

Maricopa County Air Quality Department

Rule 316: Nonmetallic Mineral Processing Stakeholder Meeting

April 25, 2013

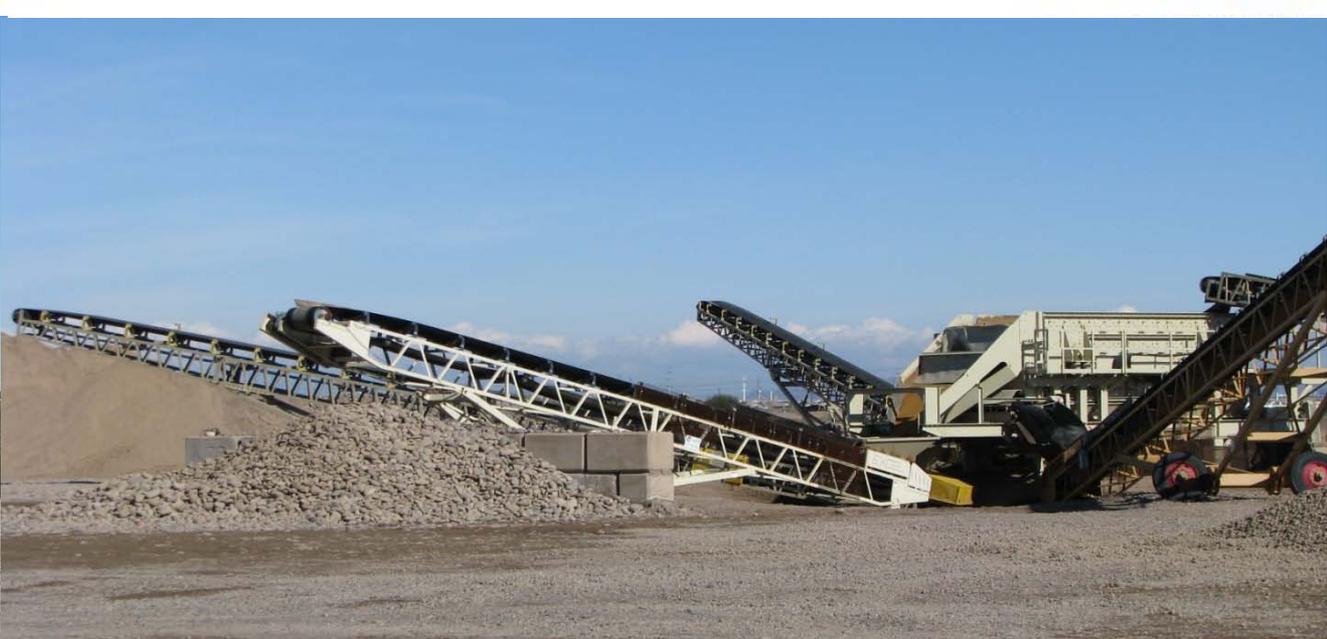


Maricopa County
Air Quality Department



WALK MORE USE CFLS MORE CARPOOL MORE
BIKE MORE RAKE MORE TELECOMMUTE
MORE DRIVE HYBRIDS MORE CONSOLIDATE
ERRANDS MORE RIDE PUBLIC TRANSPORTATION
MORE USE ENERGY EFFICIENT APPLIANCES
MORE CARRY REUSABLE TOTE BAGS MORE
CONSIDER SOLAR MORE RUN COLD WATER
CYCLES MORE USE REUSABLE CONTAINERS
MORE CONSERVE ELECTRICITY MORE REDUCE
WOODBURNING MORE RECYCLE MORE USE
ELECTRIC LAWN AND GARDEN EQUIPMENT
MORE REFUEL AFTER DARK MORE RIDE
THE BUS MORE RIDE THE LIGHT RAIL MORE
WALK MORE USE CFLS MORE CARPOOL MORE
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WALK MORE USE CFLS MORE CARPOOL MORE

CLEAN AIR MAKE MORE





Rule 316: History

- Adopted in 1993
- Revised in 1999, 2005 and 2008:
 - Included all Best Available Control Measures (BACM) and Most Stringent Measures (MSM)
 - Implemented Senate Bill 1552
 - Included training requirements
 - Included dust proof paving for parking, maneuvering and ingress and egress areas
 - Complied with commitments in Five Percent Plan
 - Included a requirement that sites have at all times during primary dust-generating operations a Fugitive Dust Control Technician



