

MARYLAND REGISTER

Proposed Action on Regulations

Comparison to Federal Standards Submission and Response

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In accordance with Executive Order 01.01.1996.03 and memo dated July 26, 1996, the attached document is submitted to the Department of Business and Economic Development for review.

The Proposed Action is not more restrictive or stringent than corresponding federal standards.

COMAR Codification: 26.11.01.10

COMAR Codification: 26.11.09.08

COMAR Codification: 26.11.30.01 — .08

Corresponding Federal Standard:

There are corresponding federal standards to this proposed action, but the proposed action is not more restrictive. 40 CFR 60 Appendix F requires cement plants to demonstrate compliance with NOx emission standards.

Discussion/Justification:

2013 National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Portland Cement Manufacturing Industry and Standards of Performance for Portland Cement

Plants require new particulate matter monitoring procedures and these procedures can be modified to replace the need for COMs.

TO BE COMPLETED BY DBED

- Agree
-Disagree

Comments:

DBED does not have expertise in this matter and but believes the MDE does and as such believes their assertion that the regulations are not more restrictive or stringent than corresponding federal standards.

Name: Sandy Popp
 Date: 3/11/2015

-Submit to Governor's Office
Governor's Office Response

Comments:

Transmittal Sheet PROPOSED OR REPROPOSED Actions on Regulations	Date Filed with AELR Committee	TO BE COMPLETED BY DSD
	03/13/2015	Date Filed with Division of State Documents
		Document Number
		Date of Publication in MD Register

Title 26
DEPARTMENT OF THE ENVIRONMENT

Subtitle 11 AIR QUALITY

26.11.01 General Administrative Provisions

Subtitle 11 AIR QUALITY

26.11.09 Control of Fuel-Burning Equipment, Stationary Internal Combustion Engines, and Certain Fuel-Burning Installations

Subtitle 11 AIR QUALITY

26.11.30 Control of Portland Cement Manufacturing Plants

Authority: Authority: Environment Article, §§1-101, 1-404, 2-101—2-103, 2-301—2-303, 10-102, and 10-103, Annotated Code of Maryland

Notice of Proposed Action

1. Desired date of publication in Maryland
Register: 4/17/2015

2. COMAR Codification

Titl e	Subtit le	Chapt er	Regulati on
26	11	01	10
26	11	09	08
26	11	30	01 — .08

3. Name of Promulgating Authority

Department of the Environment

4. Name of Regulations Coordinator	Telephone Number
Carolyn A Jones	410-537-4210

Mailing Address

1800 Washington Blvd

City	State	Zip Code
Baltimore	MD	21230

Email
carolyna.jones@maryland.gov

5. Name of Person to Call About this Document	Telephone No.
Randy E. Mosier	(410) 537-4488

Email Address
randy.mosier@maryland.gov

6. Check applicable items:

- X- New Regulations
- X- Amendments to Existing Regulations
- Date when existing text was downloaded from

The Secretary of the Environment proposes to : (1) amend Regulation .10 under COMAR 26.11.01 General Administrative Services; (2) amend Regulation .08 under COMAR 26.11.09 Control of Fuel-Burning Equipment, Stationary Internal Combustion Engines, and Certain Fuel-Burning Installations; and (3) adopt new Regulations .01 — .08 Control of Portland Cement Manufacturing Plants.

Statement of Purpose

The purpose of this action is to create a separate chapter applicable to Portland Cement Manufacturing Plants containing requirements unique to them. The new chapter combines existing requirements in COMAR 26.11.01, .06, and .29 regarding NOx, SOx, visible emissions and particulate matter that apply to Portland cement manufacturing plants into one chapter.

This action establishes slightly more stringent emission NOx limitations based upon recommended limits for cement kilns from the Ozone Transport Commission (OTC) to satisfy Reasonably Available Control Technology (RACT) requirements under the Clean air Act for the 2008 8-hour ozone standard. Older less stringent NOx limits in COMAR 26.11.09.08 will be repealed.

This action also establishes a new method for continuous monitoring of particulate matter emissions for both cement kilns and clinker coolers required by the 2013 National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Portland Cement Manufacturing Industry and Standards of Performance for Portland Cement Plants effective September 1, 2016.

