial dairy operation, beef cattle feed lot, poultry facility or swine facility;
4. The total miles of unpaved roads at the commercial dairy operation, beef cattle feed lot, poultry facility or swine facility;
5. The total acreage of the unpaved access connections and equipment areas at the commercial dairy operation, beef cattle feed lot, poultry facility or swine facility;
6. The best management practices selected for each category; and
7. For commercial dairy operations and beef cattle feedlots, an acknowledgement that water was applied on the day of a high risk day as predicted by the Pinal County Dust Control Forecast.

J. Beginning 1, 2015, a commercial animal operator shall maintain records demonstrating compliance with this Section for three years. Records shall include a copy of the complete Best Management Practice Program General Permit Record Form to confirm implementation of each best management practice and any changes to the best management practices. Records shall be kept by the commercial animal operator onsite and made available for review within two business days of notice to the commercial animal operator.

K. A person may develop different practices not contained in subsection (F), (G), (H), or (I) that reduce PM and may submit such practices that are proven effective through on-farm demonstration trials to the Committee. The new best management practices shall not become effective unless approved as described in A.R.S. § 49-457(L).

L. The Director shall not assess a fee to a commercial animal operator for coverage under the agricultural PM general permit.

M. A commercial animal operator shall ensure that the implementation of all selected best management practices does not violate any other local, state, or federal law.

N. The Director shall document noncompliance with this Section before issuing a compliance order.

O. A commercial animal operator who is not in compliance with this Section is subject to the provisions in A.R.S. § 49-457(I), (J), and (K).

R18-2-612. Definitions for ~~R18-2-613~~ R18-2-612.01

~~1. "Access restriction" means restricting or eliminating public access to noncropland with signs or physical obstruction.~~

2. ~~"Aggregate cover" means gravel, concrete, recycled road base, caliche, or other similar material applied to noncropland.~~
3. ~~"Artificial wind barrier" means a physical barrier to the wind.~~
4. ~~"Bed row spacing" means increasing or decreasing the size of a planting bed area to reduce the number of passes and soil disturbance by increasing plant density.~~
5. ~~"Best management practice" means a technique verified by scientific research, that on a case-by-case basis is practical, economically feasible, and effective in reducing PM10 emissions from a regulated agricultural activity.~~
6. ~~"Chemical irrigation" means applying a fertilizer, pesticide, or other agricultural chemical to cropland through an irrigation system.~~
7. ~~"Combining tractor operations" means performing two or more tillage, cultivation, planting, or harvesting operations with a single tractor or harvester pass.~~
8. ~~"Commercial farm" means 10 or more contiguous acres of land used for agricultural purposes within the boundary of the Yuma PM10 nonattainment area.~~
9. ~~"Commercial farmer" means an individual, entity, or joint operation in general control of a commercial farm.~~
10. ~~"Conservation irrigation" means the use of drips, sprinklers, or underground lines to conserve water, and to reduce the weed population, the need for tillage, and soil compaction.~~
11. ~~"Conservation tillage" means types of tillage that reduce the number of passes and the amount of soil disturbance.~~
12. ~~"Cover crop" means plants or a green manure crop grown for seasonal soil protection or soil improvement.~~
13. ~~"Critical area planting" means using trees, shrubs, vines, grasses, or other vegetative cover on noncropland.~~
14. ~~"Cropland" means land on a commercial farm that:~~
    a. ~~Is within the time-frame of final harvest to plant emergence;~~
    b. ~~Has been tilled in a prior year and is suitable for crop production, but is currently fallow; or~~
    c. ~~Is a turn-row.~~
15. ~~"Cross-wind ridges" means soil ridges formed by a tillage operation.~~
16. ~~"Cross-wind strip-cropping" means planting strips of alternating crops within the same field.~~
17. ~~"Cross-wind vegetative strips" means herbaceous cover established in one or more strips within the same field.~~
18. ~~"Equipment modification" means modifying agricultural equipment to prevent or reduce particulate matter generation from cropland.~~
19. ~~"Limited activity during a high-wind event" means performing no tillage or soil preparation activity when the measured wind speed at six feet in height is more than 25 mph at the commercial farm site.~~
20. ~~"Manure application" means applying animal waste or biosolids to a soil surface.~~
21. ~~"Mulching" means applying plant residue or other material that is not produced onsite to a soil surface.~~
22. ~~"Multi-year crop" means a crop, pasture, or orchard that is grown, or will be grown, on a continuous basis for more than one year.~~
23. ~~"Night farming" means performing regulated agricultural activities at night when moisture levels are higher and winds are lighter.~~
24. ~~"Noncropland" means any commercial farmland that:~~
    a. ~~Is no longer used for agricultural production;~~
    b. ~~Is no longer suitable for production of crops;~~
    c. ~~Is subject to a restrictive easement or contract that prohibits use for the production of crops; or~~
    d. ~~Includes a private farm road, ditch, ditch bank, equipment yard, storage yard, or well head.~~
25. ~~"Permanent cover" means a perennial vegetative cover on cropland.~~
26. ~~"Planting based on soil moisture" means applying water to soil before performing planting~~