Rule 316: History

Rule 316 revised in 2008:

- Complied with commitments in Five Percent Plan
- The Maricopa County Air Quality Department committed to enforce the provisions of Rule 316 (revised in 2005)
- The Maricopa County Air Quality Department committed to hire five Compliance Inspectors to inspect five times per year Rule 316 sources:
 - Nonmetallic mineral processing plants
 - Concrete plants
 - Asphaltic concrete plants
 - Yard/stockpiling sources





Silt loading and silt content standards for unpaved roads

Stabilization requirements for disturbed surface areas

Control requirements for areas where loaders, batch trucks and aggregate trucks operate

Trackout not to extend 25' on paved roads

Gravel pads, rumble grates and wheel washer requirements

Dust control training requirements for site superintendent and water truck drivers

Sweeping requirement for paved roads of the facility

Control requirements for crushers, shaker screens, and material transfer points

Stabilization requirements for open storage piles

Fugitive dust not to extend beyond the property line

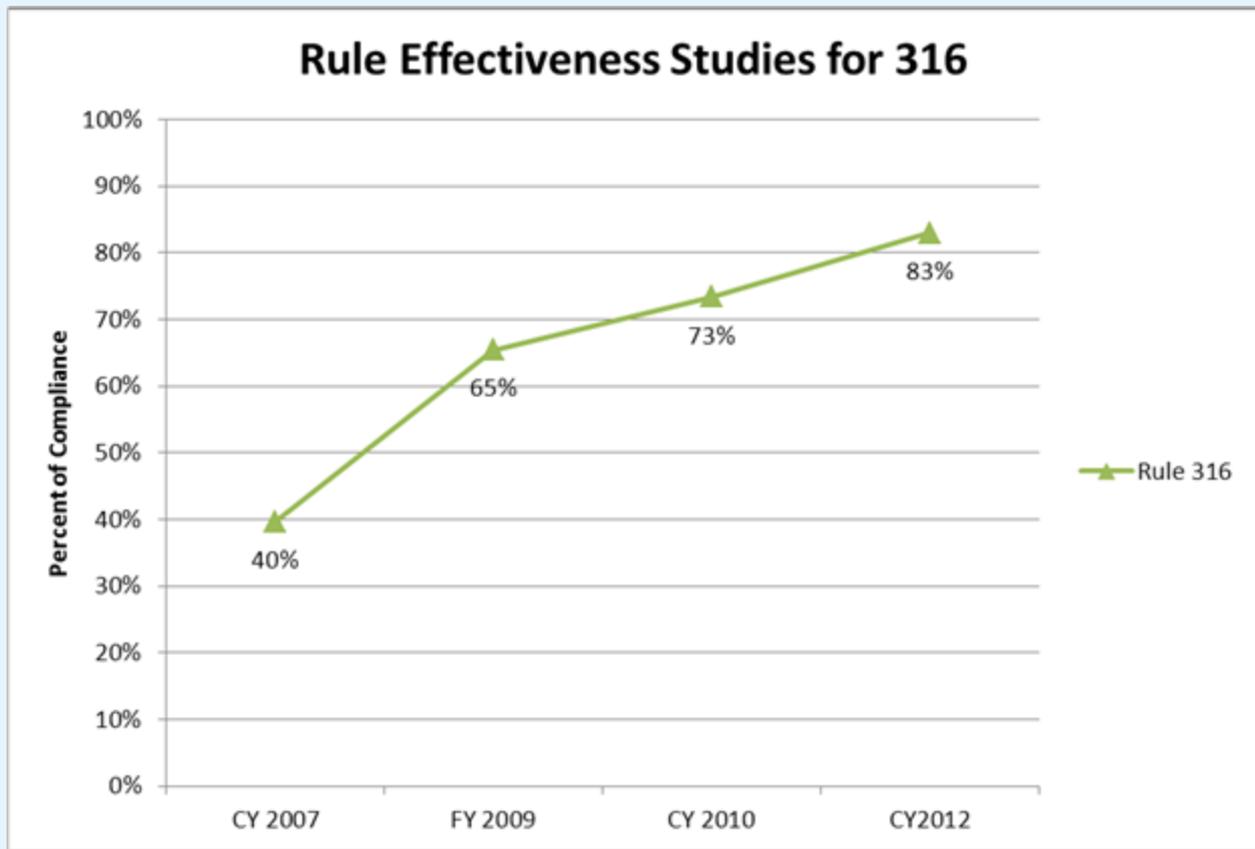
Rule 316 Revised In 2008

**CLEAN AIR
MAKE
MORE**

WALK MORE USE CFLS MORE
ERRANDS MORE RIDE PUBLIC
MORE CONSIDER SOLAR MORE
REDUCE WOODBURNING MORE
MORE RIDE THE BUS MORE

Rule 316: Rule Effectiveness Study Results

USE MORE CONSOLIDATE
USE REUSABLE TOTE BAGS
CONSERVE ELECTRICITY MORE
REFUEL AFTER DARK
WALK MORE RAKE MORE



DRIVE HYBRIDS MORE CONSOLIDATE ERRANDS MORE RIDE PUBLIC TRANSPORTATION MORE USE ENERGY EFFICIENT APPLIANCES MORE CARRY REUSABLE TOTE BAGS MORE CONSIDER SOLAR MORE RUN COLD WATER CYCLES MORE USE REUSABLE CONTAINERS MORE CONSERVE ELECTRICITY MORE REDUCE WOODBURNING MORE RECYCLE MORE USE ELECTRIC LAWN AND GARDEN EQUIPMENT MORE REFUEL AFTER DARK MORE RIDE THE BUS MORE WALK MORE

**CLEAN AIR
MAKE
MORE**

WALK MORE USE CFLS MORE
ERRANDS MORE RIDE PUBLIC
MORE CONSIDER SOLAR MORE
REDUCE WOODBURNING MORE
MORE RIDE THE BUS MORE

Rule 316: Handbook

DRIVE MORE CONSOLIDATE
ERRANDS MORE REUSABLE TOTE BAGS
CONSERVE ELECTRICITY MORE
REFUEL AFTER DARK
RIDE MORE RAKE MORE

Rule 316 Handbook Nonmetallic Mineral Processing

Maricopa County Air Quality Department



February 2013

Clarify stabilization standards re: temporarily or permanently inactive

Clarify definitions: cohesive hard surface and disturbed surface area

Clarify trackout control requirements

