

**REGULATION III - CONTROL OF AIR CONTAMINANTS**  
**RULE 316**  
**NONMETALLIC MINERAL PROCESSING**  
**INDEX**

**SECTION 100 - GENERAL**

- 101 PURPOSE
- 102 APPLICABILITY

**SECTION 200 - DEFINITIONS**

- 201 AFFECTED OPERATION
- 202 AGGREGATE TRUCK
- 203 APPROVED EMISSION CONTROL SYSTEM
- 204 AREA ACCESSIBLE TO THE PUBLIC
- 205 ASPHALTIC CONCRETE PLANT/ASPHALT PLANT
- 206 BAGGING OPERATION
- 207 BATCH TRUCK
- 208 BELT CONVEYOR
- 209 BERMS AND GUARD RAILS
- 210 BULK MATERIAL
- 211 COHESIVE HARD SURFACE
- 212 CONCRETE PLANT
- 213 CONVEYING SYSTEM
- 214 CRUSHER
- 215 DISTURBED SURFACE AREA
- 216 DRY MIX CONCRETE PLANT
- 217 DUST GENERATING OPERATION
- 218 DUST SUPPRESSANT
- 219 ENCLOSED TRUCK OR RAILCAR LOADING STATION
- 220 END OF WORK DAY
- 221 FABRIC FILTER BAGHOUSE
- 222 FREEBOARD
- 223 FUGITIVE DUST CONTROL MEASURE
- 224 FUGITIVE DUST CONTROL TECHNICIAN

225 FUGITIVE DUST EMISSION  
226 GRINDING MILL  
227 HAUL/ACCESS ROAD  
228 HAUL TRUCK  
229 INFREQUENT OPERATIONS  
230 MATERIAL DELIVERY TRUCK  
231 MIXER TRUCK  
232 MOTOR VEHICLE  
233 NEW FACILITY  
234 NONMETALLIC MINERAL  
235 NONMETALLIC MINERAL PROCESSING PLANT  
236 OPEN STORAGE PILE  
237 OVERBURDEN OPERATION  
238 PARTICULATE MATTER EMISSIONS  
239 PAVE  
240 PERMANENT AREAS OF A FACILITY  
241 PORTLAND CEMENT PLANT  
242 PRESSURE CONTROL SYSTEM  
243 PROCESS  
244 PROCESS SOURCE  
245 PRODUCTION WORK SHIFT  
246 PUBLIC ROADWAYS  
247 RETURNED PRODUCTS  
248 RUMBLE GRATE  
249 SCREENING OPERATION  
250 SILO  
251 SILT  
252 SPILLAGE  
253 STACK EMISSIONS  
254 STAGING AREA  
255 TEMPORARY FACILITY  
256 TRACKOUT  
257 TRACKOUT CONTROL DEVICE

- 258 TRANSFER POINT
- 259 TRUCK DUMPING
- 260 TRUCK WASHER
- 261 UNPAVED ROAD
- 262 VENT
- 263 WHEEL WASHER
- 264 WIND EVENT

### **SECTION 300 - STANDARDS**

- 301 CRUSHING AND SCREENING - PROCESS EMISSION LIMITATIONS AND CONTROLS
- 302 ASPHALTIC CONCRETE PLANTS - PROCESS EMISSION LIMITATIONS AND CONTROLS
- 303 RAW MATERIAL STORAGE AND DISTRIBUTION, CONCRETE PLANTS, AND/OR BAGGING OPERATIONS - PROCESS EMISSION LIMITATIONS AND CONTROLS
- 304 OTHER ASSOCIATED OPERATIONS
- 305 AIR POLLUTION CONTROL EQUIPMENT AND APPROVED EMISSION CONTROL SYSTEM (ECS)
- 306 FUGITIVE DUST EMISSION LIMITATIONS
- 307 FUGITIVE DUST CONTROL MEASURES
- 308 FACILITY INFORMATION SIGN
- 309 FUGITIVE DUST CONTROL TECHNICIAN
- 310 BASIC DUST CONTROL TRAINING CLASS
- 311 DUST CONTROL PLAN
- 312 GENERAL REQUIREMENTS

### **SECTION 400 - ADMINISTRATIVE REQUIREMENTS**

- 401 COMPLIANCE SCHEDULE

### **SECTION 500 - MONITORING AND RECORDS**

- 501 MONITORING, RECORDKEEPING AND REPORTING
- 502 COMPLIANCE DETERMINATION FOR PROCESS EMISSIONS AND CONTROLS

- 503 COMPLIANCE DETERMINATION FOR EMISSIONS AND CONTROLS THAT ARE REGULATED BY SECTION 304 AND/OR SECTION 306 OF THIS RULE
- 504 COMPLIANCE DETERMINATION FOR SOIL MOISTURE CONTENT AND SOIL COMPACTION CHARACTERISTICS TEST METHODS ADOPTED BY REFERENCE
- 505 COMPLIANCE DETERMINATION FOR STABILIZATION STANDARDS TEST METHODS ADOPTED BY REFERENCE
- 506 CERTIFIED STREET SWEEPERS EQUIPMENT LIST ADOPTED BY REFERENCE

Adopted 07/06/93  
Revised 04/21/99  
Revised 06/08/05  
Revised 03/12/08

**MARICOPA COUNTY  
AIR POLLUTION CONTROL REGULATIONS  
REGULATION III - CONTROL OF AIR CONTAMINANTS**

**RULE 316  
NONMETALLIC MINERAL PROCESSING**

**SECTION 100 - GENERAL**

**101 PURPOSE:** To limit the emission of particulate matter into the ambient air from any nonmetallic mineral processing plant and/or rock product processing plant.

**102 APPLICABILITY:** The provisions of this rule shall apply to any commercial and/or industrial nonmetallic mineral processing plant and/or rock product processing plant. Compliance with the provisions of this rule shall not relieve any person subject to the requirements of this rule from complying with any other federally enforceable New Source Performance Standards. In such case, the more stringent standard shall apply.

**SECTION 200 - DEFINITIONS:** See Rule 100 (General Provisions and Definitions) of these rules for definitions of terms that are used but not specifically defined in this rule. For the purpose of this rule, the following definitions shall apply:

**201 AFFECTED OPERATION -** An operation that processes nonmetallic minerals or that is related to such processing and process sources including, but not limited to, excavating, crushers, grinding mills, screening equipment, conveying systems, elevators, transfer points, bagging operations, storage bins, enclosed truck and railcar loading stations, and truck dumping.

**202 AGGREGATE TRUCK -** Any truck with an open top used to transport the products of nonmetallic mineral processing plants and/or rock product processing plants.

**203 APPROVED EMISSION CONTROL SYSTEM -** A system for reducing particulate emissions, consisting of collection and/or control devices which are approved in writing by the Control Officer and are designed and operated in accordance with good engineering practice.

**204 AREA ACCESSIBLE TO THE PUBLIC -** Any retail parking lot or public roadway that is open to public travel primarily for the purposes unrelated to the dust generating operation.

- 205 ASPHALTIC CONCRETE PLANT/ASPHALT PLANT** - Any facility used to manufacture asphaltic concrete by mixing graded aggregate and asphaltic cements.
- 206 BAGGING OPERATION** - The mechanical process by which bags are filled with nonmetallic minerals.
- 207 BATCH TRUCK** - Any truck that loads and transports products produced by batch.
- 208 BELT CONVEYOR** - A conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.
- 209 BERMS AND GUARD RAILS** - A pile or mound of material along an elevated roadway capable of moderating or limiting the force of a vehicle in order to impede the vehicle's passage over the bank of the roadway.
- 210 BULK MATERIAL** - Any material including, but not limited to, earth, rock, silt, sediment, sand, gravel, soil, fill, aggregate less than two inches in length or diameter (i.e., aggregate base course (ABC), dirt, mud, demolition debris, cotton, trash, cinders, pumice, saw dust, feeds, grains, fertilizers, fluff (from shredders), and dry concrete, that is capable of producing fugitive dust.
- 211 COHESIVE HARD SURFACE** - Any material including, but not limited to, pavement, recycled asphalt mixed with a binder, or a dust suppressant other than water applied and maintained as a roadway surface.
- 212 CONCRETE PLANT** - Any facility used to manufacture concrete by mixing water, aggregate, and cement.
- 213 CONVEYING SYSTEM** - A device for transporting materials from one piece of equipment or location to another location within a facility. Conveying systems include, but are not limited to, feeders, belt conveyers, bucket elevators and pressure control systems.
- 214 CRUSHER** - A machine used to crush any nonmetallic minerals including, but not limited to, the following types: jaw, gyratory, cone, roll, rod mill, hammermill, and impactor.
- 215 DISTURBED SURFACE AREA** - A portion of the earth's surface (or material placed thereupon) which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition, thereby increasing the potential for the emission of fugitive dust.
- 216 DRY MIX CONCRETE PLANT** - Any facility used to manufacture a mixture of aggregate and cements without the addition of water.