~~operations.~~

27. ~~"Precision farming" means use of satellite navigation to calculate position in the field, to reduce overlap during field operations, and allow operations to occur during nighttime and inclement weather, thus generating less PM10.~~
28. ~~"Reduce vehicle speed" means operating farm vehicles or farm equipment on unpaved farm roads at speeds not to exceed 20 mph.~~
29. ~~"Reduced harvest activity" means reducing the number of harvest passes using a mechanized method to cut and remove crops from a field.~~
30. ~~"Regulated agricultural activity" means a commercial farming practice that may produce PM10 within the Yuma PM10 nonattainment area.~~
31. ~~"Residue management" means managing the amount and distribution of crop and other plant residues on a soil surface.~~
32. ~~"Sequential cropping" means growing crops in a sequence that minimizes the amount of time bare soil is exposed on a field.~~
33. ~~"Surface roughening" means manipulating a soil surface to produce or maintain clods.~~
34. ~~"Synthetic particulate suppressant" means a manufactured product such as lignosulfate, calcium chloride, magnesium chloride, and polyacrylamide, an emulsion of a petroleum product, and an enzyme product that is used to control particulate matter.~~
35. ~~"Tillage and harvest" means any mechanical practice that physically disturbs cropland or crops on a commercial farm.~~
36. ~~"Tillage based on soil moisture" means applying water to soil before or during tillage, or delaying tillage to coincide with precipitation.~~
37. ~~"Timing of a tillage operation" means performing tillage operations at a time that will minimize the soil's susceptibility to generate PM10.~~
38. ~~"Transgenic crops" means the use of genetically modified crops such as "herbicide ready" crops, which reduces the need for tillage or cultivation operations, and reduces soil disturbance.~~
39. ~~"Track-out control system" means a device to remove mud or soil from a vehicle before the vehicle enters a paved public road.~~
40. ~~"Tree, shrub, or windbreak planting" means providing a woody vegetative barrier to the wind.~~
41. ~~"Watering" means applying water to noncropland.~~
42. ~~"Yuma PM10 nonattainment area" means the Yuma PM10 planning area as defined in 40 CFR 81.303, which is incorporated by reference in R18-2-210.~~

The definitions in R18-2-101 and the following definitions apply to R18-2-612.01:

1. "Access restriction" means reducing PM emission by reducing the number of trips driven on unpaved operation and maintenance and unpaved utility roads by restricting or eliminating public access by the used of signs or physical obstruction at locations that effectively control access to roads.
2. "Aggregate cover" means reducing PM emissions, wind erosion and stabilizing soil by applying and maintaining gravel, concrete, recycled road base, caliche, or other similar material to unpaved roads. The aggregate should be clean, hard and durable, and should be applied a depth sufficient to create soil stabilization in accordance with material specifications. A minimum depth of three inches is the standard in the absence of such specifications.
3. "Apply and maintain water" means reducing PM emissions and wind erosion by applying water to bare soil surfaces until the surfaces are visibly moist.
4. "Best management practice" means a technique verified by scientific research, that on a case-by-case basis is practical, economically feasible, and effective in reducing PM emissions from a regulated agricultural activity.
5. "Biological control of aquatic weeds" means reducing at least one trip, or to one trip if only one trip is needed, per treatment, made by vehicles for the purposes of removing aquatic weeds from canals by using fish, and other biologic means, within the canal through the use of to control the growth of

aquatic weeds that reduce operating capacities and create debris that causes other operational issues.