Clarify soil moisture testing requirements, sample portions and sample locations

Add bulk material on-site hauling requirements similar to Rule 310

Add procedures for using alternative technologies and control measures

Rule 316 Issues Raised Since 2008



Rule 316: Next Steps

- 1-County Manager Briefed Board Of Supervisors Jan 2013
- 2-County Stakeholder Workshop(s) May-July 2013
- 3-Stakeholder Notification 2 Weeks Before Board Of Health Meeting July or Oct 2013
- 4-Board Of Health Meeting To Initiate Regulatory Change July or Oct 2013
- 5-Specific Departmental Processes Oct - Dec 2013
 - Notice Of Proposed Rulemaking/Open Public Comment
 - Oral Proceeding (If Requested)/Close Public Comment
- 6-Stakeholder Notification 2 Weeks Prior To Board Of Health Meeting Jan 2014
- 7-Board Of Health Meeting To Make Recommendations To Board Of Supervisors Jan 2014
- 8-Schedule Board Of Supervisors' Public Hearing Feb 2014
- 9-Board Of Supervisors' Public Hearing March 2014
- 10-Item Adopted March 2014

Thank you for participating in the rulemaking process!

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**CLEAN AIR
MAKE
MORE**



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Air Quality Department

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MORE USE ENERGY EFFICIENT APPLIANCES MORE CARRY REUSABLE TOTE BAGS MORE CONSIDER SOLAR MORE RUN COLD WATER CYCLES MORE USE REUSABLE CONTAINERS
MORE CONSERVE ELECTRICITY MORE REDUCE WOODBURNING MORE RECYCLE MORE REFUEL AFTER DARK MORE RIDE THE BUS MORE RIDE THE LIGHT RAIL MORE USE CFLS MORE**

Maricopa County Air Quality Department
Rule 316: Nonmetallic Mineral Processing
Stakeholder Meeting
April 25, 2013

Slide #1

No notes

Slide #2

No notes

Slide #3

No notes

Slide #4

Rule 316 was adopted in 1993 and revised in 1999, 2005 and 2008.

Rule 316 was adopted in 1993:

- Written to limit the emission of particulate matter into the ambient air from any nonmetallic mining operation or rock product processing plant, i.e., any facility utilizing any combination of equipment or machinery that is used to mine, excavate, separate, 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, sand and gravel plants.
- Included Reasonably Available Control Technology (RACT) for hot mix asphaltic concrete plants, sand and gravel plants, bagging operations and activities generating yard dust.
- Maricopa County was classified as a Moderate Nonattainment Area for PM₁₀; had to show attainment by December 31, 1994.