The two Portland cement manufacturing plants in Maryland are required to operate continuous opacity monitors (COMs). EPA has recently added requirements for continuously monitoring

COMAR online: November 5, 2010.

- Repeal of Existing Regulations
- Recodification
- Incorporation by Reference of Documents Requiring DSD Approval
- Reproposal of Substantively Different Text:

: Md.
 R

(vol.) (issue) (page (date)
 nos)

Under Maryland Register
docket no.: --P.

7. Is there emergency text which is identical to this proposal:

Yes No

8. Incorporation by Reference

Check if applicable: Incorporation by Reference (IBR) approval form(s) attached and 18 copies of documents proposed for incorporation submitted to DSD. (Submit 18 paper copies of IBR document to DSD and one copy to AELR.)

9. Public Body - Open Meeting

OPTIONAL - If promulgating authority is a public body, check to include a sentence in the Notice of Proposed Action that proposed action was considered at an open meeting held pursuant to State Government Article, §10-506(c), Annotated Code of Maryland.

OPTIONAL - If promulgating authority is a public body, check to include a paragraph that final action will be considered at an open meeting.

particulate matter in the 2013 National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Portland Cement Manufacturing Industry and Standards of Performance for Portland Cement Plants which provided an alternative monitoring procedure for visible emissions. In this action cement kilns have the option of using continuous opacity monitors or the NESHAP alternative methods of visible emission monitoring for opacity. Clinker coolers and kilns have the option of using continuous opacity monitors or the NESHAP alternative methods of visible emission monitoring for opacity after September 1, 2016. Under these regulations, operation of a COM requires the facility to follow the quality assurance procedures in COMAR 26.11.31.

Background

In an effort to streamline regulations pertaining to Portland Cement Manufacturing Plants, the Maryland Department of the Environment (MDE) is compiling the requirements for these facilities in a separate chapter. This action separates Portland Cement Manufacturing Plants and Natural Gas Compression Stations currently together in COMAR 26.11.29 into two separate regulations: COMAR 26.11.30 Control of Portland Cement Manufacturing Plants and COMAR 26.11.29 Natural Gas Pipeline Compression Stations. The existing COMAR 26.11.06.05 Sulfur Compounds from Other than Fuel-Burning Equipment establishes a concentration standard for SO₂ for cement kilns depending on the location of the plant and the date the plant was constructed. These requirements for SO₂ are being moved into COMAR 26.11.30. The NO_x emission standards and continuous emission monitoring requirements for installations at Portland cement plants were specified in COMAR 26.11.29. These requirements for NO_x are also included in new COMAR 26.11.30

In 2012, EPA designated areas as attainment and nonattainment with respect to the national ambient air quality standard for ozone revised in 2008.

10. Children's Environmental Health and Protection

_ Check if the system should send a copy of the proposal to the Children's Environmental Health and Protection Advisory Council.

11. Certificate of Authorized Officer

I certify that the attached document is in compliance with the Administrative Procedure Act. I also certify that the attached text has been approved for legality by Mary E. Raivel, Assistant Attorney General, (telephone #410-537-3035) on 2/11/15. A written copy of the approval is on file at this agency.

Name of Authorized Officer

Benjamin Grumbles

Title

Acting Secretary of the Environment

Telephone No.

(410) 537-3084

Date

2/19/15

Under the federal Clean Air Act, 42 U.S.C. § 7401 et seq., sources in ozone nonattainment areas classified as moderate and above are subject to a NOx Reasonably Available Control Technology (RACT) requirement. Areas in the Ozone Transport Region are also subject to this requirement regardless of designation. Section 182 of the Clean Air Act requires the Maryland Department of the Environment (MDE) to review and revise NOx RACT requirements in the Maryland State Implementation Plan (SIP) as necessary in light of the new more stringent ambient air quality standards. In reviewing existing NOx RACT requirements for adequacy, MDE considers technological advances and the stringency of the revised ozone standard. In 2007, the Ozone Transport Commission (OTC) compiled a Technical Support Document on Identification and Evaluation of Candidate Control Measures which included recommendations for NOx emission limitations for cement kilns based on the type of kiln. MDE concluded the recommended rates represented RACT for cement kilns in Maryland and these rates will become effective April 1, 2017.