6. "Canals" means facilities constructed for the sole purpose of the control, conveyance, and delivery of water. These facilities may be either open earthen channels, lined or unlined, or buried pipelines, which are used to convey water uphill and under obstructions, such as roadways and wash and river channels. These facilities include, but are not limited to, gate, inlet, outlet, safety, and measuring structures required to control water along the canals and deliver water to irrigation district customers, as well as compacted earthen banks constructed to protect these facilities from storm runoff events.
7. "Committee" means the Governor's Agricultural Best Management Practices Committee.
8. "Debris" means trash, rubble, and other non-soil materials.
9. "Dredge canals" means reducing PM emissions by mechanically removing muck, debris, and other foreign objects from canals while material is still wet or damp.
10. "Earth materials" means natural materials covering the ground surface, which includes, but are not limited to, dirt, rocks, or soil.
11. "Grading roadways" means mechanically smoothing and compacting the roadway surface.
12. "Irrigation District" means a political subdivision, governed by title 48, chapter 19.
13. "Limited activity" means performing only critical operational or emergency activity on a day forecast to be high risk for dust generation as forecasted by the Pinal County Dust Control Forecast.
14. "Major earth moving activities" means the mechanical movement of earth materials to reconstruct, relocate, reshape, reconfigure canals, including operation and maintenance roads and utility access roads.
15. "Maricopa PM nonattainment area" means the Phoenix planning area as defined in 40 CFR 81.303, which is incorporated by reference in R18-2-210.
16. "Minor earth moving activities" means the mechanical movement of earth materials to repair and maintain the existing configuration, location, bank slopes, or inclines of canals.
17. "Muck" means water that is saturated with mud, dirt, and soil, which accumulates over time along the bottom of canals.
18. "Paved Public Road" means any paved roadways that are open to public travel and maintained by a City, County, or the State.
19. "Pinal County PM Nonattainment Area" means the West Pinal PM_{10} planning area and the West Central $PM_{2.5}$ planning area, as defined in 40 CFR 81.303, and incorporated by reference in R18-2-210.
20. "PM" includes both particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers as measured by a reference method based on 40 CFR 50 Appendix L, or by an equivalent method designated according to 40 CFR 53; and particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by a reference method contained within 40 CFR 50 Appendix J or by an equivalent method designated in accordance with 40 CFR 53, as incorporated by reference in Appendix 2.
21. "Reduce vehicle speed" means reducing PM emissions and soil erosion from the use of vehicles owned or operated by the irrigation district on unpaved operation, maintenance, and utility access roads, at speeds not to exceed 25 mph. This can be achieved through worker behavior modifications, signage, or any other necessary means.
22. "Regulated agricultural activity" means activities of an irrigation district, which affects those lands and facilities that are under the jurisdiction and control of an irrigation district, as described in § 49-457(P)(1)(f) and A.R.S. § 49-457(P)(5)(b).
23. "Regulated area" means a regulated area as defined in A.R.S. § 49-457(P)(6)(c).
24. "Sediment" means muck that has dried after removal from canals.
25. "Supervisory control system" means a system that allows the irrigation district to control operational structures from a remote computer location in order to reduce at least one trip made by vehicles to access structures for operational purposes.
26. "Synthetic or natural particulate suppressant" means reducing PM emissions and wind erosion by

providing a stabilized soil surface with organic material, such as muck, animal waste or biosolids, or with a manufactured product such as lignosulfate, calcium chloride, magnesium chloride, an emulsion of a petroleum product, an enzyme product, or polyacrylamide.