Rule 316 was revised in 1999:

- Made existing standards consistent with New Source Performance Standards for nonmetallic mineral processing plants.
- Maricopa County was classified as a Serious Nonattainment Area for PM₁₀; had to show attainment by December 31, 2001.
- Maricopa County began an aggressive enforcement program; EPA wanted 80% compliance rate.

Rule 316 was revised in 2005:

- Made existing rule consistent with 2004-Revised PM₁₀ State Implementation Plan (SIP) For The Salt River Area.
- Included Best Available Control Measures (BACM) and Most Stringent Measures (MSM):
 - Included process controls, e.g., enclosures and watering systems
 - Included fugitive dust emission limitations, e.g., 20% opacity limit and no visible emissions at the property line
 - Included fugitive dust control measures for open storage piles, haul/access roads and trackout (cannot extend 25')
- Arizona Rock Products Association (ARPA) submitted application for a preliminary injunction to enjoin Maricopa County from enforcing certain Rule 316 control measures; in 2007, consent agreement in matter of ARPA and moratorium on enforcement of challenged measures was lifted and all sections of Rule 316 were in effect again:
 - Trackout control devices were to be installed by August 2007
 - Watering systems had to be installed (but not necessarily operated)
 - Stabilization standards had to be complied with whenever there was more than a brief halt in activity
 - No obligation to contain fugitive emissions released by upwind sources
 - Paving or cohesive hard surface had to be installed at entrance, exit and other areas of a permanent plant where batch trucks and material delivery trucks conduct their primary function

Rule 316 was revised in 2008:

- Included all Best Available Control Measures (BACM) and Most Stringent Measures (MSM). BACM are defined as "most effective measures for controlling particulates" and MSM are defined as "most stringent measures included in any State Implementation Plan (SIP) or achieved in practice in any State that can be feasibly implemented in the nonattainment area".
 - The goal of the soil moisture content requirements was to eliminate fugitive dust emissions and ensure implementation of BACM and MSM for the PM₁₀ State Implementation Plan (SIP). As a serious PM₁₀ nonattainment area requesting an extension of the attainment date, Maricopa County was required to meet the BACM requirements in the Clean Air Act Section 189 (b)(1)(B) and the MSM requirements in Section 188(e). Based on the permitting actions across the country, the U.S. Environmental Protection Agency (EPA) determined that the New Source Performance Standards (NSPS) for nonmetallic mineral

mining no longer represented BACM / MSM. On July 9, 2007, the EPA advised Maricopa County that Rule 316 had not included all BACM / MSM for nonmetallic mineral mining sources. Specifically, the EPA noted that Maricopa County had not included a requirement that sources maintain a minimum moisture content on crushing and screening operations and monitor the moisture content for compliance, citing Clark County, Nevada Section 34. As a result, maintaining a 4% minimum moisture content was the performance standard necessary to implement BACM and MSM as required by the Clean Air Act and to obtain the associated emissions reductions. The moisture testing and recordkeeping requirements were the way to ensure compliance with the moisture content standard and thus to obtain required MSM emissions reductions for the Maricopa County serious PM₁₀ nonattainment area. Assuming a baseline soil moisture content of 1.5%, Maricopa County estimated, based on AP-42, that increasing the soil moisture content from 1.5% to 4% will raise the control efficiency from 81.5% to 95.3% for crushing and screening emissions.

