



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION AIR QUALITY PROGRAM

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Issue Da	Date:	Effective Date:

Expiration Date:

In accordance with the provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and 25 Pa. Code Chapter 127, the Owner, [and Operator if noted] (hereinafter referred to as permittee) identified below is authorized by the Department of Environmental Protection (Department) to construct, install, modify or reactivate the air emission source(s) more fully described in the site inventory list. This Facility is subject to all terms and conditions specified in this plan approval. Nothing in this plan approval relieves the permittee from its obligations to comply with all applicable Federal, State and Local laws and regulations.

The regulatory or statutory authority for each plan approval condition is set forth in brackets. All terms and conditions in this permit are federally enforceable unless otherwise designated as "State-Only" requirements.

Plan Approval No. 37-00013G

Federal Tax Id - Plant Code: 26-3068146-1

Owner Information

Name: CEMEX CONSTRUCTION MATERIALS ATLANTIC, LLC

Mailing Address: 2001 PORTLAND PARK WAMPUM, PA 16157-3913

Plant Information

Plant: WAMPUM CEMENT PLT/LAWRENCE

Location: 37 Lawrence County 37923 Wampum Borough

SIC Code: 3241 Manufacturing - Cement, Hydraulic

Operator

Name: JEANA WHITE [If different from owner]

Mailing Address: 1501 BELVEDERE RD

WEST PALM BEACH, FL 33406-1501

Responsible Official

Name: EDGAR ANGELES

Title: EXEC VP CEMENT OPR & TECH

Phone: (713) 722 - 5817 Email: edgar.angeles@cemex.com

Plan Approval Contact Person

Name: LAURA L MYERS Title: SR CORP ENV MGR Phone: (714) 553 - 8191

DEP Auth ID: 1320403

one: (714) 553 - 8191 Email: laura.myers@cemex.com

[Signature] _____

ERIC A. GUSTAFSON, NORTHWEST REGION AIR PROGRAMMANAGER





Plan Approval Description

The plant modernization project proposes a maximum production capacity of 3,120 short tons of clinker per day (stpd) on a 30 operating day rolling average and includes the installation of the following new equipment and processes:

- One (1), 3,120 stpd, five (5) stage, preheater/calciner kiln system equipped with Low NOx burners, selective non-catalytic reduction (SNCR), and with NOx, SO2, CO, O2, and THC CEMS and opacity COMS.
- One (1), 3,120 stpd, clinker cooler
- One (1), 290 short tons/hour (stph), vertical, raw meal grinding system
- One (1), 20 short ton/hour (stph), ball mill, indirect coal grinding system
- One (1), cooling tower
- One (1), 15,200 gallon aqueous ammonia (<19%) tank
- One (1), 1000 KW emergency generator (1,341 bhp)
- One (1), fire system pump engine (183 bhp)
- One (1), main fabric filter dust collector
- · Various other dust collectors
- Vehicle and truck traffic on paved roads.
- · Other ancillary equipment including material handling and conveying

The proposed new equipment replaces three (3) existing, coal fired long dry kiln, three (3) clinker coolers, two (2) raw meal grinding systems, two (2) stoker coal furnaces, three (3) coal grinding systems, multiple dust collectors, electrostatic precipitators, and a gravel bed filter. The project also proposes to refurbish and reactivate other existing equipment that includes the Finish Mills #1 & #2 and fuel tanks.

A list of deactivated sources has been identified in the plan approval application and are to be removed from the permit. These include Source ID #s: 112, 131, 132, 150, 155, 157,161 -165, 167- 171, 173, 174, 179, 195, 196, 198, 199, 201, 202, 205, 208, 220, 221, and 223 – 234.



SECTION A. Table of Contents

Section A. Facility/Source Identification

Table of Contents
Plan Approval Inventory List

Section B. General Plan Approval Requirements

- #001 Definitions
- #002 Future Adoption of Requirements
- #003 Plan Approval Temporary Operation
- #004 Content of Applications
- #005 Public Records and Confidential Information
- #006 Plan Approval terms and conditions.
- #007 Transfer of Plan Approvals
- #008 Inspection and Entry
- #009 Plan Approval Changes for Cause
- #010 Circumvention
- #011 Submissions
- #012 Risk Management
- #013 Compliance Requirement

Section C. Site Level Plan Approval Requirements

- C-I: Restrictions
- C-II: Testing Requirements
- C-III: Monitoring Requirements
- C-IV: Recordkeeping Requirements
- C-V: Reporting Requirements
- C-VI: Work Practice Standards
- C-VII: Additional Requirements
- C-VIII: Compliance Certification
- C-IX: Compliance Schedule

Section D. Source Level Plan Approval Requirements

- D-I: Restrictions
- D-II: Testing Requirements
- D-III: Monitoring Requirements
- D-IV: Recordkeeping Requirements
- D-V: Reporting Requirements
- D-VI: Work Practice Standards
- D-VII: Additional Requirements

Note: These same sub-sections are repeated for each source!

Section E. Source Group Restrictions

- E-I: Restrictions
- E-II: Testing Requirements
- E-III: Monitoring Requirements
- E-IV: Recordkeeping Requirements
- E-V: Reporting Requirements
- E-VI: Work Practice Standards
- E-VII: Additional Requirements

Section F. Alternative Operating Scenario(s)

F-I: Restrictions

- F-II: Testing Requirements
- F-III: Monitoring Requirements





SECTION A. Table of Contents

F-IV: Recordkeeping Requirements F-V: Reporting Requirements F-VI: Work Practice Standards F-VII: Additional Requirements

Section G. Emission Restriction Summary

Section H. Miscellaneous







Source ID	Source Name	Capacity/Throughput	Fuel/Material
178A	RAILCAR LOADING		
180	LIMESTONE PILE		
181	COAL PILE		
184	UNPAVED ROADS		
185	PAVED ROADS		
209	EAST CEMENT SILOS		
210	WEST CEMENT SILOS	47.000 Tons/HR	
213	SOUTH PACKER		
214	NORTH PACKER		
215	MASONRY PACKER		
216	EAST/WEST TRUCK LOADING		
217	NEW TRUCK LOADING		
218	RAILCAR LOADING		
252	RAW MATERIAL UNLOADING- LIMESTONE, COAL, SLAG		
253	RAW MATERIAL UNLOADING-ADDITIVES		
254	RAW MATERIAL STORAGE		
255	RAW MATERIAL STORAGE FEED- ADDITIVES		
256	RAW MATERIAL STORAGE RECLAIM TO RAW MILL FEED-LIMESTONE		
257	RAW MATERIAL STORAGE RECLAIM TO RAW MILL FEED - ADDIT/LIMEST		
258	RAW MILL FEED INCL. RECYCLE		
259	RAW MILL		
260	BLENDING (HOMOGENIZING) SILOS		
261	BLENDING SILO RECLAIM TO PREHEATER KILN FEED		
262	COAL MILL & KILN BURNER & CALCINER FEED STORAGE & RECLAIM		
263	PREHEATER/PRECALCINER KILN	N/A	Bituminous
		N/A	#2 Oil
		N/A	
		N/A	
		N/A	
264	CLINKER COOLER	N/A	CLINKER SHORT TONS
265	MAIN DUST COLLECTOR DUST RECLAIM		
266	CLINKER DOME STORAGE AND RECLAIM		
267	CLINKER DOME RECLAIM FEED TO CLINKER SILO#15		
268	CLINKER DOME RECLAIM FEED TO MATL STORAGE BLG		
269	CLINKER DOME RECLAIM FEED TO CLINKER SILO #1		
270	STORAGE RECLAIM FEED TO FINISH MILL #1		
271	FINISH MILL #1		
272	STORAGE RECLAIM FEED TO RAW MILL #2		
273	FINISH MILL #2		
274	EMERGENCY DIESEL ENGINE 1475 BHP		