New particulate matter (PM) continuous emission monitoring procedures are specified in EPA's 2013 National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Portland Cement Manufacturing Industry and Standards of Performance for Portland Cement Plants. After September 1, 2016, these facilities will be required to use these procedures to determine compliance with particulate matter standards. The NESHAP procedure uses stack test data to calibrate a PM continuous emission monitor (CEM) and then uses the PM CEM as a Continuous Parametric Monitoring System (CPMS).

The PM CPMS can also be calibrated for use as a parametric monitoring device to determine compliance with opacity standards. The system offers an alternative to COMs for monitoring visible emissions. Under this action MDE

proposes the option to either operate COMs or PM CPMS to monitor visible emissions.. The NESHAP procedures have been integrated into the Visible Emissions and Particulate Matter requirements of the new chapter 30.

Sources Affected and Location

There are two existing Portland cement manufacturing plants in Maryland, one in Carroll County and one in Washington County. The Carroll County plant has a pre-calciner, pre-heater kiln. The Washington County plant is currently modifying their kiln from a long-dry kiln to a pre-calciner, pre-heater kiln and will complete the modification by 2017.

Requirements

This action is to:

1. Combine all of the existing requirements in COMAR 26.11.01, .06, and .29 regarding NO_x, SO_x, visible emissions and particulate matter that apply to Portland cement manufacturing plants into one chapter; and
2. Repeal NO_x emission limitations in COMAR 26.11.09.08 which apply to Portland cement manufacturing plants and establish new NO_x emission limitations based upon recommended control measures for cement kilns from the 2007 Ozone Transport Commission (OTC) Technical Support Document on Identification and Evaluation of Candidate Control Measures; and
3. Add cement kilns to COMAR 26.11.01.10 which delineates the types of facilities that need to operate a COM to measure opacity; and
4. Establish new continuous particulate matter monitoring procedures, as specified in EPA's 2013 National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Portland Cement Manufacturing Industry and Standards of Performance for Portland Cement Plants. The new

procedures will be used to demonstrate compliance with particulate matter emissions limitations and may be used to demonstrate compliance with opacity standards for cement kilns and clinker coolers under the specified circumstances instead of using a COM; and

5. Require cement kilns subject to COM requirements to comply with the Quality Assurance Requirements for COMs in existing COMAR 26.11.31. The Department makes note that under separate action amendments to COMAR 26.11.29 are being proposed. Existing and new requirements for Control of NOx Emissions from Internal Combustion Engines Located at Natural Gas Pipeline Compression Stations will be under COMAR 26.11.29. Existing and new requirements for Portland cement manufacturing plants will be under COMAR 26.11.30.

Expected Emissions Reductions

On and after April 1, 2017, Portland cement kilns will need to meet a NOx emission limitation based upon recommended control measures for cement kilns from the 2007 Ozone Transport Commission (OTC) Technical Support Document on Identification and Evaluation of Candidate Control Measures. The proposed NOx emission rate for long dry kilns is 3.4 pounds of NOx per ton of clinker produced and for pre-calciner kilns, an emissions rate of 2.4 pounds of NOx per ton of clinker produced.

As a result of this action, the Portland cement plant in Carroll County will reduce annual NOx emissions by about 14% or 400 tons based on 2012/2013 production. The Portland cement plant in Washington County will reduce annual NOx emissions by about 53% or 510 tons based on 2012/2013 production.

Comparison to Federal Standards

There is a corresponding federal standard to this proposed action, but the proposed action is not more restrictive or stringent.

Estimate of Economic Impact

I. Summary of Economic Impact.

This action only requires affected sources to increase the amount of ammonia reagent used in existing pollution control equipment to meet the proposed NOx emission limitations in 2017.