27. "Track-out control system" means minimizing any and all material that adheres to and agglomerates on all vehicles and equipment and falls onto paved public roads or shoulders to paved public roads by using a device or system to remove mud or soil from a vehicle or equipment before the vehicle enters a paved public road. Devices such as a grizzly, a gravel pad or a wheel wash system can be used.
28. "Unauthorized use" means any travel or access by non-district personnel in non-district vehicles along roadways under the control of an irrigation district without the permission of the irrigation district.
29. "Unpaved operation and maintenance roads" means unpaved roadways that lay adjacent to canals, which provide access for irrigation district personnel and equipment for direct operation and maintenance of canals.
30. "Unpaved utility access roads" means unpaved roadways used to provide access to canals, and also includes office and shop facilities, equipment yards, staging areas and other lands under the control of the irrigation district.
31. "Weed management" means reducing at least one trip made by vehicles for the purposes of removing weeds by using a combination of techniques, including organic, chemical, or biological means, to control weeds along canal banks and land surfaces not used for conveying water, excluding unpaved roadways.
32. "Wind barrier" means reducing PM~~10~~ emissions and wind erosion by constructing a fence or structure, or providing a woody vegetative barrier by planting a row of trees or shrubs, perpendicular or across the prevailing wind direction to reduce wind speed by changing the pattern of air flow over the land surface. For fences and structures, the wind barrier shall have a density of no less than 50% and the height of the wind barrier must be proportionate to the downwind protected area. The downwind protected area is considered ten times the height of the wind barrier. For vegetative barriers, compliance shall be determined by NRCS Conservation Practice Standard, Code 380, Windbreak/Shelterbelt Establishment, amended through August 21, 2009 (and no future editions).

R18-2-612.01. Agricultural PM General Permit For Irrigation Districts; PM Nonattainment Areas Designated After June 1, 2009

A. An irrigation district in a regulated area shall comply with this Section by January 1, 2015.
B. An irrigation district, who begins a regulated agricultural activity after January 1, 2015 shall comply with this Section within three months of beginning the regulated agricultural activity.
C. An irrigation district within a PM Nonattainment Area, designated after June 1, 2009, shall implement at least one best management practice from each of the following categories to reduce PM emissions:
   1. Unpaved operation and maintenance roads:
      a. Access restriction,
      b. Apply and maintain aggregate cover,
      c. Install supervisory control system to limit vehicle travel,
      d. Limite activity,
      e. Install signage to limit vehicle speed to 25 mph,
      f. Post warning signs for unauthorized use at point of entry to roads,
      g. Reduce vehicle speed,
      h. Install and maintain a track-out control system,
      i. Apply and maintain synthetic or natural particulate suppressant,
      j. Apply and maintain water before, during, and after major and minor earth moving activities,
      k. Apply and maintain water when grading roadways,
      l. Use paved non-district or paved public roads to access structures, or

m. Install wind barriers.

2. Canals:
   a. Dredge canals while muck or debris is still wet,
   b. Dispose of muck or debris while still damp,
   c. Weed management,
   d. Biological control of aquatic weeds, or
   e. Apply and maintain water before, during and after major and minor earth moving activities.
3. Unpaved utility access roads:
   a. Access restriction,
   b. Apply and maintain aggregate cover,
   d. Limit activity,
   e. Install signage to limit vehicle speed to 25 mph,
   f. Post warning signs for unauthorized use at points of entry to roads,
   g. Reduce vehicle speed,
   h. Install and maintain a track-out control system,
   i. Apply and maintain pavement,
   j. Apply and maintain synthetic or natural particulate suppressant,
   k. Apply and maintain water before, during and after major and minor earth moving activities,
   l. Apply and maintain water when grading roadways,
   m. Use paved non-district or paved public roads to access structures, or
   n. Install wind barriers.

D. Beginning January 1, 2015, or within 90 days after the start of a new regulated agricultural activity, whichever is later, the irrigation district shall complete a Best Management Practices Program General Permit Record Form. Thereafter, a new Best Management Practices Program General Permit Record Form shall be completed every year by March 31. The Form shall be provided to the Director within two business days of notice to the irrigation district. The Best Management Practice Program General Permit Record form shall include the following information:
   1. The name, business address, and of the of the irrigation district representative responsible for the preparation and implementation of the best management practices;
   2. The signature of the irrigation district representative and the date the form was signed; and
   3. The best management practice selected for unpaved operation and utility roads, canals,and unpaved utility access roads.