- 217 DUST GENERATING OPERATION** - Any activity capable of generating fugitive dust including, but not limited to, land clearing, earthmoving, weed abatement by discing or blading, excavating, construction, demolition, bulk material handling, storage and/or transporting operations, vehicle use and movement, the operation of any outdoor equipment, or unpaved parking lots. For the purpose of this rule, landscape maintenance and playing on or maintaining a field used for non-motorized sports shall not be considered a dust-generating operation. However, landscape maintenance shall not include grading, trenching, or any other mechanized surface disturbing activities performed to establish initial landscapes or to redesign existing landscapes.
- 218 DUST SUPPRESSANT** - Water, hygroscopic material, solution of water and chemical surfactant, foam, non-toxic chemical stabilizer, or any other dust palliative, which is not prohibited for ground surface application by the EPA or the Arizona Department of Environmental Quality (ADEQ), or any applicable law, rule, or regulation, as a treatment material for reducing fugitive dust emissions.
- 219 ENCLOSED TRUCK OR RAILCAR LOADING STATION** - That portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.
- 220 END OF WORK DAY** - The end of a working period that may include one or more work shifts. If working 24 hours a day, the end of a working period shall be considered no later than 8 pm.
- 221 FABRIC FILTER BAGHOUSE** - Tube-shaped filter bags - long small-diameter fabric tubes referred to as "bags" arranged in parallel flow paths and designed to separate particles and flue gas.
- 222 FREEBOARD** - The vertical distance between the top edge of a cargo container area and the highest point at which the bulk material contacts the sides, front, and back of a cargo container area.
- 223 FUGITIVE DUST CONTROL MEASURE** - A technique, practice, or procedure used to prevent or minimize the generation, emission, entrainment, suspension, and/or airborne transport of fugitive dust.
- 224 FUGITIVE DUST CONTROL TECHNICIAN** - A person with the authority to expeditiously employ sufficient fugitive dust control measures to ensure compliance with Rule 316 of these rules at an active operation.
- 225 FUGITIVE DUST EMISSION** - Particulate matter not collected by a capture system that is entrained in the ambient air and is caused from human and/or natural activities.
- 226 GRINDING MILL** - A machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: hammer,

roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.

- 227 HAUL/ACCESS ROAD** - Any on-site unpaved road that is used by haul trucks to carry materials from the quarry or pit to different locations within the facility. For the purpose of this definition, haul/access roads are not in permanent areas of a facility.
- 228 HAUL TRUCK** - Any fully or partially open-bodied self-propelled vehicle including any non-motorized attachments, such as but not limited to, trailers or other conveyances that are connected to or propelled by the actual motorized portion of the vehicle used for transporting bulk materials.
- 229 INFREQUENT OPERATIONS** - Operations that have State mine identification, approved reclamation plans and bonding as required by State Mining and Reclamation Act of 1975, and only operate on an average of 52 days per year over the past three years from June 8, 2005.
- 230 MATERIAL DELIVERY TRUCK** - Any truck that loads and transports product to customers.
- 231 MIXER TRUCK** - Any truck that mixes cement and other ingredients in a drum to produce concrete.
- 232 MOTOR VEHICLE** - A self-propelled vehicle for use on the public roads and highways of the State of Arizona and required to be registered under the Arizona State Uniform Motor Vehicle Act, including any non-motorized attachments, such as but not limited to, trailers or other conveyances which are connected to or propelled by the actual motorized portion of the vehicle.
- 233 NEW FACILITY** - A facility subject to this rule that has not been operated by such facility prior to June 8, 2005.
- 234 NONMETALLIC MINERAL** - Any of the following minerals or any mixture of which the majority is any of the following minerals:
- 234.1** Crushed and broken stone, including limestone, dolomite, granite, rhyolite, traprock, sandstone, quartz, quartzite, marl, marble, slate, shale, oil shale, and shell.
  - 234.2** Sand and gravel.
  - 234.3** Clay including kaolin, fireclay, bentonite, fuller's earth, ball clay, and common clay.
  - 234.4** Rock salt.



- 234.5 Gypsum.
  - 234.6 Sodium compounds including sodium carbonate, sodium chloride, and sodium sulfate.
  - 234.7 Pumice.
  - 234.8 Gilsonite.
  - 234.9 Talc and pyrophyllite.
  - 234.10 Boron including borax, kernite, and colemanite.
  - 234.11 Barite.
  - 234.12 Fluorspar.
  - 234.13 Feldspar.
  - 234.14 Diatomite.
  - 234.15 Perlite.
  - 234.16 Vermiculite.
  - 234.17 Mica.
  - 234.18 Kyanite including andalusite, sillimanite, topaz, and dumortierite.
  - 234.19 Coal.
- 235 NONMETALLIC MINERAL PROCESSING PLANT** - Any facility utilizing any combination of equipment or machinery that is used to mine, excavate, separate, combine, crush, or grind any nonmetallic mineral including, but not limited to, lime plants, coal fired power plants, steel mills, asphalt plants, concrete plants, Portland cement plants, raw material storage and distribution, and sand and gravel plants. Rock Product Processing Plants are included in this definition.
- 236 OPEN STORAGE PILE** - Any accumulation of bulk material with a 5% or greater silt content that has a total surface area of 150 square feet or more and that at any one point attains a height of three feet. Silt content shall be assumed to be 5% or greater unless a person can show, by testing in accordance with ASTM Method C136-06 or other equivalent method approved in writing by the Control Officer and the Administrator, that the silt content is less than 5%. For the purpose of this rule, the definition of open storage pile does not include berms and guard rails that are installed to comply with 30 Code of Federal Regulations (CFR) 56.93000.

- 237 OVERBURDEN OPERATION** - An operation that removes and/or strips soil, rock, or other materials that lie above a natural nonmetallic mineral deposit and/or in-between a natural nonmetallic mineral deposit.
- 238 PARTICULATE MATTER EMISSIONS** - Any and all finely divided solid or liquid materials other than uncombined water released to the ambient air as measured by the applicable state and federal test methods.
- 239 PAVE** - To apply and maintain asphalt, concrete, or other similar material to a roadway surface (i.e., asphaltic concrete, concrete pavement, chip seal, rubberized asphalt, or recycled asphalt mixed with a binder).
- 240 PERMANENT AREAS OF A FACILITY** - Areas that remain in-place for 180 days or more in 12 consecutive months. Permanent areas of a facility include the following areas: entrances, exits, parking areas, office areas, warehouse areas, maintenance areas (not including maintenance areas that are in the quarry or pit), concrete plant areas, asphaltic plant areas, and roads leading to and from such areas.
- 241 PORTLAND CEMENT PLANT** - Any facility that manufactures Portland Cement using either a wet or dry process.
- 242 PRESSURE CONTROL SYSTEM** - System in which loads are moved in the proper sequence, at the correct time, and at the desired speed through use of valves that control the direction of air flow, regulate actuator speed, and respond to changes in air pressure.
- 243 PROCESS** - One or more operations including those using equipment and technology in the production of goods or services or the control of by-products or waste.
- 244 PROCESS SOURCE** - The last operation of a process or a distinctly separate process which produces an air contaminant and which is not a pollution abatement operation.
- 245 PRODUCTION WORK SHIFT** - An eight hour operating period based on the 24-hour operating schedule.
- 246 PUBLIC ROADWAYS** - Any roadways that are open to public travel.
- 247 RETURNED PRODUCTS** - Left-over concrete or asphalt products that were not used at a job site and were returned to the facility.
- 248 RUMBLE GRATE** - A system where the vehicle is vibrated while traveling over grates with the purpose of removing dust and other debris.
- 249 SCREENING OPERATION** - A device that separates material according to its size by passing undersize material through one or more mesh surfaces (screens) in series and retaining oversize material on the mesh surfaces (screens).