Source ID		Capacity/Throughput	Fuel/Material
275	FIRE PUMP ENGINE 183 BHP		
СТ	COOLING TOWER		
C178	RAILCAR LOADING FABRIC FILTER		
C209	EAST CEMENT SILO BAGHOUSE		
C210	WEST CEMENT SILOS BAGHOUSE		
C213	SOUTH PACKER BAGHOUSE		
C214	NORTH PACKER BAGHOUSE		
C215	MASONRY PACKER BAGHOUSE		
C216	EAST/WEST TRUCK LOADING BAGHOUSE		
C217	NEW TRUCK LOADING BAGHOUSE		
C218	RAILCAR LOADING BAGHOUSE		
C254A	RAW MATERIAL STORAGE FEED- BAGHOUSE A		
C254B	RAW MATERIAL STORAGE FEED- BAGHOUSE B		
C254C	RAW MATERIAL STORAGE FEED- BAGHOUSE C		
C254D	RRAW MATERIAL STORAGE FEED- BAGHOUSE D		
C254E	RAW MATERIAL STORAGE FEED- BAGHOUSE E		
C254F	RAW MATERIAL STORAGE FEED- BAGHOUSE F		
C255A	RAW MATERIAL STORAGE FEED-ADDITIVES- BAGHOUSE		
C255B	RAW MATERIAL STORAGE FEED- ADDITIVE BAGHOUSE B		
C256A	RAW MATERIAL STORAGE RECLAIM TO RAW MILL FEED BAGHOUSE A		
C256B	RAW MATERIAL STORAGE RECLAIM TO RAW MILL FEED BAGHOUSE B		
C256C	RAW MATERIAL STORAGE RECLAIM TO RAW MILL FEED BAGHOUSE C		
C256D	RAW MATERIAL STORAGE RECLAIM TO RAW MILL FEED BAGHOUSE D		
C257A	RAW MATERIAL STORAGE RECLAIM TO RAW MILL FEED - BAGHOUSE A		
C257B	RAW MATERIAL STORAGE RECLAIM TO RAW MILL FEED - BAGHOUSEB		
C258A	RAW MILL FEED INCL. RECYCLE- BAGHOUSE A		
C258B	RAW MILL FEED INCL. RECYCLE- BAGHOUSE B		
C259A	RAW MILL BAGHOUSE A		
C259B	RAW MILL BAGHOUSE B		
C260A	BLENDING (HOMOGENIZING) SILOS-BAGHOUSE A		
C260B	BLENDING (HOMOGENIZING) SILOS-BAGHOUSE B		
C260C	BLENDING (HOMOGENIZING) SILOS-BAGHOUSE C		
C260D	BLENDING (HOMOGENIZING) SILOS-BAGHOUSE D		
C260E	BLENDING (HOMOGENIZING) SILOS-BAGHOUSE E		
C261A	BLENDING SILO RECLAIM TO PREHEATER KILN FEED-BAGHOUSE A		
C261B	BLENDING SILO RECLAIM TO PREHEATER KILN FEED BAGHOUSE B		
C262A	SOURCE 262 BAGHOUSE A		
C262B	SOURCE 262 BAGHOUSE B		
C262C	SOURCE 262 BAGHOUSE C		
	-		







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Source II	Source Name	Capacity/Throughput	Fuel/Material
C262D	SOURCE 262 BAGHOUSE D		
C263A	PREHEATER/PRECALCINER KILN		
C263B	MAIN KILN STACK - LIME CONTROL SYSTEM		
C263C	MAIN KILN STACK-ACTIVATED CARBON SYSTEM		
C263D	PREHEATER/PRECALCINER BAGHOUSE D		
C263E	PREHEATER/PRECALCINER BAGHOUSE E		
C263F	PREHEATER/PRECALCINER BAGHOUSE F		
C263G	PREHEATER/PRECALCINER BAGHOUSE G		
C263H	PREHEATER/PRECALCINER BAGHOUSE H		
C263I	PREHEATER/PRECALCINER BAGHOUSE I		
C263J	PREHEATER/PRECALCINER BAGHOUSE J		
C263K	PREHEATER/PRECALCINER BAGHOUSE K		
C264A	CLINKER COOLER FABRIC FILTER A-TBD		
C265A	MAIN DUST COLLECTOR DUST RECLAIM BAGHOUSE A		
C265B	MAIN DUST COLLECTOR DUST RECLAIM BAGHOUSE B		
C265C	MAIN DUST COLLECTOR DUST RECLAIM BAGHOUSE C		
C266A	CLINKER DOME STORAGE AND RECLAIM BAGHOUSE A		
C266B	CLINKER COOLER BAGHOUSE B TBD		
C266C	CLINKER DOME STORAGE AND RECLAIM BAGHOUSE C		
C266D	CLINKER DOME STORAGE AND RECLAIM BAGHOUSE D		
C266E	CLINKER DOME STORAGE AND RECLAIM BAGHOUSE E		
C266F	CLINKER DOME STORAGE AND RECLAIM BAGHOUSE F		
C266G	CLINKER DOME STORAGE AND RECLAIM BAGHOUSE G		
C266H	CLINKER DOME STORAGE AND RECLAIM BAGHOUSE H		
C268A	CLINKER DOME RECLAIM FEED TO MATL STORAGE BLG BAGHOUSE A		
C268B	CLINKER DOME RECLAIM FEED TO MATL STORAGE BLG BAGHOUSE B		
C270A	STORAGE RECLAIM FEED TO FINISH MILL #1 BAGHOUSE A		
C270B	STORAGE RECLAIM FEED TO FINISH MILL #1 BAGHOUSE B		
C271A	FINISH MILL #1 BAGHOUSE A		
C271B	FINISH MILL #1 BAGHOUSE B		
C272A	STORAGE RECLAIM FEED TO FINISH MILL #2 BAGHOUSE A		
C272B	STORAGE RECLAIM FEED TO FINISH MILL #2 BAGHOUSE B		
C273A	FINISH MILL #2 BAGHOUSE A		
C273B	FINISH MILL #2 BAGHOUSE B		
C273C	FINISH MILL #2 BAGHOUSE C		
S178A	RAILCAR LOADING FABRIC FILTER STACK		



DEP Auth ID: 1320403





SECTION A. Plan Approval Inventory List

	Train Approval inventory List		
Source ID	Source Name	Capacity/Throughput	Fuel/Material
S209	EAST SILO B.H. EXHAUST		
S210	WEST SILO B.H. EXHAUST		
S213	SOUTH PACKER B.H. EXHAUST		
S214	NORTH PACKER B.H. EXHAUST		
S215	MASONRY PACKER B.H. EX.		
S216	TRUCK LOADING B.H. EX.		
S217	NEW TRUCK LOAD B.H. EX.		
S218	RAILCAR LOAD B.H. EXHAUST		
S254A	RAW MATERIAL STORAGE FEED- LIMESTONE, COAL, SLAG		
S254B	RAW MATERIAL STORAGE FEED- BAGHOUSE B		
S254C	RAW MATERIAL STORAGE FEED- BAGHOUSE C		
S254D	RAW MATERIAL UNLOADING- BAGHOUSE D		
S254E	RAW MATERIAL STORAGE FEED- BAGHOUSE E		
S254F	RAW MATERIAL STORAGE FEED- BAGHOUSE F		
S255A	RAW MATERIAL STORAGE FEED- ADDITIVE- BAGHOUSE A		
S255B	RAW MATERIAL STORAGE FEED-ADDITIVES- BAGHOUSE B		
S256A	RAW MATERIAL STORAGE RECLAIM TO RAW MILL FEED BAGHOUSE A		
S256B	RAW MATERIAL STORAGE RECLAIM TO RAW MILL FEED BAGHOUSEB		
S256C	RAW MATERIAL STORAGE RECLAIM TO RAW MILL FEED BAGHOUSE C		
S256D	RAW MATERIAL STORAGE RECLAIM TO RAW MILL FEED BAGHOUSE D		
S257A	RAW MATERIAL STORAGE RECLAIM TO RAW MILL FEED - BAGHOUSE A		
S257B	RAW MATERIAL STORAGE RECLAIM TO RAW MILL FEED - BAGHOUSE B		
S258A	RAW MILL FEED INCL. RECYCLE- BAGHOUSE A STACK		
S258B	RAW MILL FEED INCL. RECYCLE- BAGHOUSE B STACK		
S259A	RAW MILL BAGHOUSE A STACK		
S259B	RAW MILL BAGHOUSE B STACK		
S260A	BLENDING (HOMOGENIZING) SILOS-BAGHOUSE A		
S260B	BLENDING (HOMOGENIZING) SILOS-BAGHOUSE B STACK		
S260C	BLENDING (HOMOGENIZING) SILOS-BAGHOUSE C		
S260D	BLENDING (HOMOGENIZING) SILOS-BAGHOUSE D STACK		
S260E	BLENDING (HOMOGENIZING) SILOS-BAGHOUSE E		
S261A	BLENDING SILO RECLAIM TO PREHEATER KILN FEED BAGHOUSE A STAC		
S261B	BLENDING SILO RECLAIM TO PREHEATER KILN FEED BAGHOUSE B STAC		
S262A	SOURCE 262 BAGHOUSE A STACK		
S262B	SOURCE 262 BAGHOUSE B STACK		