E. Records of any changes to those Best Management Practices shall be noted on the Best Management Practices Program General Permit Record Form and shall be kept by the irrigation district onsite and made available for review within two business days of notice to the irrigation district by the Department.

F. A person may petition the Committee to consider different practices to control PM_{10} emissions not contained in either of the categories of subsection (C)(1), (C)(2), or (C)(3). The Committee may require in-district demonstration trials to be conducted under the conditions established by the Committee. The proposed new practices shall not become effective unless approved by the Committee.

G. An irrigation district shall maintain a record demonstrating compliance with this Section for three years. Records shall include a copy of the complete Best Management Practice Program General Permit Record Form to confirm implementation of each best management practice.

H. The Director shall not assess a fee to an irrigation district for coverage under the agricultural PM general permit.

I. An irrigation district shall ensure that the implementation of all selected best management practices does not violate any other local, state, or federal law.

J. The Director shall document noncompliance with this Section before issuing a compliance order.

K. An irrigation district that is not in compliance with this Section is subject to the provisions in A.R.S.

§ 49-457(I), (J), and (K).

R18-2-613. ~~Yuma PM10 Nonattainment Area; Agricultural Best Management Practices~~ Definitions for R18-2-613.01

~~A. A commercial farmer shall comply with this Section by August 1, 2005.~~

~~B. A commercial farmer who begins a regulated agricultural activity after August 1, 2005, shall comply with this Section within 60 days after beginning the regulated agricultural activity.~~

~~C. A commercial farmer shall implement at least one of the best management practices from each of the following categories at each commercial farm:~~

~~1. Tillage and harvest, subsection (E);~~
~~2. Noncropland, subsection (F); and~~
~~3. Cropland, subsection (G).~~

~~D. A commercial farmer shall ensure that the implementation of each selected best management practice does not violate any other local, state, or federal law.~~

~~E. A commercial farmer shall implement at least one of the following best management practices to reduce PM10 emissions from tillage and harvest:~~

~~1. Bed row spacing,~~
~~2. Chemical irrigation,~~
~~3. Combining tractor operations,~~
~~4. Conservation irrigation,~~
~~5. Conservation tillage,~~
~~6. Equipment modification,~~
~~7. Limited activity during a high-wind event,~~
~~8. Multi-year crop,~~
~~9. Night farming,~~
~~10. Planting based on soil moisture,~~
~~11. Precision farming,~~
~~12. Reduced harvest activity,~~
~~13. Tillage based on soil moisture,~~
~~14. Timing of a tillage operation, or~~
~~15. Transgenic crops.~~

~~F. A commercial farmer shall implement at least one of the following best management practices to reduce PM10 emissions from noncropland:~~

~~1. Access restriction;~~
~~2. Aggregate cover;~~
~~3. Artificial wind barrier;~~
~~4. Critical area planting;~~
~~5. Manure application;~~
~~6. Reduce vehicle speed;~~
~~7. Synthetic particulate suppressant;~~
~~8. Track-out control system;~~
~~9. Tree, shrub, or windbreak planting; or~~
~~10. Watering.~~

~~G. A commercial farmer shall implement at least one of the following best management practices to reduce PM10 emissions from cropland:~~

~~1. Artificial wind barrier;~~
~~2. Cover crop;~~
~~3. Cross-wind ridges;~~
~~4. Cross-wind strip-cropping;~~
~~5. Cross-wind vegetative strips;~~

~~6. Manure application;~~
~~7. Mulching;~~
~~8. Multi-year crop;~~
~~9. Permanent cover;~~
~~10. Planting based on soil moisture;~~
~~11. Precision farming;~~
~~12. Residue management;~~
~~13. Sequential cropping;~~
~~14. Surface roughening; or~~
~~15. Tree, shrub, or windbreak planting.~~

~~H. A person may develop different practices not contained in subsections (E), (F), or (G) that reduce PM10. A person may submit practices that are proven effective through on-farm demonstration trials to the Director. The Director shall review the submitted practices.~~