- 250 SILO** - An elevated storage container with or without a top that releases material thru the bottom.
- 251 SILT** - Any aggregate material with a particle size less than 75 micrometers in diameter, which passes through a No. 200 Sieve.
- 252 SPILLAGE** - Any quantity of nonmetallic minerals/materials that spill while being processed or after having been processed by an affected operation, where such spilled nonmetallic minerals/ materials can generate or cause fugitive dust emissions.
- 253 STACK EMISSIONS** - The particulate matter emissions that are released to the atmosphere from a capture system through a building vent, stack or other point source discharge.
- 254 STAGING AREA** - A place where aggregate trucks and mixer trucks temporarily queue for their loading or unloading.
- 255 TEMPORARY FACILITY** - A facility that occupies a designated site for not more than 180 days in a calendar year.
- 256 TRACKOUT** - Any and all bulk materials that adhere to and agglomerate on the surfaces of motor vehicles, haul trucks, and/or equipment (including tires) and that have fallen or been deposited onto a paved area accessible to the public.
- 257 TRACKOUT CONTROL DEVICE** - A gravel pad, grizzly, wheel washer, rumble grate, paved area, truck washer, or other equivalent trackout control device located at the point of intersection of an unpaved area and a paved area accessible to the public that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of aggregate trucks, haul trucks, and/or motor vehicles that traverse a facility.
- 258 TRANSFER POINT** - A point in a conveying operation where nonmetallic mineral is transferred from or to a belt conveyor except for transfer to a stockpile.
- 259 TRUCK DUMPING** - The unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include, but are not limited to, trucks, front end loaders, skip hoists, and railcars.
- 260 TRUCK WASHER** - A system that is used to wash the entire surface and the tires of a truck.
- 261 UNPAVED ROAD** - Any roads, equipment paths, or travel ways that are not covered by typical roadway materials. Public unpaved roads are any unpaved roadway owned by Federal, State, county, municipal, or governmental or quasigovernmental agencies. Private unpaved roads are all other unpaved roadways not defined as public.

- 262 VENT** - An opening through which there is mechanically or naturally induced air flow for the purpose of exhausting air carrying particulate matter.
- 263 WHEEL WASHER** - A system that is capable of washing the entire circumference of each wheel of the vehicle.
- 264 WIND EVENT** - When the 60-minute average wind speed is greater than 25 miles per hour.

## **SECTION 300 - STANDARDS**

### **301 CRUSHING AND SCREENING - PROCESS EMISSION LIMITATIONS AND CONTROLS:**

**301.1 Process Emission Limitations:** The owner and/or operator shall not discharge or cause or allow to be discharged into the ambient air:

- a.** Stack emissions exceeding 7% opacity and containing more than 0.02 grains/dry standard cubic foot (gr/dscf) (50 mg/dscm) of particulate matter.
- b.** Fugitive dust emissions exceeding 7% opacity from any transfer point on a conveying system.
- c.** Fugitive dust emissions exceeding 15% opacity from any crusher.
- d.** Fugitive dust emissions exceeding 10% opacity from any affected operation or process source, excluding truck dumping.
- e.** Fugitive dust emissions exceeding 20% opacity from truck dumping directly into any screening operation, feed hopper, or crusher. Opacity observations to determine compliance with this section of this rule shall be conducted in accordance with the techniques specified in Appendix C- Fugitive Dust Test Methods of these rules.

**301.2 Controls:** The owner and/or operator shall implement process controls described in Section 301.2(a), Section 301.2(b), and Section 301.2(c) of this rule or shall implement process controls described in Section 301.2(a) and Section 301.2(d) of this rule:

- a.** Enclose sides of all shaker screens.

- b.** Permanently mount watering systems (e.g., spray bars or an equivalent control) on the points listed below for crushers, shaker screens, and material transfer points.
  - (1)** Inlet and outlet of all crushers;
  - (2)** Outlet of all shaker screens; and
  - (3)** Outlet of all material transfer points, excluding wet plants.
  
- c.** Operate watering systems (e.g., spray bars or an equivalent control) on the points listed in Section 301.2(b) of this rule for crushers, shaker screens, and material transfer points, excluding wet plants, to continuously maintain a 4% minimum moisture content.
  - (1)** The watering systems shall be maintained in good operating condition, as verified by daily inspections.
  - (2)** The owner and/or operator shall investigate and correct any problems before continuing and/or resuming operations.
  - (3)** The owner and/or operator shall conduct soil moisture tests as follows:
    - (a)** If the owner and/or operator is required to have in place a Fugitive Dust Control Technician according to Section 309 of this rule, then soil moisture tests shall be conducted twice daily in accordance with the test methods described in Section 502 of this rule.
    - (b)** If the owner and/or operator is not required to have in place a Fugitive Dust Control Technician according to Section 309 of this rule, then soil moisture tests shall be conducted daily in accordance with the test methods described in Section 502 of this rule.
    - (c)** If the owner and/or operator demonstrates that the 4% minimum moisture content is maintained for a minimum of four weeks, then soil moisture tests may be conducted weekly in accordance with the test methods described in Section 502 of this rule.
    - (d)** If the owner and/or operator fails to comply with the opacity limitations described in Section 301.1, Section 306.1, or Section 306.2 of this rule and/or if two consecutive soil moisture tests are below 4%, then the owner and/or operator shall conduct soil moisture tests in

accordance with Section 301.2(c)(3)(a) or Section 301.2(c)(3)(b) of this rule, as applicable.

- (e) If the owner and/or operator of a facility complies with both of the following requirements, then the number of sampling points identified in Section 502.3(c)(1) through (3) of this rule may be reduced:
  - (i) A soil moisture test is conducted in accordance with the test methods described in Section 502 of this rule at the primary crusher, which indicates that at least a 5% minimum moisture content is maintained; and
  - (ii) A demonstration that complies with Section 502.3(d) of this rule is submitted to and approved by the Control Officer and is complied with in accordance with Section 502.3(d) of this rule.

(4) The owner and/or operator may request in a permit application, with explanation, an alternative plan that justifies a minimum moisture content other than 4% and that justifies conducting fewer soil moisture tests as are required. In the request, the owner and/or operator shall submit to the Control Officer documentation regarding a minimum moisture content other than 4%, including, but not limited to, economics, emissions rates, water availability, and technical feasibility. In addition, the owner and/or operator shall demonstrate that the proposed alternative compliance demonstration plan will be equivalent in determining compliance with the soil moisture content requirements. Prior approval from the Control Officer and the Administrator shall be received before implementing the plan.

- d. Enclose and exhaust the regulated process to a properly sized fabric filter baghouse.

## **302 ASPHALTIC CONCRETE PLANTS - PROCESS EMISSION LIMITATIONS AND CONTROLS:**

**302.1 Process Emission Limitations:** The owner and/or operator shall not discharge or cause or allow to be discharged into the ambient air:

- a. For non-rubberized asphaltic concrete plants, stack emissions exceeding 5% opacity and containing more than 0.04 gr/dscf (90 mg mg/dscm) of particulate matter.

- b. For rubberized asphaltic concrete plants (when producing rubberized asphalt only), stack emissions exceeding 20% opacity and containing more than 0.04 gr/dscf (90 mg/dscm) of particulate matter.
- c. Fugitive dust emissions exceeding 10% opacity from any affected operation or process source, excluding truck dumping.

**302.2 Controls:** The owner and/or operator shall, from all drum dryers, control and vent exhaust to a properly sized fabric filter baghouse.

**303 RAW MATERIAL STORAGE AND DISTRIBUTION, CONCRETE PLANTS, AND/OR BAGGING OPERATIONS - PROCESS EMISSION LIMITATIONS AND CONTROLS:**

**303.1 Process Emission Limitations:** The owner and/or operator shall not discharge or cause or allow to be discharged into the ambient air:

- a. Stack emissions exceeding 5% opacity.
- b. Fugitive dust emissions exceeding 10% opacity from any affected operation or process source, excluding truck dumping.

**303.2 Controls:** The owner and/or operator shall implement the following process controls:

- a. On all cement, lime, and/or fly-ash storage silo(s), install an operational overflow warning system/device. The system/device shall be designed to alert operator(s) to stop the loading operation when the cement, lime, and/or fly-ash storage silo(s) are reaching a capacity that could adversely impact pollution abatement equipment.
- b. On new cement, lime, and/or fly-ash storage silos, install a properly sized fabric filter baghouse or equivalent device designed to meet a maximum outlet grain loading of 0.01 gr/dscf.
- c. On dry mix concrete plant loading stations/truck mixed product, implement one of the following process controls:
  - (1) Install a rubber fill tube;
  - (2) Install a water spray;
  - (3) Install a properly sized fabric filter baghouse or delivery system;
  - (4) Enclose mixer loading stations such that no visible emissions occur; or

(5) Conduct mixer loading stations in an enclosed process building such that no visible emissions from the building occur during the mixing activities.

d. On cement silo filling processing/loading operations controls, install a pressure control system designed to shut-off cement silo filling processes/loading operations, if pressure from delivery truck is excessive, as defined in O&M Plan.