Page 8

DEP PF ID: 246188







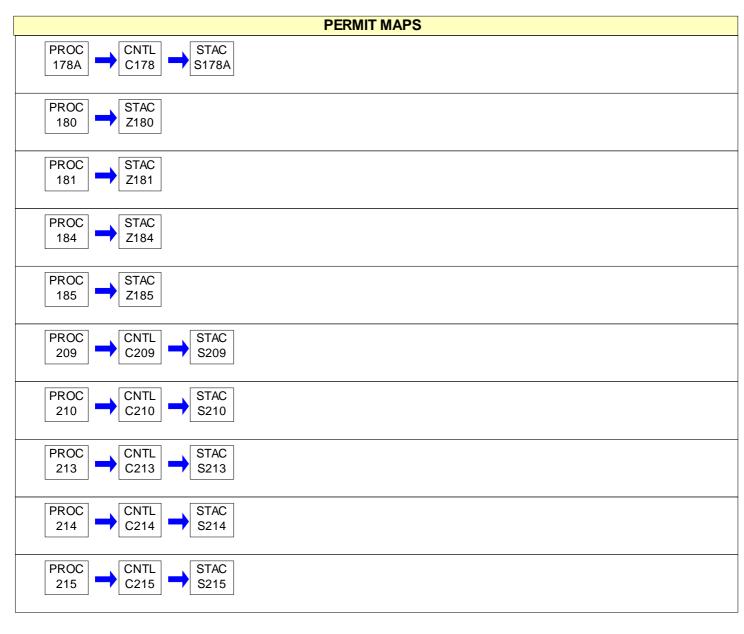
Source ID	Source Name	Capacity/Throughput	Fuel/Material
S262C	SOURCE 262 BAGHOUSE C STACK		i devinaterial
S262D	SOURCE 262 BAGHOUSE D STACK		
S263D	PREHEATER/PRECALCINER KILN BAGHOUSE D		
02000	STACK		
S263E	PREHEATER/PRECALCINER BAGHOUSE E STACK		
S263F	PREHEATER/PRECALCINER BAGHOUSE F STACK		
S263G	PREHEATER/PRECALCINER BAGHOUSE G STACK		
S263H	PREHEATER/PRECALCINER BAGHOUSE H STACK		
S263I	PREHEATER/PRECALCINER BAGHOUSE E STACK		
S263J	PREHEATER/PRECALCINER BAGHOUSE J STACK		
S263K	PREHEATER/PRECALCINER BAGHOUSE K STACK		
S264A	CLINKER COOLER BAGHOUSE A STACK		
S265A	MAIN DUST COLLECTOR DUST RECLAIM		
	BAGHOUSE STACK		
S265B	MAIN DUST COLLECTOR DUST RECLAIM		
S265C	BAGHOUSE B STACK MAIN DUST COLLECTOR DUST RECLAIM		
02000	BAGHOUSE C STACK		
S266A	CLINKER DOME STORAGE AND RECLAIM		
S266B	BAGHOUSE A STACK CLINKER COOLER BAGHOUSE B STACK		
S266C	CLINKER DOME STORAGE AND RECLAIM		
02000	BAGHOUSE C STACK		
S266D	CLINKER DOME STORAGE AND RECLAIM		
S266E	BAGHOUSE D STACK CLINKER DOME STORAGE AND RECLAIM		
3200E	BAGHOUSE E STACK		
S266F	CLINKER DOME STORAGE AND RECLAIM		
00000	BAGHOUSE F STACK CLINKER DOME STORAGE AND RECLAIM		
S266G	BAGHOUSE G STACK		
S266H	CLINKER DOME STORAGE AND RECLAIM		
00004	BAGHOUSE H STACK		
S268A	CLINKER DOME RECLAIM FEED TO MATL STORAGE BLG BAGHOUSE A STA		
S268B	CLINKER DOME RECLAIM FEED TO MATL		
	STORAGE BLG BAGHOUSE B STA		
S270A	STORAGE RECLAIM FEED TO FINISH MILL #1 BAGHOUSE A STACK		
S270B	STORAGE RECLAIM FEED TO FINISH MILL #1		
	BAGHOUSE B STACK		
S271A	FINISH MILL #1 BAGHOUSE A STACK		
S271B	FINISH MILL #1 BAGHOUSE B STACK		
S272A	STORAGE RECLAIM FEED TO FINISH MILL #2 BAGHOUSE A STACK		
S272B	STORAGE RECLAIM FEED TO FINISH MILL #2 BAGHOUSE B		
S273A	FINISH MILL #2 BAGHOUSE A STACK		
S273B	FINISH MILL #2 BAGHOUSE B STACK		
S273C	FINISH MILL #2 BAGHOUSE C STACK		
S274	EMERGENCY ENGINES STACK		





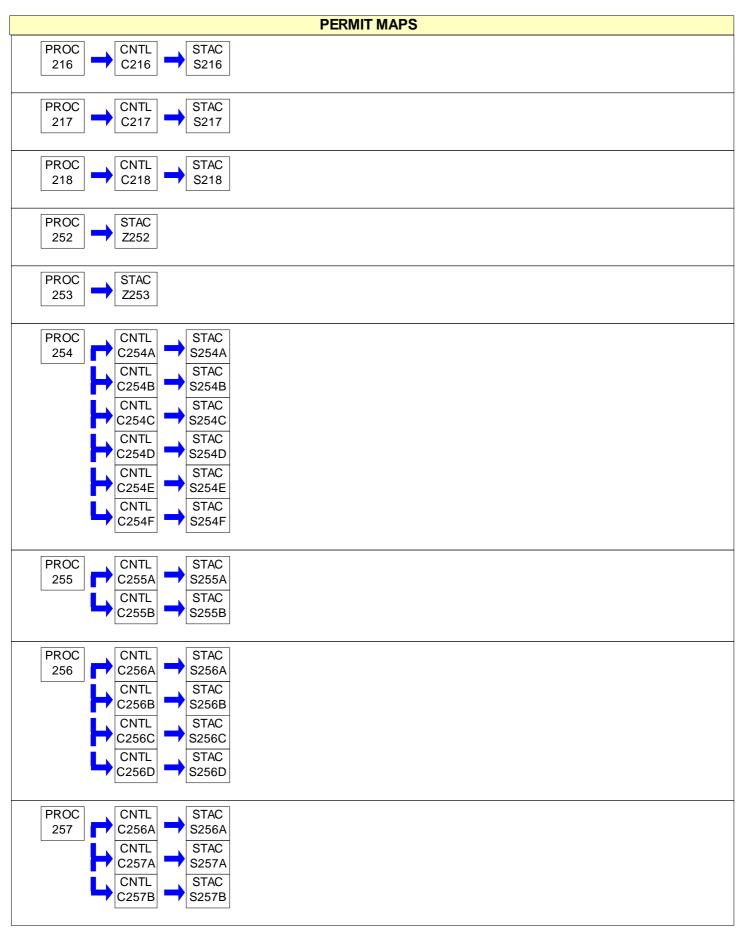


Source ID	Source Name	Capacity/Throughput	Fuel/Material
S275	FIRE PUMP STACK		
Z180	LIMESTONE PILE FUGITIVES		
Z181	COAL PILE FUGITIVES		
Z184	UNPAVED ROAD FUGITIVES		
Z185	PAVED ROADS FUGITIVES		
Z252	RAW MATERIAL UNLOADING- LIMESTONE, COAL, SLAG		
Z253	RAW MATERIAL UNLOADING- ADDITIVES		
Z270	STORAGE RECLAIM FEED TO FINISH MILL #1 FUGITIVE		
Z272	STORAGE RECLAIM FEED TO FINISH MILL #2 FUGITIVE		