~~I. A commercial farmer shall maintain records demonstrating compliance with this Section. The commercial farmer shall provide the records to the Director within two business days of written notice to the commercial farmer. The records shall contain:~~
~~1. The name of the commercial farmer,~~
~~2. The mailing address or physical location of the commercial farm, and~~
~~3. The best management practices selected for tillage and harvest, noncropland, and cropland by the commercial farmer, and the date each best management practice was implemented.~~

1. "Access restriction" means restricting or eliminating public access to noncropland with signs or physical obstruction.
2. "Aggregate cover" means gravel, concrete, recycled road base, caliche, or other similar material applied to noncropland.
3. "Artificial wind barrier" means a physical barrier to the wind.
4. "Bed row spacing" means increasing or decreasing the size of a planting bed area to reduce the number of passes and soil disturbance by increasing plant density.
5. "Best management practice" means a technique verified by scientific research, that on a case-by-case basis is practical, economically feasible, and effective in reducing PM10 emissions from a regulated agricultural activity.
6. "Chemical irrigation" means applying a fertilizer, pesticide, or other agricultural chemical to cropland through an irrigation system.
7. "Combining tractor operations" means performing two or more tillage, cultivation, planting, or harvesting operations with a single tractor or harvester pass.
8. "Commercial farm" means 10 or more contiguous acres of land used for agricultural purposes within the boundary of the Yuma PM10 nonattainment area.
9. "Commercial farmer" means an individual, entity, or joint operation in general control of a commercial farm.
10. "Conservation irrigation" means the use of drips, sprinklers, or underground lines to conserve water, and to reduce the weed population, the need for tillage, and soil compaction.
11. "Conservation tillage" means types of tillage that reduce the number of passes and the amount of soil disturbance.
12. "Cover crop" means plants or a green manure crop grown for seasonal soil protection or soil improvement.
13. "Critical area planting" means using trees, shrubs, vines, grasses, or other vegetative cover on noncropland.
14. "Cropland" means land on a commercial farm that:
    a. Is within the time-frame of final harvest to plant emergence;
    b. Has been tilled in a prior year and is suitable for crop production, but is currently fallow; or

c. Is a turn-row.
15. "Cross-wind ridges" means soil ridges formed by a tillage operation.
16. "Cross-wind strip-cropping" means planting strips of alternating crops within the same field.
17. "Cross-wind vegetative strips" means herbaceous cover established in one or more strips within the same field.
18. "Equipment modification" means modifying agricultural equipment to prevent or reduce particulate matter generation from cropland.
19. "Limited activity during a high-wind event" means performing no tillage or soil preparation activity when the measured wind speed at six feet in height is more than 25 mph at the commercial farm site.
20. "Manure application" means applying animal waste or biosolids to a soil surface.
21. "Mulching" means applying plant residue or other material that is not produced onsite to a soil surface.
22. "Multi-year crop" means a crop, pasture, or orchard that is grown, or will be grown, on a continuous basis for more than one year.
23. "Night farming" means performing regulated agricultural activities at night when moisture levels are higher and winds are lighter.
24. "Noncropland" means any commercial farmland that:
    a. Is no longer used for agricultural production;
    b. Is no longer suitable for production of crops;
    c. Is subject to a restrictive easement or contract that prohibits use for the production of crops; or
    d. Includes a private farm road, ditch, ditch bank, equipment yard, storage yard, or well head.
25. "Permanent cover" means a perennial vegetative cover on cropland.
26. "Planting based on soil moisture" means applying water to soil before performing planting operations.
27. "Precision farming" means use of satellite navigation to calculate position in the field, to reduce overlap during field operations, and allow operations to occur during nighttime and inclement weather, thus generating less PM10.
28. "Reduce vehicle speed" means operating farm vehicles or farm equipment on unpaved farm roads at speeds not to exceed 20 mph.
29. "Reduced harvest activity" means reducing the number of harvest passes using a mechanized method to cut and remove crops from a field.
30. "Regulated agricultural activity" means a commercial farming practice that may produce PM10 within the Yuma PM10 nonattainment area.
31. "Residue management" means managing the amount and distribution of crop and other plant residues on a soil surface.
32. "Sequential cropping" means growing crops in a sequence that minimizes the amount of time bare soil is exposed on a field.
33. "Surface roughening" means manipulating a soil surface to produce or maintain clods.
34. "Synthetic particulate suppressant" means a manufactured product such as lignosulfate, calcium chloride, magnesium chloride, and polyacrylamide, an emulsion of a petroleum product, and an enzyme product that is used to control particulate matter.
35. "Tillage and harvest" means any mechanical practice that physically disturbs cropland or crops on a commercial farm.
36. "Tillage based on soil moisture" means applying water to soil before or during tillage, or delaying tillage to coincide with precipitation.
37. "Timing of a tillage operation" means performing tillage operations at a time that will minimize the soil's susceptibility to generate PM10.
38. "Transgenic crops" means the use of genetically modified crops such as "herbicide ready" crops, which reduces the need for tillage or cultivation operations, and reduces soil disturbance.
39. "Track-out control system" means a device to remove mud or soil from a vehicle before the vehicle