**304 OTHER ASSOCIATED OPERATIONS:** All other affected operations or process sources not specifically listed in Sections 301, 302, or 303 of this rule associated with the processing of nonmetallic minerals, all other fugitive dust emission limitations not specifically listed in Section 306 of this rule, all other fugitive dust control measures not specifically listed in Section 307 of this rule, and all overburden operations shall, at a minimum, meet the provisions of Rule 310 of these rules.

**305 AIR POLLUTION CONTROL EQUIPMENT AND APPROVED EMISSION CONTROL SYSTEM (ECS):** An owner and/or operator of a facility shall provide, properly install and maintain in calibration, in good working order, and in operation air pollution control equipment required by this rule. When selecting air pollution control equipment required by this rule, the owner and/or operator of a facility may consider the site-specific and/or material-specific conditions and logistics of a facility. When doing so, some air pollution control equipment may be more reasonable to implement than others. Regardless, any air pollution control equipment that is installed must achieve the applicable standard(s) required by this rule, as determined by the corresponding test method(s), as applicable, and must achieve other applicable standard(s) set forth in this rule. The owner and/or operator of a facility may submit a request to the Control Officer and the Administrator for the use of alternative air pollution control equipment. The request shall include the proposed alternative air pollution control equipment, the air pollution control equipment that the alternative would replace, and a detailed statement or report demonstrating that the air pollution control equipment would result in equivalent or better emission control than the equipment prescribed in this rule. Nothing in this rule shall be construed to prevent an owner and/or operator of a facility from making such demonstration. Following a decision by the Control Officer and the Administrator to grant the petition, the facility shall incorporate the alternative air pollution control equipment in any required Operation and Maintenance (O&M) Plan.

**305.1 Operation and Maintenance (O&M) Plan Requirements for ECS:**

a. An owner and/or operator of a facility shall provide and maintain, readily available on-site at all times, (an) O&M Plan(s) for any ECS, any other emission processing equipment, and any ECS monitoring devices that are used pursuant to this rule or to an air pollution control permit.



- b. The owner and/or operator of a facility shall submit to the Control Officer for approval the O&M Plan(s) for each ECS and for each ECS monitoring device that is used pursuant to this rule.
- c. The owner and/or operator of a facility shall comply with all the identified actions and schedules provided in each O&M Plan.

**305.2 Operation and Maintenance (O&M) Plan Requirements for Dust Control Measures:**

- a. An owner and/or operator of a facility shall provide and maintain, readily available on-site at all times, (an) O&M Plan(s) for equipment associated with any process fugitive emissions and fugitive dust control measures (i.e., gravel pads, wheel washers, truck washers, rumble grates, watering systems, and street sweepers) that are implemented to comply with this rule or an air pollution control permit.
- b. The owner and/or operator of a facility shall comply with all the identified actions and schedules provided in each O&M Plan.

**305.3 Providing And Maintaining ECS Monitoring Devices:** An owner and/or operator of a facility operating an ECS pursuant to this rule shall install, maintain, and calibrate monitoring devices described in the O&M Plan(s). The monitoring devices shall measure pressures, rates of flow, and/or other operating conditions necessary to determine if the control devices are functioning properly.

**305.4 O&M Plan Responsibility:** An owner and/or operator of a facility that is required to have an O&M Plan pursuant to Section 305 of this rule must fully comply with all O&M Plans that the owner and/or operator has submitted for approval, even if such O&M Plans have not yet been approved, unless notified in writing by the Control Officer.

**306 FUGITIVE DUST EMISSION LIMITATIONS:**

**306.1 20% Opacity Limitation:** For emissions that are not already regulated by an opacity limit, the owner and/or operator of a facility shall not discharge or cause or allow to be discharged into the ambient air fugitive dust emissions exceeding 20% opacity, in accordance with the test methods described in Section 503 of this rule and in Appendix C-Fugitive Dust Test Methods of these rules.

**306.2 Visible Emission Limitation Beyond Property Line:** An owner and/or operator of a facility shall not cause or allow fugitive dust emissions from any active operation, open storage pile, or disturbed surface area associated with such facility such that the presence of such fugitive dust emissions remain visible in the atmosphere beyond the property line of such facility.

**306.3 Wind Event:** The fugitive dust emission limitations described in Section 306.1 and Section 306.2 of this rule shall not apply during a wind event, if the owner and/or operator of a facility meets the following conditions:

- a.** Has implemented the fugitive dust control measures described in Section 307 of this rule, as applicable;
- b.** Has compiled and retained records, in accordance with Section 501.4 of this rule, and has documented by records the occurrence of a wind event on the day(s) in question. The occurrence of a wind event must be determined by the nearest Maricopa County Air Quality Department monitoring station, from any other certified meteorological station, or by a wind instrument that is calibrated according to manufacturer's standards and that is located at the site being checked; and
- c.** Has implemented the following high wind fugitive dust control measures, as applicable:
  - (1)** For an active operation, implement one of the following fugitive dust control measures, in accordance with the test methods described in Section 503 and Section 504 of this rule and in Appendix C-Fugitive Dust Test Methods of these rules:
    - (a)** Cease active operation that may contribute to an exceedance of the fugitive dust emission limitations described in Section 306.1 of this rule for the duration of the wind event and, if active operation is ceased for the remainder of the work day, stabilize the area; or
    - (b)** Before and during active operations, apply water or other suitable dust suppressant other than water to keep the soil visibly moist.
  - (2)** For an inactive open storage pile, implement one of the following fugitive dust control measures, in accordance with the test methods described in Section 503 and Section 504 of this rule and in Appendix C-Fugitive Dust Test Methods of these rules:
    - (a)** Maintain a soil crust by applying water or other suitable dust suppressant other than water or by implementing another fugitive dust control measure, in sufficient quantities to meet the stabilization standards described in Section 505 of this rule.

- (b) Cover open storage pile with tarps, plastic, or other material such that wind will not remove the covering, if open storage pile is less than eight feet high.
- (3) For an inactive disturbed surface area, implement one of the following fugitive dust control measures, in accordance with the test methods described in Section 503 and Section 504 of this rule and in Appendix C-Fugitive Dust Test Methods of these rules:
  - (a) Uniformly apply and maintain surface gravel or a dust suppressant other than water; or
  - (b) Maintain a soil crust by applying water or other suitable dust suppressant other than water or by implementing another fugitive dust control measure, in sufficient quantities to meet the stabilization standards described in Section 505 of this rule.

**306.4 Silt Loading And Silt Content Standards For Unpaved Roads And Unpaved Parking And Staging Areas:** From unpaved roads and unpaved parking and staging areas, the owner and/or operator of a facility shall not discharge or allow to be discharged into the ambient air fugitive dust emissions exceeding 20% opacity, in accordance with the test methods described in Section 502 of this rule and in Appendix C-Fugitive Dust Test Methods of these rules, and one of the following:

- a. For unpaved roads, silt loading equal to or greater than 0.33 oz/ft<sup>2</sup> or silt content exceeding 6%.
- b. For unpaved parking and staging areas, silt loading equal to or greater than 0.33 oz/ft<sup>2</sup> or silt content exceeding 8%.

**306.5 Stabilization Standards:**

- a. An owner and/or operator of a facility with an open area or a disturbed surface area on which no activity is occurring (including areas that are temporarily or permanently inactive) shall be considered in violation of this rule if area is not maintained in a manner that meets at least one of the standards listed below, as applicable.
  - (1) Maintain a soil crust;
  - (2) Maintain a threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 cm/second or higher;

- (3) Maintain a flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%;
- (4) Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%;
- (5) Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements;
- (6) Maintain a percent cover that is equal to or greater than 10% for non-erodible elements; or
- (7) Comply with a standard of an alternative test method, upon obtaining the written approval from the Control Officer and the Administrator.

- b. If no activity is occurring on an open storage pile and material handling or surface soils where support equipment and vehicles operate in association with such facility and if an open storage pile and material handling or surface soils where support equipment and vehicles operate in association with such facility contain more than one type of visibly distinguishable stabilization characteristics, soil, vegetation, or other characteristics, which are visibly distinguishable, the owner and/or operator shall test each representative surface separately for stability, in an area that represents a random portion of the overall disturbed conditions of the site, in accordance with the appropriate test methods described in Section 505 of this rule and in Appendix C-Fugitive Dust Test Methods of these rules.