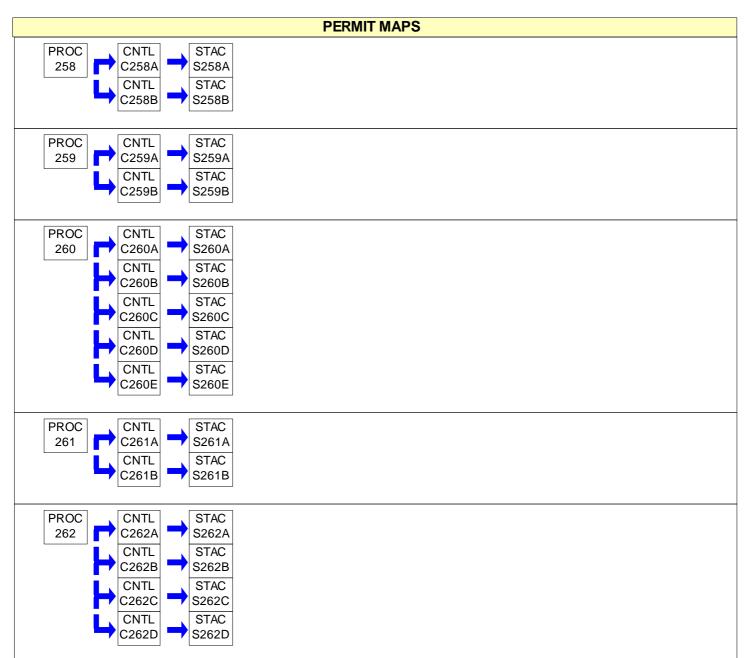








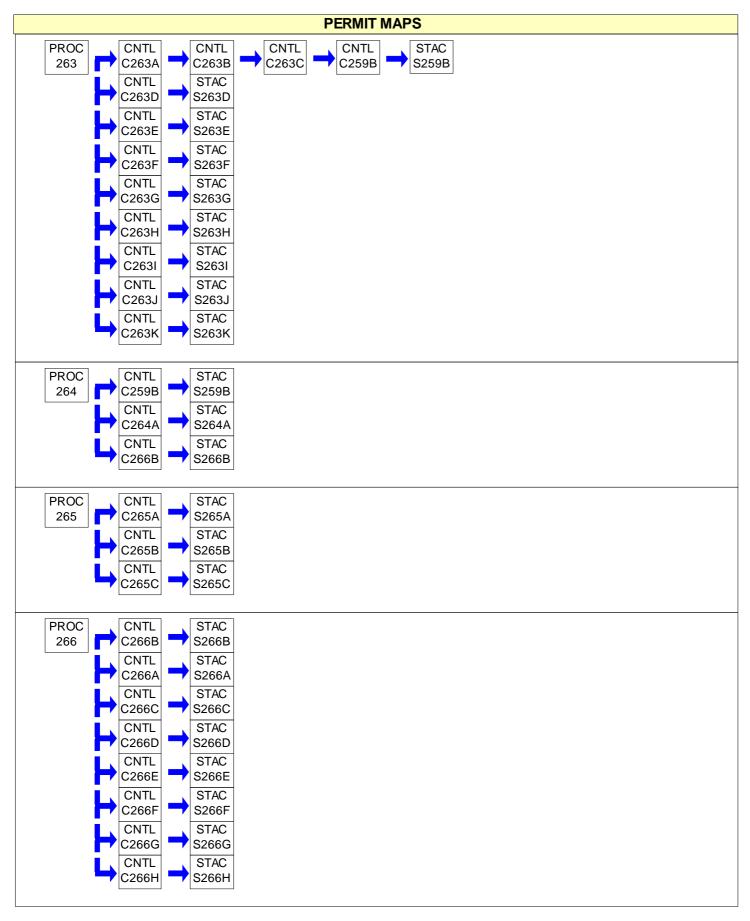




Page 12

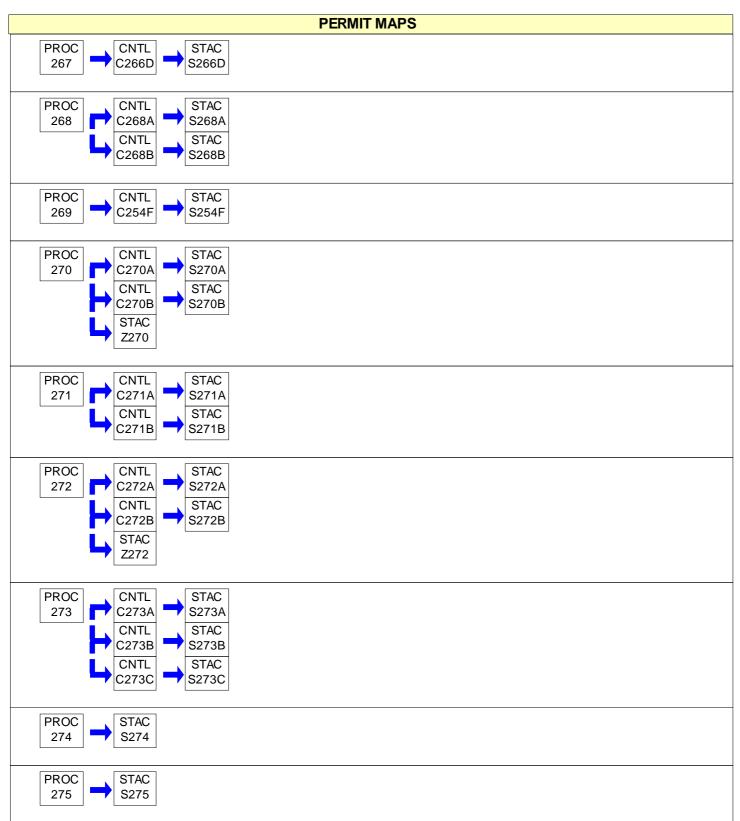
















#001 [25 Pa. Code § 121.1]

Definitions

Words and terms that are not otherwise defined in this plan approval shall have the meanings set forth in Section 3 of the Air Pollution Control Act (35 P.S. § 4003) and 25 Pa. Code § 121.1.

#002 [25 Pa. Code § 127.12b (a) (b)]

Future Adoption of Requirements

The issuance of this plan approval does not prevent the future adoption by the Department of any rules, regulations or standards, or the issuance of orders necessary to comply with the requirements of the Federal Clean Air Act or the Pennsylvania Air Pollution Control Act, or to achieve or maintain ambient air quality standards. The issuance of this plan approval shall not be construed to limit the Department's enforcement authority.

#003 [25 Pa. Code § 127.12b]

Plan Approval Temporary Operation

This plan approval authorizes temporary operation of the source(s) covered by this plan approval provided the following conditions are met.

- (a) When construction, installation, modification, or reactivation is being conducted, the permittee shall provide written notice to the Department of the completion of the activity approved by this plan approval and the permittee's intent to commence operation at least five (5) working days prior to the completion of said activity. The notice shall state when the activity will be completed and when the permittee expects to commence operation. When the activity involves multiple sources on different time schedules, notice is required for the commencement of operation of each source.
- (b) Pursuant to 25 Pa. Code § 127.12b (d), temporary operation of the source(s) is authorized to facilitate the shakedown of sources and air cleaning devices, to permit operations pending the issuance of a permit under 25 Pa. Code Chapter 127, Subchapter F (relating to operating permits) or Subchapter G (relating to Title V operating permits) or to permit the evaluation of the air contaminant aspects of the source.
- (c) This plan approval authorizes a temporary operation period not to exceed 180 days from the date of commencement of operation, provided the Department receives notice from the permittee pursuant to paragraph (a), above.
- (d) The permittee may request an extension of the 180-day shakedown period if further evaluation of the air contamination aspects of the source(s) is necessary. The request for an extension shall be submitted, in writing, to the Department at least 15 days prior to the end of the initial 180-day shakedown period and shall provide a description of the compliance status of the source, a detailed schedule for establishing compliance, and the reasons compliance has not been established. This temporary operation period will be valid for a limited time and may be extended for additional limited periods, each not to exceed 180 days.
- (e) The notice submitted by the permittee pursuant to subpart (a) above, prior to the expiration of the plan approval, shall modify the plan approval expiration date on Page 1 of this plan approval. The new plan approval expiration date shall be 180 days from the date of commencement of operation.

#004 [25 Pa. Code § 127.12(a) (10)]

Content of Applications

DEP Auth ID: 1320403

The permittee shall maintain and operate the sources and associated air cleaning devices in accordance with good engineering practice as described in the plan approval application submitted to the Department.

#005 [25 Pa. Code §§ 127.12(c) and (d) & 35 P.S. § 4013.2]

Public Records and Confidential Information

- (a) The records, reports or information obtained by the Department or referred to at public hearings shall be available to the public, except as provided in paragraph (b) of this condition.
- (b) Upon cause shown by the permittee that the records, reports or information, or a particular portion thereof, but not emission data, to which the Department has access under the act, if made public, would divulge production or sales figures or methods, processes or production unique to that person or would otherwise tend to affect adversely the





competitive position of that person by revealing trade secrets, including intellectual property rights, the Department will consider the record, report or information, or particular portion thereof confidential in the administration of the act. The Department will implement this section consistent with sections 112(d) and 114(c) of the Clean Air Act (42 U.S.C.A. § § 7412(d) and 7414(c)). Nothing in this section prevents disclosure of the report, record or information to Federal, State or local representatives as necessary for purposes of administration of Federal, State or local air pollution control laws, or when relevant in a proceeding under the act.

#006 [25 Pa. Code § 127.12b]

37-00013G

Plan Approval terms and conditions.

[Additional authority for this condition is derived from 25 Pa. Code Section 127.13]

- (a) This plan approval will be valid for a limited time, as specified by the expiration date contained on Page 1 of this plan approval. Except as provided in § § 127.11a and 127.215 (relating to reactivation of sources; and reactivation), at the end of the time, if the construction, modification, reactivation or installation has not been completed, a new plan approval application or an extension of the previous approval will be required.
- (b) If construction has commenced, but cannot be completed before the expiration of this plan approval, an extension of the plan approval must be obtained to continue construction. To allow adequate time for departmental action, a request for the extension shall be postmarked at least thirty (30) days prior to the expiration date. The request for an extension shall include the following:
 - (i) A justification for the extension,
 - (ii) A schedule for the completion of the construction

If construction has not commenced before the expiration of this plan approval, then a new plan approval application must be submitted and approval obtained before construction can commence.

(c) If the construction, modification or installation is not commenced within 18 months of the issuance of this plan approval or if there is more than an 18-month lapse in construction, modification or installation, a new plan approval application that meets the requirements of 25 Pa. Code Chapter 127, Subchapter B (related to plan approval requirements), Subchapter D (related to prevention of significant deterioration of air quality), and Subchapter E (related to new source review) shall be submitted. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified.

#007 [25 Pa. Code § 127.32]

Transfer of Plan Approvals

- (a) This plan approval may not be transferred from one person to another except when a change of ownership is demonstrated to the satisfaction of the Department and the Department approves the transfer of the plan approval in writing.
- (b) Section 127.12a (relating to compliance review) applies to a request for transfer of a plan approval. A compliance review form shall accompany the request.
- (c) This plan approval is valid only for the specific source and the specific location of the source as described in the application.

#008 [25 Pa. Code § 127.12(4) & 35 P.S. § 4008 & § 114 of the CAA]

Inspection and Entry

- (a) Pursuant to 35 P.S. § 4008, no person shall hinder, obstruct, prevent or interfere with the Department or its personnel in the performance of any duty authorized under the Air Pollution Control Act.
- (b) The permittee shall also allow the Department to have access at reasonable times to said sources and associated air cleaning devices with such measuring and recording equipment, including equipment recording visual observations, as the Department deems necessary and proper for performing its duties and for the effective enforcement of the Air Pollution Control Act and regulations adopted under the act.





(c) Nothing in this plan approval condition shall limit the ability of the Environmental Protection Agency to inspect or enter the premises of the permittee in accordance with Section 114 or other applicable provisions of the Clean Air Act.

#009 [25 Pa. Code 127.13a]

Plan Approval Changes for Cause

This plan approval may be terminated, modified, suspended or revoked and reissued if one or more of the following applies:

- (a) The permittee constructs or operates the source subject to the plan approval in violation of the act, the Clean Air Act, the regulations promulgated under the act or the Clean Air Act, a plan approval or permit or in a manner that causes air pollution.
- (b) The permittee fails to properly or adequately maintain or repair an air pollution control device or equipment attached to or otherwise made a part of the source.
- (c) The permittee fails to submit a report required by this plan approval.
- (d) The Environmental Protection Agency determines that this plan approval is not in compliance with the Clean Air Act or the regulations thereunder.