The Portland cement plant in Carroll County is a pre-calciner, pre-heater kiln. Currently, the operators inject 600-730 liters/hr of ammonia into their Selective Non-Catalytic Reduction (SNCR) control technology to keep NOx emissions below 2.5 lbs/ton of clinker to ensure compliance with the current 2.8 pounds of NOx per ton of clinker limit. Operating the SNCR costs approximately \$1,000,000 per year. Using a linear equation, the plant would need to inject 760 liters/hr of ammonia to keep their NOx emissions below 2.4 lbs/ton clinker to ensure compliance with a margin of safety. To meet the NOx emission rate of 2.4 lbs/ton clinker produced, the additional ammonia could cost approximately \$150,000 per year.

As part of a federal action, the Portland cement plant in Washington County will be upgrading the kiln to a pre-heater/pre-calciner kiln by September 6, 2016. The kiln will then be required to meet a year round NOx limit of 1.8 lbs NOx/ton of clinker on a 30-day rolling average. The 1.8 lbs NOx/ton per ton of clinker is lower than the 2.4 lbs NOx/ton of clinker in these regulations so the regulations do not have an economic impact on the Washington County facility.

The operation of a continuous particulate matter emissions monitor is required under the federal cement NESHAP. The option to use this instrument to satisfy the COM requirement for monitoring opacity from cement kilns represents a possible cost savings to the facility. Monitoring of

opacity has been required since the early 1990s and is not an additional cost.

II. Types of Economic Impact.	Revenue (R+/R-)	Magnitude
	Expenditure (E+/E-)	
A. On issuing agency:	NONE	
B. On other State agencies:	NONE	
C. On local governments:	NONE	
	Benefit (+) Cost (-)	Magnitude
D. On regulated industries or trade groups:		
Compliance Costs	(-)	\$150,000
E. On other industries or trade groups:		
MD Contractors	(+)	Indeterminate
F. Direct and indirect effects on public:	NONE	

III. Assumptions. (Identified by Impact Letter and Number from Section II.)

D. Ammonia reagent injection with the existing control technology is required to meet the NOx emission rate.

E. Installation of technology and maintenance is usually performed by specially trained tradesmen. The magnitude of demand is unknown.

Economic Impact on Small Businesses

The proposed action has minimal or no economic impact on small businesses.

Impact on Individuals with Disabilities

The proposed action has no impact on individuals with disabilities.

Opportunity for Public Comment

Comments may be sent to Randy E. Mosier - see comments below, , , , or call , or email to , or fax to . Comments will be accepted through . A public hearing will be held, The Department of the Environment will hold a public hearing on the proposed action on May 19, 2015 at 10 a.m. at the Department of the Environment, 1800 Washington Boulevard, 1st Floor Conference Rooms, Baltimore, Maryland 21230-1720.

Interested persons are invited to attend and express their views. Comments may be sent to Mr. Randy Mosier, Chief of the Regulation Division, Air and Radiation Management Administration, Department of the Environment, 1800 Washington Boulevard, Suite 730, Baltimore, Maryland 21230-1720, or email to Randy.mosier@maryland.gov. Comments must be received not later than May 19, 2015, or be submitted at the hearing. For more information, call Randy Mosier at (410) 537-4488.

Copies of the proposed action and supporting documents are available for review at the following locations:

- The Department of the Environment's website at:
<http://www.mde.state.md.us/programs/regulations/air/Pages/reqcomments.aspx>
- The Air and Radiation Management Administration offices; and
- Regional offices of the Department in Cumberland and Salisbury.

Anyone needing special accommodations at the public hearing should contact the Department's Fair Practices Office at (410) 537- 3964.

TTY users may contact the Department through the Maryland Relay Service at 1-800-735-2258.

Economic Impact Statement Part C

A. Fiscal Year in which regulations will become effective: FY 2016

B. Does the budget for the fiscal year in which regulations become effective contain funds to implement the regulations?

Yes

C. If 'yes', state whether general, special (exact name), or federal funds will be used:

A combination of Maryland Clean Air Funds (special) and Air Pollution Control Program grant funds (federal) will be used.

D. If 'no', identify the source(s) of funds necessary for implementation of these regulations:

E. If these regulations have no economic impact under Part A, indicate reason briefly:

F. If these regulations have minimal or no economic impact on small businesses under Part B, indicate the reason and attach small business worksheet.