**307 FUGITIVE DUST CONTROL MEASURES:** The owner and/or operator of a nonmetallic mineral processing plant and/or a rock product processing plant shall implement the fugitive dust control measures described in this section of this rule. When selecting a fugitive dust control measure(s), the owner and/or operator of a facility may consider the site-specific and/or material-specific conditions and logistics of a facility. When doing so, some fugitive dust control measures may be more reasonable to implement than others. Regardless, any fugitive dust control measure that is implemented must achieve the applicable standard(s) described in Section 306 of this rule, as determined by the corresponding test method(s), as applicable, and must achieve other applicable standard(s) set forth in this rule. The owner and/or operator of a facility may submit a request to the Control Officer and the Administrator for the use of alternative control measure(s). The request shall include the proposed alternative control measure,

the control measure that the alternative would replace, and a detailed statement or report demonstrating that the measure would result in equivalent or better emission control than the measures prescribed in this rule. Nothing in this rule shall be construed to prevent an owner and/or operator of a facility from making such demonstration. Following a decision by the Control Officer and the Administrator to grant the petition, the facility shall incorporate the alternative control measure in any required Dust Control Plan. When engaged in the activities described in Section 301 and Section 307.1 through Section 307.9 of this rule, the owner and/or operator of a facility shall install, maintain, and use fugitive dust control measures as described in Section 307.1 through Section 307.9 of this rule, as applicable.

**307.1 Open Storage Piles and Material Handling:** The owner and/or operator of a facility shall implement all of the following fugitive dust control measures, as applicable. For the purpose of this rule, open storage pile(s) and material handling does not include berms and guard rails that are installed to comply with 30 CFR 56.93000. However, such berms and guard rails shall be installed and maintained in compliance with Section 306.1, Section 306.2, and Section 306.5 of this rule.

- a. Prior to, and/or while conducting loading and unloading operations, implement one of the following fugitive dust control measures:
  - (1) Spray material with water, as necessary; or
  - (2) Spray material with a dust suppressant other than water, as necessary.
  
- b. When not conducting loading and unloading operations, implement one of the following fugitive dust control measures:
  - (1) Spray material with water, as necessary;
  - (2) Maintain a 1.5% or more soil moisture content of the open storage pile(s);
  - (3) Locate open storage pile(s) in a pit/in the bottom of a pit;
  - (4) Arrange open storage pile(s) such that storage pile(s) of larger diameter products are on the perimeter and act as barriers to/for open storage pile(s) that could create fugitive dust emissions;
  - (5) Construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%; or

- (6) Cover open storage piles with tarps, plastic, or other material to prevent wind from removing the coverings.
- c. When installing new open storage pile(s) at an existing facility and/or when installing new open storage pile(s) at a new facility, the owner and/or operator shall implement all of the following fugitive dust control measures, only if it is determined to be feasible on a case-by-case basis through the Dust Control Plan by assessing the amount of open land available at the property at the time the new open storage pile(s) are formed:
  - (1) Install the open storage pile(s) at least 25 feet from the property line; and
  - (2) Limit the height of the open storage pile(s) to less than 45 feet.
- d. For existing open storage pile(s) and when installing open storage pile(s) for an existing facility or for a new facility, if such open storage pile(s) will be constructed over eight feet high and will not be covered, then the owner and/or operator shall install, use, and maintain a water truck or other method that is capable of completely wetting the surfaces of open storage pile(s).

**307.2 Surface Stabilization Where Support Equipment And Vehicles Operate:** The owner and/or operator of a facility shall implement one of the following fugitive dust control measures on areas other than the areas identified in Section 307.3 and Section 307.4 of this rule where loaders, support equipment, and vehicles operate.

- a. Apply and maintain water;
- b. Apply and maintain a dust suppressant, other than water; or
- c. Apply a gravel pad, in compliance with Section 307.6(b)(4) of this rule.

**307.3 Haul/Access Roads That Are Not In Permanent Areas of a Facility:**

- a. The owner and/or operator of a facility shall implement one of the following fugitive dust control measures, as applicable, before engaging in the use of, or in the maintenance of, haul/access roads. Compliance with the provisions of this section of this rule shall not relieve any person subject to the requirements of this section of this rule from complying with any other federally enforceable requirements (i.e., a permit issued under Section 404 of the Clean Water Act).
  - (1) Install and maintain bumps, humps, or dips for speed control and apply water, as necessary;

- (2) Limit vehicle speeds and apply water, as necessary;
  - (3) Pave;
  - (4) Apply and maintain a gravel pad in compliance with Section 307.6(b)(4) of this rule;
  - (5) Apply a dust suppressant, other than water; or
  - (6) Install and maintain a cohesive hard surface.
- b.** For a new facility, if it is determined that none of the fugitive dust control measures described in Section 307.3(a) of this rule can be technically and feasibly implemented, then the owner and/or operator of a new facility shall maintain a minimum distance of 25 feet from the property line for haul/access roads associated with the new facility. Such determination shall be made and approved in writing by the Control Officer and the Administrator and shall be approved in the Dust Control Plan.

**307.4 On-Site Traffic:**

- a.** The owner and/or operator of a facility shall require all batch trucks and material delivery trucks to remain on roads with paved surfaces or cohesive hard surfaces.
- b.** The owner and/or operator of a facility shall require all aggregate trucks to remain on paved surfaces or cohesive hard surfaces, except when driving on roads leading to and from aggregate loading areas/loading operations, as approved in the Dust Control Plan.
- c.** The owner and/or operator of a facility shall require all batch trucks and material delivery trucks to enter and exit the facility/operation only through entrances that comply with the trackout requirements in Section 307.6 of this rule.
- d.** The owner and/or operator of a facility shall pave or install a cohesive hard surface on permanent areas of a facility on which vehicles drive, as approved in the Dust Control Plan.

**307.5 Off-Site Traffic:** When hauling and/or transporting bulk material off-site, the owner and/or operator of a facility shall implement all of the following control measures:

- a.** Load all haul trucks such that the freeboard is not less than three inches;

- b. Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and
- c. Cover haul trucks with a tarp or other suitable closure.

### **307.6 Trackout:**

- a. **Rumble Grate And Wheel Washer:** The owner and/or operator of a new permanent facility and the owner and/or operator of an existing permanent facility with a minimum of 60 aggregate trucks, mixer trucks, and/or batch trucks exiting a facility on any day onto paved public roadways/paved areas accessible to the public shall install, maintain, and use a rumble grate and wheel washer, in accordance with all of the following conditions, as applicable. For the purpose of this rule, a vehicle wash and/or a cosmetic wash may be substituted for a wheel washer, provided such vehicle wash and/or cosmetic wash has at least 40 pounds per square inch (psi) water spray from the nozzle (owner and/or operator of the facility shall have a water pressure gauge available on-site to allow verification of such water pressure), meets the definition of wheel washer (i.e., is capable of washing the entire circumference of each wheel of the vehicle), is operated in such a way that visible deposits are removed from the entire circumference of each wheel of the vehicle exiting the wash, is installed, maintained, and used in accordance with criteria in Section 307.6(a)(1)-(5) of this rule, and is approved in the Dust Control Plan for the facility.

- (1) The owner and/or operator of a facility shall locate a rumble grate within 10 feet from a wheel washer.
  - (a) The rumble grate and wheel washer shall be located no less than 30 feet prior to each exit that leads to a paved public roadway/paved area accessible to the public and that is used by aggregate trucks, mixer trucks, and/or batch trucks.
  - (b) The owner and/or operator of a facility may be allowed to install a rumble grate and wheel washer less than 30 feet prior to each exit if the owner and/or operator of a facility can demonstrate to the Control Officer that there is not adequate space to install a rumble grate and wheel washer no less than 30 feet prior to each exit and that a rumble grate and wheel washer at a shorter distance will be adequate to prevent trackout.
  - (c) A rumble grate shall consist of raised dividers (rails, pipes, or grates) a minimum of three inches tall, six inches apart, and 20 feet long, to allow a vibration to be produced such that dust is shaken off the wheels of a vehicle as the entire



circumference of each wheel of the vehicle passes over the rumble grate.

- (2) The owner and/or operator of a facility shall ensure that all aggregate trucks, mixer trucks, and/or batch trucks exit the facility via the rumble grate first and then the wheel washer.
- (3) The owner and/or operator of a facility shall post a sign by the rumble grate and wheel washer to designate the speed limit as 5 miles per hour.
- (4) The owner and/or operator of a facility shall pave the roads from the rumble grate and wheel washer to the facility exits leading to paved public roadways/paved areas accessible to the public.
- (5) The owner and/or operator of a facility shall ensure that all aggregate trucks, mixer trucks, and/or batch trucks remain on the paved roads between the rumble grate and wheel washer and the facility exits leading to paved public roadways/paved areas accessible to the public.