#010 [25 Pa. Code §§ 121.9 & 127.216]

Circumvention

- (a) The permittee, or any other person, may not circumvent the new source review requirements of 25 Pa. Code Chapter 127, Subchapter E by causing or allowing a pattern of ownership or development, including the phasing, staging, delaying or engaging in incremental construction, over a geographic area of a facility which, except for the pattern of ownership or development, would otherwise require a permit or submission of a plan approval application.
- (b) No person may permit the use of a device, stack height which exceeds good engineering practice stack height, dispersion technique or other technique which, without resulting in reduction of the total amount of air contaminants emitted, conceals or dilutes an emission of air contaminants which would otherwise be in violation of this plan approval, the Air Pollution Control Act or the regulations promulgated thereunder, except that with prior approval of the Department, the device or technique may be used for control of malodors.

#011 [25 Pa. Code § 127.12c]

Submissions

Reports, test data, monitoring data, notifications shall be submitted to the:

Regional Air Program Manager
PA Department of Environmental Protection
(At the address given on the plan approval transmittal letter or otherwise notified)

#012 [25 Pa. Code § 127.12(9) & 40 CFR Part 68]

Risk Management

- (a) If required by Section 112(r) of the Clean Air Act, the permittee shall develop and implement an accidental release program consistent with requirements of the Clean Air Act, 40 CFR Part 68 (relating to chemical accident prevention provisions) and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act (P.L. 106-40).
- (b) The permittee shall prepare and implement a Risk Management Plan (RMP) which meets the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68 and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act when a regulated substance listed in 40 CFR § 68.130 is present in a process in more than the listed threshold quantity at the facility. The permittee shall submit the RMP to the Environmental Protection Agency according to the following schedule and requirements:
- (1) The permittee shall submit the first RMP to a central point specified by the Environmental Protection Agency no later than the latest of the following:





- (i) Three years after the date on which a regulated substance is first listed under § 68.130; or,
- (ii) The date on which a regulated substance is first present above a threshold quantity in a process.
- (2) The permittee shall submit any additional relevant information requested by the Department or the Environmental Protection Agency concerning the RMP and shall make subsequent submissions of RMPs in accordance with 40 CFR § 68.190.
- (3) The permittee shall certify that the RMP is accurate and complete in accordance with the requirements of 40 CFR Part 68, including a checklist addressing the required elements of a complete RMP.
- (c) As used in this plan approval condition, the term "process" shall be as defined in 40 CFR § 68.3. The term "process" means any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances or any combination of these activities. For purposes of this definition, any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, shall be considered a single process.

#013 [25 Pa. Code § 127.25]

Compliance Requirement

DEP Auth ID: 1320403

A person may not cause or permit the operation of a source subject to § 127.11 (relating to plan approval requirements), unless the source and air cleaning devices identified in the application for the plan approval and the plan approval issued to the source, are operated and maintained in accordance with specifications in the application and conditions in the plan approval issued by the Department. A person may not cause or permit the operation of an air contamination source subject to this chapter in a manner inconsistent with good operating practices.





I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §121.7]

Prohibition of air pollution.

No person may permit air pollution as that term is defined in the act.

002 [25 Pa. Code §123.1]

Prohibition of certain fugitive emissions

- (a) No person may permit the emission into the outdoor atmosphere of fugitive air contaminant from a source other than the following:
 - (1) Construction or demolition of buildings or structures.
 - (2) Grading, paving and maintenance of roads and streets.
- (3) Use of roads and streets. Emissions from material in or on trucks, railroad cars and other vehicular equipment are not considered as emissions from use of roads and streets.
 - (4) Clearing of land.
 - (5) Stockpiling of materials.
 - (6) Open burning operations.
 - (7) N/A
 - (8) N/A
- (9) Sources and classes of sources other than those identified in paragraphs (1)-(8), for which the operator has obtained a determination from the Department that fugitive emissions from the source, after appropriate control, meet the following requirements:
 - (i) the emissions are of minor significance with respect to causing air pollution; and
- (ii) the emissions are not preventing or interfering with the attainment or maintenance of any ambient air quality standard.
- (b) An application form for requesting a determination under either subsection (a)(9) or 129.15(c) is available from the Department. In reviewing these applications, the Department may require the applicant to supply information including, but not limited to, a description of proposed control measures, characteristics of emissions, quantity of emissions, and ambient air quality data and analysis showing the impact of the source on ambient air quality. The applicant shall be required to demonstrate that the requirements of subsections (a)(9) and (c) and 123.2 (relating to fugitive particulate matter) or of the requirements of 129.15(c) have been satisfied. Upon such demonstration, the Department will issue a determination, in writing, either as an operating permit condition, for those sources subject to permit requirements under the act, or as an order containing appropriate conditions and limitations.
 - (c) See work practice standards below.
 - (d) N/A

003 [25 Pa. Code §123.2]

Fugitive particulate matter

A person may not permit fugitive particulate matter to be emitted into the outdoor atmosphere from a source specified in 123.1(a)(1) -- (9) (relating to prohibition of certain fugitive emissions) if such emissions are visible at the point the emissions pass outside the person's property.

004 [25 Pa. Code §123.21]

General

- (a) This section applies to sources except those subject to other provisions of this article, with respect to the control of sulfur compound emissions.
- (b) No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO2, in the effluent gas exceeds 500 parts per million, by volume, dry basis.





005 [25 Pa. Code §123.31]

Limitations

- (a) Limitations are as follows:
- (1) If control of malodorous air contaminants is required under subsection (b), emissions shall be incinerated at a minimum of 1200F for at least 0.3 seconds prior to their emission into the outdoor atmosphere.
- (2) Techniques other than incineration may be used to control malodorous air contaminants if such techniques are equivalent to or better than the required incineration in terms of control of the odor emissions and are approved in writing by the Department.
- (b) A person may not permit the emission into the outdoor atmosphere of any malodorous air contaminants from any source in such a manner that the malodors are detectable outside the property of the person on whose land the source is being operated.
 - (c) N/A

006 [25 Pa. Code §123.41]

Limitations

A person may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following:

- (1) Equal to or greater than 20% for a period or periods aggregating more than three minutes in any 1 hour.
- (2) Equal to or greater than 60% at any time.

007 [25 Pa. Code §123.42]

Exceptions

The limitations of 123.41 (relating to limitations) shall not apply to a visible emission in any of the following instances:

- (1) when the presence of uncombined water is the only reason for failure of the emission to meet the limitations.
- (2) When the emission results from the operation of equipment used solely to train and test persons in observing the opacity of visible emissions.
- (3) When the emission results from sources specified in 123.1(a)(1) (9) (relating to prohibition of certain fugitive emissions).
- (4) N/A

DEP Auth ID: 1320403

008 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Total emissions from all sources and associated air cleaning devices installed under this authorization, including periods of startup and shutdown, shall not exceed the following on a 12-month rolling total basis:

Air Contaminant Emission Rate

Pollutant	(tpy)
NOx	859
CO	786
PM (Total)	160
PM10	149
PM2.5	116.5
SOx	228



VOC 46 H2SO4 63 HCI 13.4 Ammonia 30.6 THC 129.6 D/F

0.0000000786

Hg 0.012 CO2e 1,048,162

009 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

In accordance with 25 Pa. Code §127.210, the Permittee shall secure 988 tons of NOx and 53 tons of VOC ERCs which have been certified by the Department prior to commencement of operation.

ERCs shall be properly generated, certified by the Department and processed through the registry in accordance with 25 Pa. Code §127.206(d)(1). Upon transfer, the Owner/Operator shall provide the Department with documentation clearly specifying the details of the ERC transaction. This facility may not commence operation until the required emissions reductions are certified and registered by the Department.

010 [25 Pa. Code §129.14]

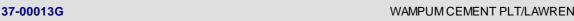
Open burning operations

- (a) Air basins. No person may permit the open burning of material in an air basin.
- (b) Outside of air basins. N/A
- (c) Exceptions. The requirements of subsections (a) and (b) do not apply where the open burning operations result from:
- (1) A fire set to prevent or abate a fire hazard, when approved by the Department and set by or under the supervision of a public officer.
- (2) Any fire set for the purpose of instructing personnel in fire fighting, when approved by the Department.
- (3) A fire set for the prevention and control of disease or pests, when approved by the Department.
- (4) A fire set in conjunction with the production of agricultural commodities in their unmanufactured state on the premises of the farm operation.
- (5) A fire set for the purpose of burning domestic refuse, when the fire is on the premises of a structure occupied solely as a dwelling by two families or less and when the refuse results from the normal occupancy of the structure.
- (6) A fire set solely for recreational or ceremonial purposes.
- (7) A fire set solely for cooking food.
- (d) Clearing and grubbing wastes. The following is applicable to clearing and grubbing wastes:
- (1) As used in this subsection the following terms shall have the following meanings:

Air curtain destructor—A mechanical device which forcefully projects a curtain of air across a pit in which open burning is being conducted so that combustion efficiency is increased and smoke and other particulate matter are contained.

Clearing and grubbing wastes—Trees, shrubs and other native vegetation which are cleared from land during or prior to the process of construction. The term does not include demolition wastes and dirt laden roots.