There is no economic impact on small businesses. Neither of the two facilities is categorized as a small business.

G. Small Business Worksheet:

Attached Document:

Draft 12-16-14
Downloaded 11-05-10
Check Downloaded 01-27-15

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 11 AIR QUALITY

Chapter 01 General Administrative Provisions

Authority: Environment Article, §§1-101, 1-404, 2-101—2-103, 2-301—2-303, 10-102, and 10-103, Annotated Code of Maryland

.10 Continuous Opacity Monitoring Requirements.

A. Applicability and Exceptions.

(1) – (4) (text unchanged)

(5) *The owner or operator of a cement manufacturing installation may discontinue use of a COM when a PM CPMS is installed and operated in accordance with the requirements of COMAR 26.11.30.*

B. – E. (text unchanged)

F. Fuel burning equipment subject to the COM requirements in COMAR 26.11.09.05 *and cement kilns subject to the COM requirements in COMAR 26.11.30* are subject to the COM requirements contained in COMAR 26.11.31.

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 11 AIR QUALITY

Chapter 09 Control of Fuel-Burning Equipment, Stationary Internal Combustion Engines, and Certain Fuel-Burning Installations

Authority: Environment Article, §§1-101, 1-404, 2-101—2-103, 2-301—2-303, 10-102, and 10-103, Annotated Code of Maryland

.08 Control of NO_x Emissions for Major Stationary Sources.

A.—G. (text unchanged)

H. Requirements for [Cement Manufacturing Facilities,] Municipal Waste Combustors, and Hospital, Medical, and Infectious Waste Incinerators.

(1) A person who owns or operates a [cement manufacturing facility or a] municipal waste combustor shall install, operate, and maintain a CEM for NO_x emissions.

[(2) NO_x emissions from cement manufacturing kilns may not exceed the following total hourly NO_x emissions as determined on a 30-day rolling average of the daily average:

(a) 1,000 pounds for a facility with a total kiln capacity of 600,000 tons per year or less; and

(b) 1,800 pounds for a facility with a total kiln capacity greater than 600,000 tons per year.]

[(3)] (2) NO_x emissions from municipal waste combustors may not exceed the NO_x emissions standards in *COMAR 26.11.08.07 and COMAR 26.11.08.08* [(205 ppm 24-hour average)] or applicable Prevention of Significant Deterioration limits, whichever is more restrictive.

[(4)] (3) NO_x emissions from hospital, medical, and infectious waste incinerators as defined in *COMAR 26.11.08.01B(18)* may not exceed the NO_x emission standards in *COMAR 26.11.08.08-1A(2)* (250 ppm 24-hour average) as applicable.

I. Requirements for Glass Melting Furnaces [and Internal Combustion Engines at Natural Gas Pipeline Stations].

(1)—(2) (text unchanged)

[(3) A person who owns or operates an internal combustion engine at a natural gas pipeline station with a capacity factor over 15 percent shall perform either parametric optimization or engine rebuild to meet the following emission standards:

(a) Facilities with five or less engines shall meet a combined maximum hourly emission rate of 300 pounds per hour; and

(b) Facilities with more than five engines shall meet a combined maximum hourly emissions rate of 566 pounds per hour.

(4) Records demonstrating performance of parametric optimization shall be maintained on site for at least 2 years and made available to the Department upon request.]

J.—K. (text unchanged)

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 11 AIR QUALITY

Chapter 30 Control of Portland Cement Manufacturing Plants

Authority: Environment Article, §§1-101, 1-404, 2-101—2-103, 2-301—2-303, 10-102, and 10-103, Annotated Code of Maryland

ALL NEW MATTER

.01 Scope. *This chapter contains all of the general requirements that apply to Portland cement manufacturing plants. New or modified cement plants may be subject to more restrictive requirements that are included in a permit issued by the Department. Portland cement manufacturing plants subject to this chapter may also be subject to federal New Source Performance Standards under 40CFR Part 60 Subpart F and National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry under 40CFR Part 63 Subpart LLL.*

.02 Applicability.