**b. Rumble Grate, Wheel Washer, Or Truck Washer:** The owner and/or operator of a facility not subject to Section 307.6(a) of this rule shall install, maintain, and use a rumble grate, wheel washer, or truck washer in accordance with all of the following:

- (1) A rumble grate, wheel washer, or truck washer shall be located no less than 30 feet prior to each exit that leads to a paved public roadway/paved area accessible to the public and that is used by aggregate trucks, mixer trucks, and/or batch trucks.
  - (a) The owner and/or operator of a facility may be allowed to install a rumble grate, wheel washer, or truck washer less than 30 feet prior to each exit if the owner and/or operator of a facility can demonstrate to the Control Officer that there is not adequate space to install a rumble grate, wheel washer, or truck washer no less than 30 feet prior to each exit and that a rumble grate, wheel washer, or truck washer at a shorter distance will be adequate to prevent trackout.
  - (b) A rumble grate shall consist of raised dividers (rails, pipes, or grates) a minimum of three inches tall, six inches apart, and 20 feet long, to allow a vibration to be produced such that dust is shaken off the wheels of a vehicle as the entire

circumference of each wheel of the vehicle passes over the rumble grate.

- (2) The owner and/or operator of a facility shall ensure that all aggregate trucks, mixer trucks, and/or batch trucks exit the facility via a rumble grate, wheel washer, or truck washer.
- (3) The owner and/or operator of a facility shall post a sign by the rumble grate, wheel washer, or truck washer to designate the speed limit as 5 miles per hour.
- (4) If haul/access roads are unpaved between the rumble grate, wheel washer, or truck washer and the facility exits leading to paved public roadways/paved areas accessible to the public, a gravel pad shall be installed, maintained, and used from the rumble grate, wheel washer, or truck washer to such paved public roadways/paved areas accessible to the public in accordance with all of the following:
  - (a) Gravel pad shall be designed with a layer of washed gravel, rock, or crushed rock that is at least one inch or larger in diameter and 6 inches deep, 30 feet wide, and 50 feet long and shall be flushed with water or completely replaced as necessary to comply with the trackout threshold described in Section 307.6(d) of this rule.
  - (b) Gravel pad shall have a gravel pad stabilizing mechanism/device (i.e., curbs or structural devices along the perimeter of the gravel pad) and shall be flushed with water or completely replaced as necessary to comply with the trackout threshold described in Section 307.6(d) of this rule.

**c. Exemptions for Wheel Washers:** The owner and/or operator of a facility shall not be required to install, maintain, and use a wheel washer, if any one of the following are applicable:

- (1) A facility has all paved roads and meters aggregate or related materials directly to a ready-mix or hot mix asphalt truck, with the exception of returned products. The owner and/or operator of the facility shall install, maintain, and use a rumble grate in compliance with Section 307.6(b) of this rule.
- (2) A facility is less than 5 acres in land size and handles recycled asphalt and recycled concrete exclusively. The owner and/or operator of the facility shall install, maintain, and use a rumble

grate in compliance with Section 307.6(b) of this rule and shall install a gravel pad in compliance with Section 307.6(b)(4) of this rule on all unpaved roads leading to the facility exits leading to paved public roadways/paved areas accessible to the public.

- (3) A facility has a minimum of ¼ mile paved roads leading from a rumble grate to the facility exits leading to paved public roadways/paved areas accessible to the public.
- (4) A facility meets the definition of infrequent operations, as defined in Section 229 of this rule. The owner and/or operator of the facility shall install, maintain, and use a rumble grate in compliance with Section 307.6(b) of this rule and shall install a gravel pad in compliance with Section 307.6(b)(4) of this rule. The gravel pad shall be installed for a distance of no less than 100 feet from the rumble grate to the facility exits leading to paved public roadways/paved areas accessible to the public. The owner and/or operator of the facility shall keep records in accordance with Section 500 of this rule, as applicable. The owner and/or operator of the facility shall notify the Control Officer in the event that the facility will operate more than 52 days per year based on the average rolling 3-year period after June 8, 2005 and the owner and/or operator of the facility shall comply with Section 307.6 of this rule, as applicable.

**d. Trackout Distance:** An owner and/or operator of a facility shall not allow trackout to extend a cumulative distance of 25 linear feet or more from all facility exits onto paved areas accessible to the public. Notwithstanding the proceeding, the owner and/or operator of a facility shall clean up all other trackout at the end of the workday.

**e. Cleaning Paved Roads Identified In The Dust Control Plan:** The owner and/or operator of a facility shall clean all paved roads identified in the Dust Control Plan for a facility in accordance with all of the following as applicable:

- (1) The owner and/or operator of a facility with a minimum of 60 aggregate trucks, mixer trucks, and/or batch trucks exiting the facility on any day shall sweep the paved roads with a street sweeper by the end of each production work shift, if there is evidence of dirt and/or other bulk material extending a cumulative distance of 12 linear feet or more on any paved road.
- (2) The owner and/or operator of a facility with less than 60 aggregate trucks, mixer trucks, and/or batch trucks exiting the facility on any day shall sweep the paved roads with a street sweeper by the end

of every other work day. On the days that paved roads are not swept, the owner and/or operator of a facility shall apply water on at least 100 feet of paved roads or the entire length of paved roads leading to an exit to paved public roadways/paved areas accessible to the public, if such roadways are less than 100 feet long.

- (3) The owner and/or operator of a facility, who purchases street sweepers after June 8, 2005, shall purchase street sweepers that meet the criteria of PM<sub>10</sub>-efficient South Coast Air Quality Management Rule 1186 certified street sweepers.
- (4) The owner and/or operator of a new facility shall use South Coast Air Quality Management Rule 1186 certified street sweepers to sweep paved roads.

**307.7 Pad Construction For Processing Equipment:** The owner and/or operator of a facility shall implement, maintain, and use fugitive dust control measures during the construction of pads for processing equipment, so as to meet all of the applicable requirements in this rule, and shall identify, in the Dust Control Plan, such fugitive dust control measures.

**307.8 Spillage:** In addition to complying with the fugitive dust emission limitations described in Section 306 of this rule and implementing fugitive dust control measures described in Section 307.1 through Section 307.9 of this rule, as applicable, the owner and/or operator of a facility shall implement the following fugitive dust control measures, as applicable, when spillage occurs:

- a. Promptly remove any pile of spillage on paved haul/access roads/paved roads; or
- b. Maintain in a stabilized condition any pile of spillage on paved haul/access roads/paved roads and remove such pile by the end of each day; and
- c. Maintain in a stabilized condition all other piles of spillage with dust suppressants until removal.

**307.9 Night-Time Operations:** The owner and/or operator of a facility shall implement, maintain, and use fugitive dust control measures at night, as approved in the Dust Control Plan.

**308 FACILITY INFORMATION SIGN:** The owner and/or operator of a facility subject to this rule shall erect and maintain a facility information sign at the main entrance such that members of the public can easily view and read the sign at all times. Such sign shall have a white background, have black block lettering that is at least four inches high, and shall contain at least all of the following information:

- 308.1 Facility name and permittee's name;
- 308.2 Current number of the air quality permit or of authority to operate under a general permit;
- 308.3 Name and local phone number of person(s) responsible for dust control matters; and
- 308.4 Text stating: "Dust complaints? Call Maricopa County Air Quality Department - (Insert the accurate Maricopa County Air Quality Department complaint line telephone number)."

**309 FUGITIVE DUST CONTROL TECHNICIAN:** The owner and/or operator of a facility with a rated or permitted capacity of 25 tons or more of material per hour or with five acres or more of disturbed surface area subject to a permit, whichever is greater, shall have in place a Fugitive Dust Control Technician, who shall meet all of the following qualifications:

- 309.1 Be authorized by the owner and/or operator of the facility to have full authority to ensure that fugitive dust control measures are implemented on-site and to conduct routine inspections, recordkeeping, and reporting to ensure that all fugitive dust control measures are installed, maintained, and used in compliance with this rule.
- 309.2 Be trained in accordance with the Comprehensive Dust Control Training Class conducted or approved by the Control Officer, successfully complete, at least once every three years, such Comprehensive Dust Control Training Class, and have a valid dust training certification identification card readily accessible on-site while acting as a Fugitive Dust Control Technician.
- 309.3 Be authorized by the owner and/or operator of the facility to install, maintain, and use fugitive dust control measures, deploy resources, and shutdown or modify activities as needed.
- 309.4 Be on-site at all times during primary dust generating operations related to the purposes for which the permit was obtained.
- 309.5 Be certified to determine opacity as visible emissions in accordance with the provisions of the EPA Method 9 as specified in 40 CFR, Part 60, Appendix A.
- 309.6 Be authorized by the owner and/or operator of the facility to ensure that the site superintendent or other designated on-site representative of the owner and/or operator of the facility and water truck and water pull drivers for each site be trained in accordance with the Basic Dust Control Training Class conducted or approved by the Control Officer with jurisdiction over the site and successfully complete, at least once every three years, such Basic Dust Control Training Class.