- Issues: Moisture content specification, minimum percent required; moisture testing protocol; recordkeeping
- Moisture content issue: Insert in Rule 316 a more detailed procedure for a source requesting an alternative moisture content condition in the Dust Control Plan
- Moisture testing protocol: Frequency of sampling/testing; location of samples; number of sampling points; alternative compliance demonstration to ASTM C-566-97 (2004); recordkeeping
- Implemented Senate Bill 1552, i.e., revised Rule 316 to include a requirement for training and dust proof paving for parking, maneuvering, ingress and egress areas.
- Complied with the commitments made in the Five Percent Plan for PM₁₀. (http://www.azmag.gov/Documents/EP_2012-06-06_FINAL-MAG-2012-Five-Percent-Plan-for-PM10-for-the-Maricopa-County-Nonattainment-Area.pdf), i.e., revised Rule 316 to include a requirement that sites have at all times during primary dust-generating operations a Fugitive Dust Control Technician
- Maricopa County prepared:
 - Off-site hauling requirement document
 - Basic guidance for evaluating alternative minimum moisture content
 - Rule 316 Minimum Moisture Content Guidance
 - Rule 316 Frequently Asked Questions
 - Rule 316 Position Paper 1 re: wheel washers and rumble grates on paved facilities
 - Interim Rule 316 Implementation Policy
- ARPAs issues:
 - Feasibility of 4% soil moisture
 - Number of sampling points
 - Applicability of product transfer operations
- Maricopa County conducted Public Workshop #1 on August 20, 2009
 - Proposed to remove from Rule 316 text re: product transfer operations
 - Proposed New Rule 301: Product Transfer Operations
 - ARPA's issues:
 - Regulatory overkill
 - Stabilization standards not compatible with product transfer operations
 - Dust control plan should not be required
 - Indicate which source categories are not meant to be regulated by Rule 316
- Maricopa County conducted Public Workshop #2 on January 6, 2010
 - ARPA's issues:
 - Applicability
 - "Cohesive hard surface" definition
 - Visible emissions observations and soil moisture testing requirements
 - Compliance schedule
 - Recordkeeping
 - Remaining issues:
 - Rounding 4% soil moisture content
 - Installation of spray bars at surge tunnels
 - Daily moisture sampling within 1-hour of startup
 - Dimensions for rumble grates
 - Enclose sides of shaker screens
 - High wind event and continuous pours
 - Definitions of cohesive hard surface and nonmetallic mineral processing plant
 - Trackout control measures for inert landfills
- EPA conducted site inspections of several sand and gravel operations in Maricopa County in the Spring / Summer 2010

Slide #5

Rule 316 was revised in 2008:

- Complied with commitments in Five Percent Plan
 - The Maricopa County Air Quality Department committed to enforce the provisions of Rule 316 (revised in 2005)
 - Process controls, e.g., enclosures and watering systems
 - Fugitive dust emission limitations, e.g., 20% opacity limit and no visible emissions at the property line
 - Fugitive dust control measures for open storage piles, haul/access roads and trackout (cannot extend 25')
 - Arizona Rock Products Association (ARPA) submitted application for a preliminary injunction to enjoin Maricopa County from enforcing certain Rule 316 control measures; in 2007, consent agreement in matter of ARPA and moratorium on enforcement of challenged measures was lifted and all sections of Rule 316 were in effect again:
 - Trackout control devices were to be installed by August 2007
 - Watering systems had to be installed (but not necessarily operated)
 - Stabilization standards had to be complied with whenever there was more than a brief halt in activity
 - No obligation to contain fugitive emissions released by upwind sources
 - Paving or cohesive hard surface had to be installed at entrance, exit and other areas of a permanent plant where batch trucks and material delivery trucks conduct their primary function
 - The Maricopa County Air Quality Department committed to hire five Compliance Inspectors to inspect five times per year Rule 316 sources
 - Nonmetallic mineral processing plants
 - Concrete plants
 - Asphaltic concrete plants
 - Yard/stockpiling sources.

Slide #6

No notes

Slide #7

Rule 316 revised in 2008:

1. Has opacity requirements:

- a. For stack emissions from non-rubberized asphaltic concrete plants – from 20% to 5%
- b. For fugitive dust emissions at concrete plants from any process source or operation except for truck dumping – from 20% to 10%
- c. For stack emissions from concrete plants – from 7% to 5%

2. Has additional control requirements for crushers, shaker screens and material transfer points:

- a. Enclose sides of all shaker screens
- b. Mount watering systems at inlet and outlet of all crushers, the outlet of all shaker screens and the outlet of all material transfer points
- c. Operate watering systems to maintain 4% minimum soil moisture content
 - (1) Soil moisture testing: all aggregate crushing, screening and conveying processes (less than ¼" minus product)
 - Conduct soil moisture tests twice daily if required to have Fugitive Dust Control Technician on-site (Fugitive Dust Control Technician must be on-site for facilities 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)
 - Conduct soil moisture tests daily if not required to have Fugitive Dust Control Technician on-site
 - (2) Soil moisture testing sampling points: outlet of each crusher, within 10 feet from point where screened aggregate is placed on a conveyor and at the stacker point (for safety reasons, from the final transfer point to the stacker belt rather than from stacking point)
 - (3) Number of soil moisture testing sampling points can be reduced by maintaining 5% soil moisture content at primary crusher and having a minimum of 20 soil moisture content samples at all required sampling points and maintaining 4% minimum soil moisture content at all points listed in Rule 316 and submitting a written request to the Control Officer identifying the reduced number of sampling points; Control Officer must approve before sampling points can be reduced
 - (4) Soil moisture testing frequency and sampling frequency: 1 day per week when source demonstrates that 4% minimum soil moisture content has been maintained for 4 consecutive weeks