A. *The requirements of this chapter apply to cement kilns and other installations located at Portland cement manufacturing plants.*

B. *Any source which is subject to the provisions of this chapter may also be subject to the provisions of any other chapter. However, when this chapter establishes an emission standard for a specific installation which differs from the general emission standards in COMAR 26.11.06.01--09, this chapter takes precedence.*

.03 Definitions.

A. *Definitions. In this chapter, the following terms have the meanings indicated.*

B. *Terms defined.*

(1) *"Cement kiln" means an installation, including any associated pre-heater or pre-calciner devices, that produces clinker by heating limestone and other materials to produce Portland cement.*

(2) *"Cement manufacturing installation" means process equipment used for subsequent production of Portland cement.*

(3) *"Clinker cooler" means an installation into which clinker product leaving the kiln is placed to be cooled by air supplied by a forced air draft or natural draft supply system.*

(4) *"Long dry kiln" means a cement kiln that does not have a pre-calciner and in which dry starting raw materials are fed into the kiln.*

(5) *"PM continuous parametric monitoring system" (CPMS) means a continuous emission monitoring system used to establish a parameter range for the purposes of demonstrating compliance.*

(6) *"Pre-calciner kiln" means a cement kiln that contains a pre-calciner at the bottom of the pre-heater tower before the materials enter the kiln.*

(7) *"30-day rolling average" means the arithmetic average of all valid hourly NO_x emission rates of the previous 720 valid hours on a rolling basis.*

(8) *"30 process operating day" means:*

(a) *The first day after the compliance date following completion of the field testing and data collection that demonstrates that the CPMS or CEMS has satisfied the relevant CPMS performance evaluation or CEMS performance specification acceptance criteria.*

(b) *For purposes of this chapter, the performance test period is complete at the end of the 30th consecutive operating day.*

.04 Particulate Matter.

A. *The owner or operator of a cement manufacturing installation may not cause or permit the discharge of emissions of particulate matter to exceed the limits in §B of this regulation.*

B. *Emission Limits.*

(1) *Areas I, II, V, and VI. In Areas I, II, V, and VI, a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.05 grains per standard cubic foot dry.*

(2) *Areas III and IV. In Areas III and IV, a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.03 grains per standard cubic foot dry.*

(3) *Compliance with the particulate matter standards of §.04B(1) and (2) shall be demonstrated by a 3-run stack test using Method 5 or Method 5I of 40 CFR part 60.*

C. *Particulate matter monitoring requirements for cement kilns and clinker coolers. On or after September 1, 2016, the owner or operator of a cement kiln or clinker cooler at a Portland cement manufacturing plant shall:*

(1) *Use a PM continuous parametric monitoring system (CPMS) to establish a site-specific operating parameter limit corresponding to the results of the performance test as required in §.04B(3) demonstrating compliance with the PM limits in §.04B(1) and (2);*

(2) *Conduct the performance test as required in §.04B(3) using Method 5 or Method 5I of 40 CFR part 60;*

(3) *Use the PM CPMS to demonstrate continuous compliance with the site-specific operating parameter limit established in §.04C(1);*

(4) Repeat the performance test as required in §.04B(3) annually and reassess and adjust the site-specific operating parameter limit of §.04C(1) in accordance with the results of the performance test using the procedures in 40 CFR 63 - § 63.1349(b)(1) (i) through (ix); and

(5) For any exceedance of the established operating parameter limit of §.04C(1) on a 30 process operating day basis, the operator of a Portland cement manufacturing plant shall follow the procedures in 40 CFR 63 - § 63.1350(b)(iii) and (iv).

.05 Visible Emission Standards.

A. The owner or operator of a cement manufacturing installation may not cause or permit the discharge of emissions which exceed the visibility standards in §B of this regulation.

B. Visibility Standards.

(1) In Areas I, II, V, and VI a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity.

(2) In Areas III and IV a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is visible to human observers.

(3) Compliance with the visibility standards of §.05B(1) and (2) shall be demonstrated by a visible emission observation using Method 9 of 40 CFR part 60.