enters a paved public road.
40. "Tree, shrub, or windbreak planting" means providing a woody vegetative barrier to the wind.
41. "Watering" means applying water to noncropland.
42. "Yuma PM10 nonattainment area" means the Yuma PM10 planning area as defined in 40 CFR 81.303, which is incorporated by reference in R18-2-210.

R18-2-613.01 Yuma PM10 Nonattainment Area; Agricultural Best Management Practices

A. A commercial farmer shall comply with this Section by August 1, 2005.
B. A commercial farmer who begins a regulated agricultural activity after August 1, 2005, shall comply with this Section within 60 days after beginning the regulated agricultural activity.
C. A commercial farmer shall implement at least one of the best management practices from each of the following categories at each commercial farm:
   1. Tillage and harvest, subsection (E);
   2. Noncropland, subsection (F); and
   3. Cropland, subsection (G).
D. A commercial farmer shall ensure that the implementation of each selected best management practice does not violate any other local, state, or federal law.
E. A commercial farmer shall implement at least one of the following best management practices to reduce PM10 emissions from tillage and harvest:
   1. Bed row spacing,
   2. Chemical irrigation,
   3. Combining tractor operations,
   4. Conservation irrigation,
   5. Conservation tillage,
   6. Equipment modification,
   7. Limited activity during a high-wind event,
   8. Multi-year crop,
   9. Night farming,
   10. Planting based on soil moisture,
   11. Precision farming,
   12. Reduced harvest activity,
   13. Tillage based on soil moisture,
   14. Timing of a tillage operation, or
   15. Transgenic crops.
F. A commercial farmer shall implement at least one of the following best management practices to reduce PM10 emissions from noncropland:
   1. Access restriction;
   2. Aggregate cover;
   3. Artificial wind barrier;
   4. Critical area planting;
   5. Manure application;
   6. Reduce vehicle speed;
   7. Synthetic particulate suppressant;
   8. Track-out control system;
   9. Tree, shrub, or windbreak planting; or
   10. Watering.
G. A commercial farmer shall implement at least one of the following best management practices to reduce PM10 emissions from cropland:
   1. Artificial wind barrier;
   2. Cover crop;

3. Cross-wind ridges;
4. Cross-wind strip-cropping;
5. Cross-wind vegetative strips;
6. Manure application;
7. Mulching;
8. Multi-year crop;
9. Permanent cover;
10. Planting based on soil moisture;
11. Precision farming;
12. Residue management;
13. Sequential cropping;
14. Surface roughening; or
15. Tree, shrub, or windbreak planting.

H. A person may develop different practices not contained in subsections (E), (F), or (G) that reduce PM10. A person may submit practices that are proven effective through on-farm demonstration trials to the Director. The Director shall review the submitted practices.

I. A commercial farmer shall maintain records demonstrating compliance with this Section. The commercial farmer shall provide the records to the Director within two business days of written notice to the commercial farmer. The records shall contain:
1. The name of the commercial farmer,
2. The mailing address or physical location of the commercial farm, and
3. The best management practices selected for tillage and harvest, noncropland, and cropland by the commercial farmer, and the date each best management practice was implemented.