3. Has fugitive dust control requirements

- a. For areas where loaders, support equipment and vehicles operate
 - b. For haul/access roads that are not in permanent areas of a facility
 - c. For roads that are in permanent areas of a facility
 - d. For roads that batch trucks, material delivery trucks and aggregate trucks travel on
 - e. For transporting bulk materials off-site
4. Has requirements for rumble grates and wheel washers at existing permanent facilities
 5. Has a prohibition against allowing trackout to extend more than 25' onto paved areas from any facility exit
 6. Has requirements for sweeping paved roads of the facility
 7. Has requirements for a facility information sign
 8. Has fugitive dust emission requirements, including a 20% opacity limitation for fugitive dust emissions not already regulated by other opacity limitations in the rule
 9. Has prohibition against causing fugitive dust emissions that remain visible beyond the property line
 10. Has silt loading and silt content standards for unpaved roads and unpaved parking and staging areas
 11. Has stabilization standards for open areas or disturbed surface areas on which no activity is occurring, including areas that are temporarily or permanently inactive
 12. Has requirements to implement fugitive dust control measures on open storage piles prior to and while conducting loading and unloading operations
 13. Has requirements for Fugitive Dust Control Technician for facilities 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
 - a. Must be trained according to Rule 316 Comprehensive Training Class
 14. Has requirements for dust control training for site superintendents and water truck and water pull drivers, if present at a site that has more than one acre of disturbed surface area subject to a permit
 - a. Must be trained according to Rule 316 Basic Training Class
 15. Has requirements for a dust control plan that describes all fugitive dust control measures for the facility
 16. Has requirements for recordkeeping for soil moisture testing, equipment associated with dust control measures and dust control training
 17. Has new definitions, e.g., cohesive hard surface, infrequent operations and trackout control device
 18. Has revised definitions, e.g., conveying system, fugitive dust emissions and nonmetallic mineral processing plant

Slide #8

A significant portion of Maricopa County has not attained the National Ambient Air Quality Standard (NAAQS) for PM₁₀. Maricopa County is designated as a Serious Nonattainment Area.

Maricopa County is required to comply with Section 189(d) of the Clean Air Act and reduce PM₁₀ emissions by at least 5% per year until the PM₁₀ NAAQS is met within the Maricopa County nonattainment area. The Five Percent Plan demonstrates the reduction of PM₁₀ emissions through the increase of rule effectiveness on current Maricopa County dust control measures.

Increases in rule effectiveness for Rule 316 are attributable to increases in compliance rates, enforcement activities, and enhanced public outreach and education activities.

In 2011, the Maricopa County Air Quality Department conducted 21 Rule 316 dust control training classes (10 Basic Training Classes and 11 Comprehensive Training Classes)

Basic Training Class: 80 individuals trained

Comprehensive Training Class: 146 individuals trained

In 2012, the Maricopa County Air Quality Department conducted 21 Rule 316 dust control training classes (10 Basic Training Classes and 11 Comprehensive Training Classes)

Basic Training Class: 89 individuals trained

Comprehensive Training Class: 179 individuals trained

Each type of training class is offered once a month. The Basic Training Class provides an overview of specific dust control measures and techniques. The Comprehensive Training Class provides more specifics about dust control measures and techniques, e.g., soil moisture stabilization tests, and provides an overview of opacity and Smoke School.

The rule effectiveness studies are designed to assess the percentage of inspected sources, during the subject time period, which did not receive any PM₁₀ emission-related violations.

Maricopa County determined how many sources applicable to Rule 316 were inspected in 2012. Then, Maricopa County determined the number of sources applicable to Rule 316 that received a PM₁₀ emission-related violation in 2012.

In 2012, there were 485 distinct inspections conducted on nonmetallic mineral processing sources. Any inspections that were close-outs or ineffective visits were removed from the study. The inspection data was then reduced to a “per permit” basis to document the number of unique nonmetallic mineral processing sources with a relevant inspection.