**310 BASIC DUST CONTROL TRAINING CLASS:**

- 310.1** At least once every three years, the site superintendent or other designated on-site representative of the permit holder, if present at a site that has more than one acre of disturbed surface area that is subject to a permit issued by the Control Officer requiring control of PM<sub>10</sub> emissions from dust generating operation, shall successfully complete a Basic Dust Control Training Class conducted or approved by the Control Officer.
- 310.2** At least once every three years, water truck and water-pull drivers shall successfully complete a Basic Dust Control Training Class conducted or approved by the Control Officer.
- 310.3** All persons having successfully completed training during the 2006 and 2007 calendar years shall be deemed to have satisfied the requirement to successfully complete the Basic Dust Control Training Class, if the training that was completed was conducted or approved by the Control Officer. Completion of the Comprehensive Dust Control Training Class, as required in Section 309.2 of this rule, shall satisfy the requirement of this section of this rule.

**311 DUST CONTROL PLAN:**

- 311.1** The owner and/or operator of a facility shall submit, to the Control Officer, a Dust Control Plan that describes all fugitive dust control measures to be implemented, in order to comply with Section 305.2, Section 306, Section 307, and Section 309 of this rule.
- 311.2** The owner and/or operator of a facility shall submit, to the Control Officer, a Dust Control Plan that describes all equipment associated with any process fugitive emissions to be implemented, in order to comply with Section 301 and Section 305.2 of this rule and that includes all of the information in Section 311.2(a) and Section 311.2(b) of this rule, as applicable. If an alternative plan for conducting required soil moisture tests is approved by the Control Officer, included in a Dust Control Plan, and implemented by the owner and/or operator, as allowed under Section 301.2(c)(6) of this rule, and if the Control Officer determines that such alternative plan included in a Dust Control Plan has been followed, yet fugitive dust emissions still exceed the standards of this rule, then the Control Officer shall issue a written notice to the owner and/or operator explaining such determination. The owner and/or operator shall make written revisions to the Dust Control Plan and shall submit such revised Dust Control Plan to the Control Officer within three working days of receipt of the Control Officer's written notice, unless such time period is extended by the Control Officer, upon request, for good cause. During the time that such owner and/or operator is preparing revisions to the Dust Control Plan, such owner and/or operator must still comply with all requirements of this rule.

- a. Documentation for the soil moisture content in order to comply with Section 301.2 of this rule.
- b. Documentation of soil moisture analysis for each move notice regarding portable sources.

**311.3** The Dust Control Plan shall, in addition, contain all the information described in Rule 310-Fugitive Dust From Dust Generating Operations of these rules.

**311.4** All other criteria associated with the Dust Control Plan shall meet the criteria described in Rule 310-Fugitive Dust From Dust Generating Operations of these rules.

**311.5** The Control Officer shall approve, disapprove, or conditionally approve the Dust Control Plan, in accordance with the criteria used to approve, disapprove or conditionally approve a permit. Failure to comply with the provisions of an approved Dust Control Plan shall be deemed a violation of this rule.

**311.6** With each move notice regarding portable sources, the owner and/or operator of a facility shall submit, to the Control Officer, a Dust Control Plan that meets the requirements of this section of this rule.

**312 GENERAL REQUIREMENTS:** An owner and/or operator of a facility subject to this rule shall be subject to the standards and/or requirements of this rule at all times. Failure to comply with any one of the following requirements shall constitute a violation.

**312.1** Process emission limitations and controls described in Section 301, Section 302, and Section 303 of this rule.

**312.2** Operation and maintenance (O&M) plan requirements for an emission control system and for dust control measures described in Section 305 of this rule.

**312.3** Fugitive dust emission limitations described in Section 306 of this rule.

**312.4** Fugitive dust control measures described in Section 307 of this rule.

**312.5** Facility information sign requirement described in Section 308 of this rule.

**312.6** Fugitive Dust Control Technician requirements described in Section 309 of this rule.

**312.7** Basic Dust Control Training Class requirements described in Section 310.

**312.8** Dust Control Plan requirements described in Section 311 of this rule.

**312.9** Monitoring and recordkeeping requirements described in Section 500 of this rule.

**312.10** Any other requirements of this rule.

## **SECTION 400 - ADMINISTRATIVE REQUIREMENTS**

**401 COMPLIANCE SCHEDULE:** The newly amended provisions of this rule shall become effective upon adoption of this rule except as follows:

**401.1 Process Controls:** Process controls required by Section 301.2 of this rule shall be implemented by July 12, 2008.

**401.2 O&M Plan:**

- a. The owner and/or operator of an existing facility shall revise/update all O&M Plans by June 12, 2008.
- b. The Control Officer shall take final action on an O&M Plan revision/update to address the newly amended provisions of this rule within 30 calendar days of the filing of the complete O&M Plan revision/update. The Control Officer shall notify the applicant in writing of his approval or denial.

**401.3 Dust Control Plan:**

- a. The owner and/or operator of an existing facility shall revise/update all Dust Control Plans by June 12, 2008.
- b. The owner and/or operator of a new facility shall submit to the Control Officer a Dust Control Plan at the time such owner and/or operator submits a permit application to the Control Officer.
- c. The Control Officer shall take final action on a Dust Control Plan revision/update to address the newly amended provisions of this rule within 30 calendar days of the filing of the complete Dust Control Plan revision/update. The Control Officer shall notify the applicant in writing of his approval or denial.

**401.4 Basic Dust Control Training Class:** No later than December 31, 2008, a site superintendent or other designated on-site representative of the permit holder, water truck drivers, and water pull drivers shall have successfully completed the Basic Dust Control Training Class, as described in Section 310 of this rule.

**401.5 Comprehensive Dust Control Training Class:** No later than June 30, 2008, a Fugitive Dust Control Technician shall have successfully completed the



Comprehensive Dust Control Training Class, as described in Section 309 of this rule.

**401.6 Rumble Grates:** As of June 12, 2008, new rumble grates or existing rumble grates that are moved or modified must meet the requirements described in Sections 307.6(a)(1)(c) or 307.6(b)(1)(b) of this rule.

## **SECTION 500 - MONITORING AND RECORDS**

**501 MONITORING, RECORDKEEPING AND REPORTING:** Any owner and/or operator of a facility subject to this rule shall comply with the following requirements. Records shall be retained for five years and shall be made available to the Control Officer upon request.

**501.1** Operational information required by this rule shall be kept in a complete and consistent manner on-site and be made available without delay to the Control Officer upon request.

**501.2** Records of the following process and operational information, as applicable, are required:

**a. General Data:** Daily records shall be kept for all days that a facility is actively operating. Records shall include all of the following:

- (1) Hours of operation;
- (2) Type of batch operation (wet, dry, central);
- (3) Throughput per day of basic raw materials including sand, aggregate, cement (tons/day);
- (4) Volume of concrete produced per day (cubic yards/day) and volume of asphaltic concrete produced per day (tons/day);
- (5) Volume of aggregate mined per day (tons per day); and
- (6) Amount of each basic raw material including sand, aggregate, cement, fly ash delivered per day (tons/day).
- (7) For facilities that assert to be below the thresholds in Section 307.6(a) and Section 307.6(e)(1) of this rule, number of aggregate trucks, mixer trucks, and/or batch trucks exiting the facility.

**b. Additional Data For Dry Mix Concrete Plants And/Or Bagging Operations:** Records shall include all of the following:

- (1) Number of bags of dry mix produced;
- (2) Weight (size) of bags of dry mix produced;
- (3) Kind and amount of fuel consumed in dryer (cubic feet/day or gallons/day); and
- (4) Kind and amount of any back-up fuel, if any.

**c. Control And Monitoring Device Data:** Records shall include all of the following:

- (1) For a fabric filter baghouse:
  - (a) Date of inspection;
  - (b) Date and designation of bag replacement;
  - (c) Date of service or maintenance related activities; and
  - (d) Time, date, and cause of fabric filter baghouse failure and/or down time, if applicable.
- (2) For a scrubber:
  - (a) Date of service or maintenance related activities;
  - (b) Liquid flow rate;
  - (c) Other operating parameters that need to be monitored to assure that the scrubber is functioning properly and operating within design parameters; and
  - (d) Time, date, and cause of scrubber failure and/or down time, if applicable.
- (3) For watering systems (e.g., spray bars or an equivalent control):
  - (a) Date, time, and location of each moisture sampling point; and
  - (b) Results of moisture testing.