- (2) Subsection (a) notwithstanding, clearing and grubbing wastes may be burned in a basin subject to the following requirements:
- (i) Air curtain destructors shall be used when burning clearing and grubbing wastes.
- (ii) Each proposed use of air curtain destructors shall be reviewed and approved by the Department in writing with respect to equipment arrangement, design and existing environmental conditions prior to commencement of burning. Proposals



approved under this subparagraph need not obtain plan approval or operating permits under Chapter 127 (relating to construction, modification, reactivation and operation of sources).

- (iii) Approval for use of an air curtain destructor at one site may be granted for a specified period not to exceed 3 months, but may be extended for additional limited periods upon further approval by the Department.
- (iv) The Department reserves the right to rescind approval granted if a determination by the Department indicates that an air pollution problem exists.
- (3) N/A
- (4) During an air pollution episode, open burning is limited by Chapter 137 (relating to air pollution episodes) and shall cease as specified in that chapter.

Throughput Restriction(s).

011 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The facility clinker production is limited to 3,120 short tons/day on a 30-operating day rolling average and 1,138,800 tons per year on a 12-month rolling total basis.

TESTING REQUIREMENTS.

012 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Department reserves the right to require exhaust stack testing of the sources and control devices referenced in this permit, as necessary during the permit term to measure emissions for purposes including verification of permit condition compliance and estimation of annual air emissions.

[25 Pa. Code §127.12b]

Plan approval terms and conditions.

Vendor supplied fuel analysis may be used to demonstrate compliance with the sulfur content of the fuels used in the emergency generators.

Vendor supplied guarantees/analyses for pipeline quality natural gas used for the kiln may be used to demonstate compliance with the fuel sulfur content limit of 0.2 grains S per 100 dscf. (S=sulfur)

SO2 CEMS is the method of compliance for process sulfur oxide emission limit compliance determinations when burning permit approved fuels

014 [25 Pa. Code §139.1]

Sampling facilities.

Upon the request of the Department, the person responsible for a source shall provide adequate sampling ports, safe sampling platforms and adequate utilities for the performance by the Department of tests on such source. The Department will set forth, in the request, the time period in which the facilities shall be provided as well as the specifications for such facilities.

MONITORING REQUIREMENTS.

015 [25 Pa. Code §123.43]

Measuring techniques

DEP Auth ID: 1320403

Visible emissions may be measured using either of the following:

- (1) A device approved by the Department and maintained to provide accurate opacity measurements.
- (2) Observers, trained and qualified to measure plume opacity with the naked eye or with the aid of any devices approved by the Department.





016 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall conduct a facility-wide inspection at a minimum of once per day while the facility is in operation of the areas surrounding the plant to detect the presence of malodors, visible stack emissions and visible fugitive PM emissions.

This inspection is to ensure continued compliance with source-specific visible emission limitations, the fugitive emissions prohibition under 25 Pa. Code §§123.1 or 123.2, and the malodors prohibition under 25 Pa. Code §123.31.

Observations shall be conducted for the presence of the following:

- 1) Visible stack emissions;
- 2) Fugitive emissions; and
- 3) Potentially objectionable odors.

If visible stack emissions, fugitive emissions, or potentially objectionable odors are apparent, it shall be reported to the Shift Supervisor. The Owner/Operator shall take corrective action.

Plant personnel who observe visible emissions may make arrangements for a certified observer to take readings of the visible emissions within 24 hours of discovery.

017 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Prior to operation, the Permittee shall develop a plan ("Dust Collector Monitoring Plan") to ensure that all fabric filters and other particulate control devices are operating properly and in accordance with good engineering practices.

The Dust Collector Monitoring Plan (DCMP) will identify "key" or "significant" fabric filters that will be subject to weekly monitoring and recordkeeping of the bag leak detection system data.

The Dust Collector Monitoring Plan (DCMP) will identify the remaining fabric filters that will be subject to weekly monitoring and recordkeeping of the pressure drop readings.

The Dust Collector Monitoring Plan (DCMP) will identify other fabric filter or particulate matter control devices that will be subject to weekly monitoring and recordkeeping of the bag leak detection system data or pressure drop readings, as feasible and practical.

For those PM control devices that are not identified as "key" or "significant" in the DCMP and/or not readily accessible or are controlling very small sources and quantities of PM, the plan will include requirements for daily visual inspections of the overall facility and records of observations and corrective actions. At a minimum, pressure drop readings shall be taken once per week while the sources and control devices are in operation, as feasible and practical.

018 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

For those control devices identified in the Dust Collector Monitoring Plan (DCMP) referenced in this section to be equipped with a device for continuously monitoring the pressure drop, a magnehelic gauge (or equivalent) shall be used to continuously measure the pressure drop across control devices.

IV. RECORDKEEPING REQUIREMENTS.

019 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall calculate monthly air emissions from the facility, including during times of startup, shutdown, and malfunction thereof, using EPA AP-42 emission factors, manufacturer-supplied emission factors, stack test results, CEM data or other method(s) approved by the Department and include the information in an annual facility emission statement per 25 Pa. Code §135.21.

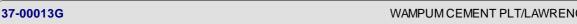
Page 23

020 [25 Pa. Code §127.12b]

DEP Auth ID: 1320403

Plan approval terms and conditions.

DEP PF ID: 246188



The Permittee shall maintain records of the following items for each source at this facility, as appropriate:

- (1) Monthly operating hours.
- (2) Emissions (expressed in tons) of NOx, CO, PM, PM10, PM2.5, SOx, H2SO4, VOC, THC, HCI, D/F, NH3, Total HAP, Individual HAP, and CO2e on a 12-month rolling sum basis.
- (3) Daily fugitive and visible emission and malodor inspections and findings.
- (4) Inspection and monitoring records as required by the Dust Collector Monitoring Plan (DCMP)
- (5) Emission test reports, all operating data collected during tests, and a copy of the calculations performed to determine compliance with emission limitations for the kiln, clinker cooler, and other sources with performance test requirements.
- (6) Monitoring information and report data as specified in 25 Pa. Code Chapter 139 Subchapter C and the most recent version of the Department's Continuous Source Monitoring Manual.
- (7) Maintenance procedures and schedules for each air contamination source and air cleaning device authorized under this plan approval required to demonstrate good engineering practice.
- (8) Records of maintenance conducted on each air contamination source and air cleaning device authorized under this plan approval required to demonstrate good engineering practice.
- (9) A current and valid purchase contract, tariff sheet, or transportation contract for natural gas fuel received at the facility demonstrating that total sulfur content does not exceed 0.2 grains per 100 dscf.

[25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall maintain records of the laboratory analysis of the fuel oil in the tank or records of the fuel supplier's certification for each fuel oil delivery for the emergency generators. The fuel supplier's certification or laboratory analysis shall include, at a minimum, the weight percent sulfur.

The Permittee shall maintain records of the current and valid purchase contract, tariff sheet, or transportation contract for natural gas fuel received at the facility demonstrating that total sulfur content does not exceed 0.2 grains per 100 dscf.

[25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall keep and maintain all required records for five (5) years. Two (2) years of records shall be retained onsite and three (3) years may be kept off-site. Records shall be made available to the Department upon receipt of a written request from the Department.

[25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall keep maintain a record of each daily inspection conducted and at a minimum, these records shall include the following information:

- (1) The name of the company representative conducting each inspection.
- (2) The date and time of each inspection.
- (3) The wind direction during each inspection.
- (4) A description of the emissions and/or malodors observed and the actions taken to mitigate them.

Any fugitive PM emissions, visible emissions, or malodors that are detected by plant personnel shall be reported to the Shift Supervisor.

The Shift Supervisor shall record the event on the inspection log.

Appropriate corrective action shall be taken and noted in the inspection log.

024 [25 Pa. Code §135.5]

Recordkeeping

DEP Auth ID: 1320403

Source owners or operators shall maintain and make available upon request by the Department records including computerized records that may be necessary to comply with § § 135.3 and 135.21 (relating to reporting; and emission statements).

These may include records of production, fuel usage, maintenance of production or pollution control equipment or other

37-00013G



SECTION C. **Site Level Plan Approval Requirements**

information determined by the Department to be necessary for identification and quantification of potential and actual air contaminant emissions.

If direct recordkeeping is not possible or practical, sufficient records shall be kept to provide the needed information by indirect means.

V. REPORTING REQUIREMENTS.

025 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Sources at the facility are subject to the applicable requirements of the following regulations and shall comply with all applicable notification and reporting requirements contained in:

40 CFR 60 Subpart A--General Provisions

40 CFR 60 Subpart F-Standards of Performance for Portland Cement Plants

40 CFR 60 Subpart Y—Standards of Performance for Coal Preparation and Processing Plants

40 CFR Part 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE)

40 CFR Part 63-Subpart A--General Provisions

40 CFR 63 Subpart LLL--National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry

40 CFR, Part 63 Subpart ZZZZ--National Emission Standards for Hazardous Pollutants for Stationary Reciprocating Internal Combustion Engines.

In accordance with 40 CFR § 60.4 and 40 CFR § 63.13, copies of all requests, reports, applications, submittals and other communications shall be forwarded to both the Environmental Protection Agency and the Pennsylvania Department of Environmental Protection at the addresses shown below, unless otherwise noted:

Permittees shall submit routine Air Quality related documents and reporting using the OnBase tool and OnBase-DEP Upload Form, to the Northwest Regional Office in lieu of sending paper copies to the Department. If using the tool to submit non permit related information, please use the "Other" as the both the form name and document type.