The total number of nonmetallic mineral processing sources inspected for the Rule 316 rule effectiveness study was 155. There were 104 distinct violations issued to nonmetallic mineral processing sources. Any violations that were rescinded or not related to earthmoving or PM₁₀ activities were removed from the rule effectiveness study. The violation data was then analyzed to determine if the violation was emission-based or procedural-based. Rule violations documenting a source’s compliance with emissions or control measure application were considered emission-based. For example, a recordkeeping violation for failing to record the amount and location of water used to stabilize a nonmetallic mineral processing site was considered an emission-based violation. The emission-based violation data was reduced to a “per permit” basis to document the number of unique nonmetallic mineral processing sources with an emission-based violation.

The total number of nonmetallic mineral processing sources that received an emission-based violation for the Rule 316 rule effectiveness study was 27.

The rule effectiveness for 2012 was calculated as:

Rule effectiveness=1-((Sources with an Emission—based on Violation)/(Total Sources Inspected))=1-27/155

Thus, the rule effectiveness for Rule 316 in 2012 was 83%.

Slide #9

On March 11, 2013, after an extensive collaborative effort between the Maricopa County Air Quality Department and the Arizona Rock Products Association (ARPA), a new dust control guide became available on-line at <http://1.usa.gov/Z34zpG>.

The 58-page guide is designed to give companies in the rock products industry an easy-to-use roadmap to achieve compliance with current dust control regulations. The Rule 316 Nonmetallic Mineral Processing Handbook is designed to provide a comprehensive overview of Rule 316, which establishes standards for industry compliance and dust control.

Slide #10

Rule 316 issues raised since 2008:

1. Clarify soil moisture testing requirements, sample portions, sample locations and “alternative compliance demonstration protocol”

a. In place of soil moisture testing of all crushers, propose more stringent controls on crushers:

(1) Permanently mount and operate process controls in three minimum locations

• A fogging system or a misting system at inlet and outlet of all crushers

• A watering system on the outlet of all shaker screens

• A watering system on the outlet of all material transfer points, excluding wet material processing

(2) Within one hour of startup, conduct one set of soil moisture tests in three minimum soil moisture testing locations

(3) Within one hour of startup, conduct daily visible emissions observations at all crushers

(4) Conduct additional set of visible emissions observations during the night, if operating after sunset

(5) Conduct opacity observations at all crushers, if the presence of visible emissions is observed

- Begin opacity observations within one hour of any visible emissions
 - Opacity cannot exceed applicable opacity limit (aggregating more than 3 minutes in any 60-minutes)
2. Add procedures for applying for and using alternative technologies, controls, methods and measures
 - a. Narrow the scope of “alternatives” to specific rule requirements that sources have submitted alternative requests for in the past or requirements that may be expected to have alternative requests for in the future:
 - (1) Alternative moisture testing method with Speedy Moisture Meter
 - (2) Alternative moisture content requirement for hot mix asphalt plants (minimum moisture content of 2.5% for unwashed feed products and 2% for washed feed products)
 - (3) Alternative trackout control requirements for cement transfer and bagging facilities (rumble grates, wheel washers or other trackout control devices are not required if four conditions are met, e.g., all internal travel, parking and vehicle maneuvering areas are paved)
 3. Add bulk material on-site hauling requirements similar to requirements in Rule 310
 - a. When bulk material is hauled off-site from a facility subject to Rule 316, said haul truck is subject to the off-site hauling requirements in Rule 316, Section 307.5.
 - b. The off-site hauling requirements in Rule 316, Section 307.5 are similar to the off-site hauling requirements in Rule 310 (Fugitive Dust From Dust-Generating Operations), except Rule 316, Section 307.5 does not include this requirement: If hauling bulk material off-site, load all haul trucks such that at no time shall the highest point of the bulk material be higher than the sides, front, and back of the cargo container area
 - c. Add this requirement to Rule 316, Section 307.5: If hauling bulk material off-site, load all haul trucks such that at no time shall the highest point of the bulk material be higher than the sides, front, and back of the cargo container area
 4. Clarify trackout control requirements
 - a. The requirements for sweeping on-site paved roads at facilities with less than 60 trucks exiting a facility on any day are more onerous than the requirements for sweeping on-site paved roads at facilities with a minimum of 60 trucks exiting a facility on any day (propose that if less than 60 trucks exit a facility on any day, then sweep the paved roads with a street sweeper by the end of every other workday, if there is evidence of dirt and/or other bulk material extending a cumulative distance of 12 linear feet or more on any paved internal road)
 - b. If all internal travel, parking and vehicle maneuvering areas are installed and maintained with a paved surface (and meet three other requirements), then facility should not be required to install, maintain, or use a wheel washer, rumble grate, or other trackout control device
 5. Clarify stabilization standards, e.g., delete the phrase “temporarily or permanently inactive”
 - a. If a facility has open areas or disturbed surface areas on which no activity is occurring, including areas that are temporarily or permanently inactive, such areas must be stabilized
 - b. “Temporarily or permanently inactive” was not intended to include brief breaks taken during a workday; a sufficient period of inactivity is required to constitute “inactive”
 6. Clarify definitions, e.g., cohesive hard surface, area accessible to the public, disturbed surface area, unpaved road, gravel pad and rumble grate
 - a. Fugitive dust control requirements for on-site traffic include requiring all batch trucks and delivery trucks to remain on paved surfaces or cohesive hard surfaces, but the definition of “cohesive hard surface” is “any material maintained as a roadway surface”. “Any material” does not always provide fugitive dust control
 - b. The definition of “area accessible to the public” should specify “any paved parking lot or paved roadway that can be entered or used for public travel...”
 - c. The dimensions of a gravel pad should be included in the definition and the dimensions of a rumble grate should be included in the definition
 7. Amend text to match New Source Performance Standards, Subpart OOO, e.g., stack emissions from crushing and screening