**501.3 O&M Plan Records:** An owner and/or operator of a facility shall maintain all of the following records in accordance with an approved O&M Plan:

**a. For Any ECS, Any Other Emission Processing Equipment, And Any ECS Monitoring Devices That Are Used Pursuant To This Rule Or To An Air Pollution Control Permit:**

- (1) Periods of time that an approved ECS is operating to comply with this rule;
- (2) Periods of time that an approved ECS is not operating;
- (3) Flow rates;
- (4) Pressure drops;
- (5) Other conditions necessary to determine if the approved ECS is functioning properly;
- (6) Results of visual inspections; and
- (7) Correction action taken, if necessary.

**b. For Equipment Associated With Any Process Fugitive Emissions And Any Fugitive Dust Control Measures That Are Implemented To Comply With This Rule Or To An Air Pollution Control Permit:**

- (1) A written record of self-inspection on each day that a facility is actively operating. Self-inspection records shall include daily inspections or in compliance with O&M Plan requirements, whichever is more frequent;
- (2) Maintenance of street sweepers; and
- (3) Maintenance of trackout control devices, gravel pads, wheel washers, and truck washers.

**501.4 Dust Control Plan Records:** An owner and/or operator of a facility shall compile, maintain, and retain a written record of self-inspection of all fugitive dust control measures implemented, in order to comply with the Dust Control Plan, on each day that the facility is actively operating. Self-inspection records shall include information as described in Rule 310-Fugitive Dust From Dust Generating Operations of these rules.

**501.5 Basic Dust Control Training Class Records:** An owner and/or operator of a facility shall compile, maintain, and retain a written record for each employee subject to Section 310 of this rule. Such written records shall include the name of the employee, the date of the Basic Dust Control Training Class that such

employee successfully completed, and the name of the agency/representative who conducted such class.

**502 COMPLIANCE DETERMINATION - FOR PROCESS EMISSIONS AND**

**CONTROLS:** Compliance determinations for activities regulated by Sections 301 (excluding Section 301.1(e)), 302, and/or 303 of this rule shall be made according to the test methods for those subparts of 40 CFR Part 60, Appendix A, adopted as of July 1, 2007, as listed below. Such subparts of 40 CFR Part 60, Appendix A, adopted as of July 1, 2007 and 40 CFR Part 51, Appendix M, adopted as of July 1, 2007, are adopted by reference as indicated. This adoption by reference includes no future editions or amendments. Copies of test methods referenced in Section 502 of this rule are available at Maricopa County Air Quality Department, 1001 North Central Avenue, Phoenix, Arizona, 85004-1942. When more than one test method is permitted for a compliance determination, then an exceedance of the limits established in this rule, determined by any of the applicable test methods, constitutes a violation of this rule.

**502.1 Grain Loading:** Particulate matter and associated moisture content shall be determined using the applicable EPA Reference Methods 1 through 5, 40 CFR Part 60, Appendix A.

**502.2 Opacity Observations:** Opacity observations to measure visible emissions from activities regulated by Sections 301 (excluding Section 301.1(e)), 302, and/or 303 of this rule shall be conducted in accordance with the techniques specified in EPA Reference Method 203B (Visual Determination Of Opacity Of Emissions From Stationary Sources For Time-Exception Regulations), 40 CFR Part 51, Appendix M, adopted as of July 1, 2007. Emissions shall not exceed the applicable opacity standards described in Section 301(excluding Section 301.1(e)), Section 302, and Section 303 of this rule for a period aggregating more than three minutes in any 60-minute period.

**502.3 Soil Moisture Testing For Watering Systems:**

- a. If twice daily moisture sampling is required, such sampling shall be conducted within one hour of startup and again at 3 pm or within one hour prior to daily shutdown but no less frequently than once every 8-hour period.
- b. If daily moisture sampling is required, such sampling shall be conducted within one hour after startup.
- c. Moisture testing shall be conducted on all crushers, shaker screens, and material transfer points (excluding wet plants). Unless prior approval from the Control Officer is granted, moisture testing shall be conducted at the following sample points:

- (1) Within 10 feet from the point where crushed aggregate material is placed on the discharge belt conveyor from the crusher;
  - (2) Within 10 feet from the point where screened aggregate material is placed on the conveyor; and
  - (3) From each stacker point.
- d.** The number of sampling points identified in Section 502.3(c)(1) through (3) of this rule may be reduced, if the owner and/or operator of a facility complies with all of the following requirements:
- (1) A 5% minimum moisture content, as demonstrated by a soil moisture test conducted in accordance with the test methods described in Section 502 of this rule, is maintained at the primary crusher;
  - (2) A minimum of 20 soil moisture samples are taken at all of the points identified in Section 502.3(c) of this rule;
  - (3) A 4% minimum moisture content, as demonstrated by a soil moisture test conducted in accordance with the test methods described in Section 502 of this rule and as demonstrated by the soil moisture samples required by Section 502.3(d)(2) of this rule, is maintained at all of the points identified in Section 502.3(c) of this rule; and
  - (4) A written request is submitted to and approved by the Control Officer to revise/modify the Dust Control Plan to reflect the change in moisture content and the reduced number of sampling points according to the demonstration made by the owner and/or operator of a facility according to this section of this rule.
- e.** Moisture testing is not required on a crusher and/or screen plant equipped with a baghouse or fabric filter, electrostatic precipitator, or wet scrubber, excluding wet spray bars, for control of particulate matter.
- f.** Moisture testing shall include all aggregate material less than 0.25 inch in diameter.
- g.** Moisture testing shall be conducted in accordance with the requirements of American Society For Testing And Materials C566-97 (2004) “Standard Test Method For Total Evaporable Moisture Content Of Aggregate By Drying” with the exception that smaller sample portions may be used.

- 503 COMPLIANCE DETERMINATION FOR EMISSIONS AND CONTROLS THAT ARE REGULATED BY SECTION 301.1(E), SECTION 304 AND/OR SECTION 306 OF THIS RULE:** To determine compliance with the fugitive dust emission limitations described in Section 301.1(e), Section 304, and/or Section 306 of this rule, opacity observations shall be conducted in accordance with the techniques specified in Appendix C-Fugitive Dust Test Methods of these rules.
- 504 COMPLIANCE DETERMINATION FOR SOIL MOISTURE CONTENT AND SOIL COMPACTION CHARACTERISTICS TEST METHODS ADOPTED BY REFERENCE:**
- 504.1** ASTM Method D2216-05 ("Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass"), 2005 edition.
- 504.2** ASTM Method D1557-02e1 ("Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup> (2,700 kN-m/m<sup>3</sup>))), 2002 edition.
- 505 COMPLIANCE DETERMINATION FOR STABILIZATION STANDARDS TEST METHODS ADOPTED BY REFERENCE:** The stabilization standards described in Section 306.5 of this rule shall be determined by using the following test methods in accordance with Appendix C-Fugitive Dust Test Methods of these rules:
- 505.1** Appendix C, Section 2.1.2 (Silt Content Test Method) of these rules to estimate the silt content of the trafficked parts of unpaved roads (not to exceed 6%) and unpaved parking lots (not to exceed 8%).
- 505.2** Appendix C, Section 2.3 (Test Methods for Stabilization-Soil Crust Determination (The Drop Ball Test)) of these rules for a soil crust.
- 505.3** Appendix C, Section 2.4 (Test Methods for Stabilization-Determination Of Threshold Friction Velocity (TFV) (Sieving Field Procedure)) of these rules for threshold friction velocity (TFV) corrected for non-erodible elements of 100 cm/second or higher.
- 505.4** Appendix C, Section 2.5 (Test Methods For Stabilization-Determination Of Flat Vegetative Cover) of these rules for flat vegetation cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%.
- 505.5** Appendix C, Section 2.6 (Test Methods For Stabilization-Determination Of Standing Vegetative Cover) of these rules for standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%.

**505.6** Appendix C, Section 2.6 (Test Methods For Stabilization-Determination Of Standing Vegetative Cover) of these rules for standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements.

**505.7** Appendix C, Section 2.7 (Test Methods For Stabilization-Rock Test Method) of these rules for a percent cover that is equal to or greater than 10%, for non-erodible elements.

**505.8** An alternative test method approved in writing by the Control Officer and the Administrator.

**506 CERTIFIED STREET SWEEPING EQUIPMENT LIST ADOPTED BY**

**REFERENCE:** The list of street sweeping equipment (as of July 9, 2004) that has met the South Coast Air Quality Management Rule 1186 certification standards is found in support documents for the South Coast Air Quality Management District Regulation XI-Source Specific Standards, Rule 1186-PM<sub>10</sub> Emissions From Paved And Unpaved Roads And Livestock Operations and is adopted by reference. A copy of the list of certified street sweeping equipment can also be obtained at Maricopa County Air Quality Department, 1001 North Central Avenue, Phoenix, Arizona, 85004.