Conventional mailing addresses:

Director, Air Protection Division

Environmental Protection Agency Regional Air Quality Program Manager

EPA Mail Code 3AP20.

Region III

DEP Auth ID: 1320403

1650 Arch Street

Philadelphia, PA 19103-2029

Air Quality Program

PA Department of Environmental Protection

230 Chestnut Street

Meadville, PA 16335

This permit contains language from the Code of Federal Regulations (CFR). Should the wording of the federal citations of the conditions in this permit be changed in the CFR, the new wording shall supersede the language of this permit.

026 [25 Pa. Code §127.12b]

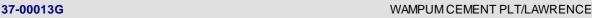
Plan approval terms and conditions.

Malfunction reporting shall be conducted as follows:

DEP PF ID: 246188

(a) For the purpose of this condition, a malfunction is defined as any sudden, infrequent, and not reasonably preventable failure of a source to operate in a normal or usual manner that results in, or potentially results in, air contaminant emissions in excess of an applicable emission limitation, or which may be reasonably expected to create off-site impacts,

Page 25



such as large dust plumes, heavy smoke, or a spill or release that results in a malodor that is detectable outside the property on whose land the source is being operated. Any failure of an air cleaning device that is required under this permit shall be reported as a malfunction.

- (b) Any malfunction that poses an imminent danger to the public health, safety, or welfare to the environment shall be reported by telephone to the County Emergency Management Agency (911 Center), and to the 24-hour Emergency Hotline of the appropriate Department Regional Office (814-332-6945) no later than one hour after the discovery of an incident. Following the telephone notification, a written notice shall be submitted to the Department no later than the next business day.
- (c) All other malfunctions shall be reported to the Department no later than the next business day.
- (d) Initial reporting of the malfunction shall identify the following items to the extent known:
- (i) The name and location of the facility;
- (ii) The nature and cause of the malfunction;
- (iii) The time when the malfunction or breakdown was first observed;
- (iv) The expected duration of increased emissions; and
- (v) The estimated rate of emissions.
- (e) The Owner or Operator shall also notify the Department immediately, by telephone, when corrective measures for malfunctions meeting the criteria in (b) have been accomplished.
- (f) All malfunctions shall be reported to the Department by email (addresses will be provided by the Department), or by regular mail at the address below:

PADEP

DEP Auth ID: 1320403

Office of Air Quality 230 Chestnut Street Meadville, PA 16335

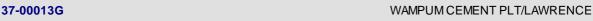
(g) If requested by the Department, the Owner/Operator shall submit a full written report to the Department, including final determinations of the items identified in (d), and the corrective measures taken on the malfunction. The report shall be submitted within 15 days of the Department's request or accomplishing corrective measures, whichever is later.

[25 Pa. Code §127.12b]

Plan approval terms and conditions.

Performance testing submittals shall be as follows:

- (1) At least 90 calendar days prior to commencing an emissions testing program, a test protocol shall be submitted to the Department for review and approval in accordance with paragraph (7) of this condition. The test protocol shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.
- (2) At least 15 calendar days prior to commencing an emission testing program, notification as to the date and time of testing shall be given to the Department in accordance with paragraph (7)(B) of this condition. Notification shall not be made without prior receipt of a protocol acceptance letter from the Department (Source Testing Section).
- (3) A complete test report shall be submitted to the Department no later than 60 calendar days after completion of the onsite testing portion of an emission test program.
- (4) A complete test report shall include a summary of the emission results on the first page of the report indicating if each pollutant measured is within permitted limits and a statement of compliance or noncompliance with all applicable permit conditions. The summary results will include, at a minimum, the following information:
- (A) A statement that the owner or operator has reviewed the report from the emissions testing body and agrees with the findings.
- (B) Permit number(s) and condition(s) which are the basis for the evaluation.
- (C) Summary of results with respect to each applicable permit condition.



- (D) Statement of compliance or non-compliance with each applicable permit condition.
- (5) All submittals shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.
- (6) All testing shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection.

- (A) All submittals, besides notifications, shall be accomplished through PSIMS*Online, available through https://www.depgreenport.state.pa.us/ecomm/Login.jsp, when it becomes available.
- (B) If internet submittal cannot be accomplished, one paper copy plus one electronic copy of all source test submissions (notifications, protocols, reports, supplemental information, etc.) shall be sent to both PSIMS Administration in Central Office and to Regional Office AQ Program Manager.

Paper copies shall be sent using the following mailing addresses:

CENTRAL OFFICE:

Pennsylvania Department of Environmental Protection

Attn: PSIMS Administrator

P.O. Box 8468

Harrisburg, PA 17105-8468

NORTHWEST REGIONAL OFFICE:

Pennsylvania Department of Environmental Protection

Attn: Air Quality Program Manager

230 Chestnut St.

Meadville, PA 16335

Electronic copies shall be sent at the following e-mail addresses:

DEP PF ID: 246188

CENTRAL OFFICE:

DEP Auth ID: 1320403

RA-EPstacktesting@pa.gov

NORTHWEST REGIONAL OFFICE:

RA-EPNWstacktesting@pa.gov

[Where there are regulatory conflicts with NSPS, NESHAPS, and 25 Pa. Code 127.12b performance test notification, submittal, and reporting requirements, the most stringent would apply.]

[25 Pa. Code §127.12b]

Plan approval terms and conditions.

Annual emission reporting shall be conducted as follows [25 Pa. Code §127.12b and §135.3]:

- 1) The Permittee shall submit to the Department by March 1 of each year, a source report for the preceding calendar year for all sources authorized under this Plan Approval and which operated during the previous calendar year.
- 2) The source report; in a form as the Department may prescribe; for classes or categories of sources; shall show the actual emissions of NOx, CO, VOC, SOx, PM, PM10, PM2.5, THC, HCI, H2SO4, Hg, D/F, NH3, HAP (per the Department's Emissions Inventory Reporting Instructions), and GHG (including but not limited to CO2, CH4, and N2O) for each reporting period. A description of the method used to calculate the emissions and the time period over which the calculation is based shall be included. The report shall also contain a certification by a company officer or the plant manager that the information contained in the report is accurate.
- 3) A source permittee may request an extension of time from the Department for the filing of a source report, and the Department may grant the extension for reasonable cause.

Page 27





029 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall comply with the applicable requirements of 40 CFR Part 98 related to the Mandatory Greenhouse Gas Reporting Rule.

030 [25 Pa. Code §135.21]

Emission statements

- (a) Except as provided in subsection (d), this section applies to stationary sources or facilities:
- (1) Located in an area designated by the Clean Air Act as a marginal, moderate, serious, severe or extreme ozone nonattainment area and which emit oxides of nitrogen or VOC.
- (2) Not located in an area described in subparagraph (1) and included in the Northeast Ozone Transport Region which emit or have the potential to emit 100 tons or more oxides of nitrogen or 50 tons or more of VOC per year.
- (b) The owner or operator of each stationary source emitting oxides of nitrogen or VOC's shall provide the Department with a statement, in a form as the Department may prescribe, for classes or categories of sources, showing the actual emissions of oxides of nitrogen and VOCs from that source for each reporting period, a description of the method used to calculate the emissions and the time period over which the calculation is based. The statement shall contain a certification by a company officer or the plant manager that the information contained in the statement is accurate.
- (c) Annual emission statements are due by March 1 for the preceding calendar year beginning with March 1, 1993, for calendar year 1992 and shall provide data consistent with requirements and guidance developed by the EPA. The guidance document is available from: United States Environmental Protection Agency, 401 M. Street, S.W., Washington, D.C. 20460. The Department may require more frequent submittals if the Department determines that one or more of the following applies:
 - (1) A more frequent submission is required by the EPA.
 - (2) Analysis of the data on a more frequent basis is necessary to implement the requirements of the act.
 - (d) N/A

DEP Auth ID: 1320403

WORK PRACTICE REQUIREMENTS.

031 [25 Pa. Code §123.1]

Prohibition of certain fugitive emissions

A person responsible for any source specified in subsections (a)(1) -- (7) or (9) shall take all reasonable actions to prevent particulate matter from becoming airborne. These actions shall include, but not be limited to, the following:

- (1) Use, where possible, of water or chemicals for control of dust in the demolition of buildings or structures, construction operations, the grading of roads, or the clearing of land.
- (2) Application of asphalt, oil, water or suitable chemicals on dirt roads, material stockpiles and other surfaces which may give rise to airborne dusts.
 - (3) Paving and maintenance of roadways.
- (4) Prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

[25 Pa. Code §127.12b]

Plan approval terms and conditions.

All air contamination sources and air cleaning devices authorized under this Plan Approval shall be operated and maintained in accordance with good engineering practice.

Baghouses and dust handling systems shall be maintained according to good engineering practices with a sufficient quantity of replacement bags to be kept on site.

Maintenance plans shall be in place and available within 180 days of startup of each air contamination source or air





cleaning device.

033 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Operation of any air emissions source is contingent upon proper operation of its associated emissions control system, unless otherwise approved by the Department.

The plant will not be operated unless the control systems are functioning as designed or approved.

VII. ADDITIONAL REQUIREMENTS.

034 [25 Pa. Code §122.3]

Adoption of standards.