Maricopa County conducted Public Workshop #1 on August 20, 2009

- Proposed to remove from Rule 316 text re: product transfer operations

- Proposed New Rule 301: Product Transfer Operations
- Arizona Rock Products Association's (ARPA's) issues:
 - Regulatory overkill
 - Stabilization standards not compatible with product transfer operations
 - Dust control plan should not be required
 - Indicate which source categories are not meant to be regulated by Rule 316
 - Feasibility of 4% soil moisture
 - Number of sampling points
 - Applicability of product transfer operations

Maricopa County conducted Public Workshop #2 on January 6, 2010

- ARPA's issues
 - Applicability
 - "Cohesive hard surface" definition
 - Visible emissions observations and soil moisture testing requirements
 - Compliance schedule
 - Recordkeeping
- Remaining issues
 - Rounding 4% soil moisture content
 - Installation of spray bars at surge tunnels
 - Daily moisture sampling within 1-hour of startup
 - Dimensions for rumble grates
 - Enclose sides of shaker screens
 - High wind event and continuous pours
 - Definitions of cohesive hard surface and nonmetallic mineral processing plant
 - Trackout control measures for inert landfills

The goal of the soil moisture content requirements was to eliminate fugitive dust emissions and ensure implementation of BACM and MSM for the PM₁₀ State Implementation Plan (SIP). As a serious PM₁₀ nonattainment area requesting an extension of the attainment date, Maricopa County was required to meet the BACM requirements in the Clean Air Act Section 189 (b)(1)(B) and the MSM requirements in Section 188(e). Based on the permitting actions across the country, the U.S. Environmental Protection Agency (EPA) determined that the New Source Performance Standards (NSPS) for nonmetallic mineral mining no longer represented BACM / MSM. On July 9, 2007, the EPA advised Maricopa County that Rule 316 had not included all BACM / MSM for nonmetallic mineral mining sources. Specifically, the EPA noted that Maricopa County had not included a requirement that sources maintain a minimum moisture content on crushing and screening operations and monitor the moisture content for compliance, citing Clark County, Nevada Section 34. As a result, maintaining a 4% minimum moisture content was the performance standard necessary to implement BACM and MSM as required by the Clean Air Act and to obtain the associated emissions reductions. The moisture testing and recordkeeping requirements were the way to ensure compliance with the moisture content standard and thus to obtain required MSM emissions reductions for the Maricopa County serious PM₁₀ nonattainment area. Assuming a baseline soil moisture content of 1.5%, Maricopa County estimated, based on AP-42, that increasing the soil moisture content from 1.5% to 4% will raise the control efficiency from 81.5% to 95.3% for crushing and screening emissions.

- Issues: Moisture content specification, minimum percent required; moisture testing protocol; recordkeeping
- Moisture content issue: Insert in Rule 316 a more detailed procedure for a source requesting an alternative moisture content condition in the Dust Control Plan
- Moisture testing protocol: Frequency of sampling/testing; location of samples; number of sampling points; alternative compliance demonstration to ASTM C-566-97 (2004); recordkeeping

Slide #11

No notes

Slide #12

No notes