C. Visible Emission monitoring requirements for cement kilns. The owner or operator of a cement kiln at a Portland cement manufacturing plant shall either:

(1) Use a COM in accordance with the requirements of COMAR 26.11.01.10; or

(2) Use a PM continuous parametric monitoring system (CPMS) to establish a site-specific operating parameter limit for continuous visible emission compliance determinations in accordance with §.04C(1) —(5) .

D. Visible Emission monitoring requirements for clinker coolers. On or after September 1, 2016, the owner or operator of a clinker cooler at a Portland cement manufacturing plant shall either:

(1) Use a COM in accordance with the requirements of COMAR 26.11.01.10; or

(2) Use a PM continuous parametric monitoring system (CPMS) to establish a site-specific operating parameter limit for continuous visible emission compliance determinations in accordance with §.04C(1) —(5) .

.06 Sulfur Compounds.

A. Sulfur Dioxide (SO₂):

(1) Areas I, II, V, and VI. In Areas I, II, V, and VI, an owner or operator of a cement manufacturing installation may not cause emissions into the atmosphere with an SO₂ concentration greater than 2,000 ppm for sources constructed before January 17, 1972 or 500 ppm for sources constructed on or after January 17, 1972.

(2) Areas III and IV. In Areas III and IV, an owner or operator of a cement manufacturing installation may not cause emissions into the atmosphere with an SO₂ concentration greater than 2,000 ppm for sources constructed before February 21, 1971 or 500 ppm for sources constructed on or after February 21, 1971.

B. Sulfuric Acid and Sulfur Trioxide.

(1) Areas I, II, V, and VI. In Areas I, II, V, and VI, an owner or operator of a cement manufacturing installation may not cause emissions of sulfuric acid, sulfur trioxide, or any combination of them, in excess of 70 milligrams per cubic meter reported as sulfuric acid, for any source constructed before January 17, 1972 or 35 milligrams per cubic meter reported as sulfuric acid, for any source constructed on or after January 17, 1972.

(2) Areas III and IV. In Areas III and IV, an owner or operator of a cement manufacturing installation may not cause emissions of sulfuric acid, sulfur trioxide, or any combination of them, in excess of 70 milligrams per cubic meter reported as sulfuric acid for any source constructed before February 21, 1971 or 35 milligrams per cubic meter reported as sulfuric acid for any source constructed on or after February 21, 1971.

C. All calculations of emissions for §§A and B of this regulation shall be adjusted to standard conditions and 7 percent oxygen.

.07 Nitrogen Oxides (NO_x).

A. A person who owns or operates a cement kiln at a Portland cement manufacturing plant shall meet the applicable NO_x emission standards:

(1) For long dry kilns, maximum emissions of 5.1 pounds of NO_x per ton of clinker produced; and

(2) For pre-calciner kilns, maximum emissions of 2.8 pounds of NO_x per ton of clinker produced.

B. On and after April 1, 2017, the requirements in §A of this regulation no longer apply and cement kilns shall meet the applicable NO_x emission standards in §C of this regulation.

C. On and after April 1, 2017 a person who owns or operates a cement kiln at a Portland cement manufacturing plant shall meet the applicable NO_x emission standards:

(1) For long dry kilns, maximum emissions of 3.4 pounds of NO_x per ton of clinker produced; and

(2) For pre-calciner kilns, maximum emissions of 2.4 pounds of NO_x per ton of clinker produced.

D. Compliance with the emission standards in §§A and C of this regulation shall be demonstrated as a 30-day rolling average.

.08 NO_x Continuous Emission Monitoring Requirements.

- A. The owner or operator of a Portland cement manufacturing plant shall:*
- (1) Continuously monitor NOx emissions with a continuous emissions monitor (CEM) system in accordance with COMAR 26.11.01.11B(1) and (4) and C;*
 - (2) Collect NOx emissions data that was obtained pursuant to §A(1) of this regulation; and*
 - (3) Submit emissions data collected pursuant to §A(2) of this regulation to the Department as specified under COMAR 26.11.01.11E(2).*
- B. The NOx emissions data collected pursuant to §A(2) of this regulation shall be used to demonstrate compliance with the applicable NOx emission rate in Regulation .07 of this chapter.*

END ALL NEW MATTER