Standards of Performance for New Stationary Sources, promulgated in 40 CFR Part 60 (relating to standards of performance for new stationary sources) by the Administrator of the United States Environmental Protection Agency under section 111(b) of the Clean Air Act (42 U.S.C.A. 7411) are hereby adopted in their entirety by the Department and incorporated herein by reference.

035 [25 Pa. Code §124.3]

Adoption of standards

National Emission Standards for Hazardous Air Pollutants promulgated in 40 CFR Part 61 (relating to National Emissions Standards for Hazardous Air Pollutants) by the Administrator of the United States Environmental Protection Agency under section 112(d) of the Federal Clean Air Act (42 U.S.C.A. 7412(d)) are hereby adopted in their entirety by the Department and incorporated herein by reference.

036 [25 Pa. Code §127.206]

ERC general requirements.

- (a) Emissions reductions or ERCs banked prior to January 1, 1991, may not be used as ERCs for emission offsets or netting purposes.
- (b) The EQB may, by regulation and upon notice in the Pennsylvania Bulletin and opportunity for public comment, proportionally reduce the quantity of registered ERCs not previously included in a plan approval, or may halt transfer activity, in a nonattainment area or throughout this Commonwealth only as necessary when the other measures required by the Clean Air Act and the act may fail to achieve NAAQS or SIP requirements.
- (c) ERCs shall be proportionally reduced prior to use in a plan approval in an amount equal to the reductions that the generating facility is or would have been required to make in order to comply with new requirements promulgated by the Department or the EPA, which apply to the generating facility after the ERCs were created.
- (d) The Department may issue a plan approval for the construction of a new or modified facility which satisfies the offset requirements specified in § 127.205(3) and (4) (relating to special permit requirements) under the following conditions:
- (1) The application for a plan approval demonstrates that the proposed facility either has or will secure the appropriate ERCs which are suitable for use at the specific facility. The ERCs shall be identified in a Department approved and Federally enforceable permit condition for the ERC generating source. The permit condition will provide that the ERCs are properly generated, certified by the Department and processed through the registry no later than the date approved by the Department for commencement of operation of the proposed new or modified facility.
- (2) The owner or operator of the proposed new or modified facility may not commence operation or increase emissions until the required emissions reductions are certified and registered by the Department.
- (e) ERCs generated by the over control of emissions by an existing facility will not expire for use as offsets. The use of these ERCs in applicability determinations for netting purposes is limited to the period specified in § 127.203a(a)(1) (relating to applicability determination).





- (f) ERCs generated by the curtailment or shutdown of a facility which are not included in a plan approval and used as offsets will expire for use as offsets 10 years after the date the facility ceased emitting the ERC generating emissions. The use of these ERCs in applicability determinations for netting purposes is limited to the period specified in § 127.203a(a)(1).
- (g) The expiration date of ERCs may not extend beyond the 10-year period allowed by subsection (f), if the ERCs are included in a plan approval but are not used and are subsequently reentered in the registry.
- (h) ERCs which are included in a plan approval issued by the Department for a new or modified facility which is never operated may be reentered in the registry if the ERCs are no longer required by the plan approval. Applicable discounts in subsections (b) and (c) shall be applied when the ERCs are reentered in the registry.
- (i) ERCs may not be used to achieve compliance with RACT, MACT, BAT, NSPS, BACT, LAER or other emissions limitations required by the Clean Air Act or the act.
- (j) ERCs may not be entered into the ERC registry until the emissions reduction generating the ERCs has been certified by the Department in accordance with the criteria for ERC generation and creation contained in § 127.207 (relating to creditable emissions decrease or ERC generation and creation).
- (k) A major facility which, due to reductions in the maximum allowable emissions rates, including reductions made to generate ERCs, no longer meets the criteria in § 127.203 (relating to facilities subject to special permit requirements) will continue to be treated as a major facility.
- (I) ERCs may not be traded to facilities under different ownership until the emissions reduction generating the ERCs is made Federally enforceable.
- (m) ERCs may not be created for an emissions reduction previously used in an applicability determination for netting purposes nor for an emissions decrease used to create an alternative emissions limitation.
- (n) ERCs transferred from one facility to another may not be transferred to a third party, unless the transfer of the ERCs is processed by the Department through the ERC registry system.
- (o) Except as provided under § 127.210 (relating to offset ratios), an ERC created for a regulated criteria pollutant shall only be used for offsetting or netting an emissions increase involving the same criteria pollutant unless approved in writing by the Department and the EPA.
- (p) The owner or operator of a source or facility which has registered ERCs with the Department may not exceed the emissions limitation or violate other permit conditions established in generating the ERCs.
- (q) ERCs may not be generated for emissions in excess of those previously identified in required emission statements and for which applicable emission fees have been paid.
- (r) Emission reductions occurring at a facility after April 5, 2005, but prior to September 3, 2011, may be used to generate ERCs in accordance with this subchapter, if a complete ERC registry application is submitted to the Department by September 3, 2012.

037 [25 Pa. Code §127.208]

DEP Auth ID: 1320403

ERC use and transfer requirements.

The use and transfer of ERCs shall meet the following conditions:

(1) The registry system established by § 127.209 (relating to ERC registry system) shall be used to transfer ERCs, with the Department's approval, directly from an existing source or facility where the ERCs were generated to the proposed facility.





- (2) The transferee shall secure approval to use the offsetting ERCs through a plan approval or an operating permit, which indicates the Department's approval of the ERC transfer and use. Upon the issuance of a plan approval or an operating permit, the ERCs are no longer subject to expiration under § 127.206(f) (relating to ERC general requirements) except as specified in § 127.206(g).
- (3) For the pollutants regulated under this subchapter, the facility shall demonstrate to the satisfaction of the Department that the ERCs proposed for use as offsets will provide, at a minimum, ambient impact equivalence to the extent equivalence can be determined and that the use of the ERCs will not interfere with the overall control strategy of the SIP.
- (4) ERCs shall include the same conditions, limitations and characteristics, including seasonal and other temporal variations in emission rate and quality, as well as the maximum allowable emission rates the emissions would have had if emitted by the generator, unless equivalent ambient impact is assured through other means.
- (5) ERCs may be obtained from or traded in another state, which has reciprocity with the Commonwealth for the trading and use of ERCs, only upon the approval of both the Commonwealth and the other state through SIP approved rules and procedures, including an EPA approved SIP revision. ERCs generated in another state may not be traded into or used at a facility within this Commonwealth unless the ERC generating facility's ERCs are enforceable by the Department.
- (6) ERCs may not be transferred to and used in an area with a higher nonattainment classification than the one in which they were generated.
- (7) A facility proposing new or increased emissions shall demonstrate that sufficient offsetting ERCs at the ratio specified in § 127.210 (relating to offset ratios) have been acquired from within the nonattainment area of the proposed facility.
- (8) If the facility proposing new or increased emissions demonstrates that ERCs are not available in the nonattainment area where the facility is located, ERCs may be obtained from another nonattainment area if the other nonattainment area has an equal or higher classification and if the emissions from the other nonattainment area contribute to an NAAQS violation in the nonattainment area of the proposed facility. In addition, the requirements of paragraph (3) shall be satisfied.
- (9) For the purpose of emissions offset transfers at VOC or NOx facilities, the areas included within an ozone transport region established under section 184 of the Clean Air Act (42 U.S.C.A. § 7511c), which are designated in 40 CFR 81.339 (relating to Pennsylvania) as attainment, nonattainment or unclassifiable areas for ozone, shall be treated as a single nonattainment area.
- (10) An owner or operator of a facility shall acquire ERCs for use as offsets from an ERC generating facility located within the same nonattainment area.
- (11) An owner or operator of a facility shall acquire ERCs for use as offsets from an ERC generating facility located within the same nonattainment area, except that the Department may allow the owner or operator to obtain ERCs generated in another nonattainment area if the following exist:
 - (i) The other area has an equal or higher nonattainment classification than the area in which the facility is located.
- (ii) Emissions from the other area contribute to a violation of the NAAQS in the nonattainment area in which the facility is located.
- (12) An owner or operator of a facility that is subject to allowance-based programs in this article may generate, create, transfer and use ERCs in accordance with this subchapter and applicable provisions in Chapter 145 (relating to interstate pollution transport reduction).

038 [25 Pa. Code §127.210]

Offset ratios.

DEP Auth ID: 1320403

(a) The emissions offset ratios for NSR purposes and ERC transactions subject to the requirements of this subchapter must be in an amount equal to or greater than the ratios specified in the following table:





Required Emission Offsets For Existing Sources, Expressed in Tons per Year					
Pollutant/Area PM-10 and SOx	Flue Emissions 1.3:1	Fugitive Emissions 5:1			
Volatile Organic Compounds Ozone Classification Areas	Flue Emissions	Fugitive Emissions			
Severe Areas	1.3:1	1.3:1			
Serious Areas	1.2:1	1.3:1			
Moderate Areas	1.15:1	1.3:1			
Marginal/Incomplete Data Areas	1.15:1	1.3:1			
Transport Region	1.15:1	1.3:1			
NOx Ozone Classification Areas	Flue Emissions	Fugitive Emissions			
Severe Areas	1.3:1	1.3:1			
Serious Areas	1.2:1	1.2:1			
Moderate Areas	1.15:1	1.15:1			
Marginal/Incomplete Data Areas	1.15:1	1.15:1			
Transport Region	1.15:1	1.15:1			
Carbon Monoxide Primary Nonattainment Areas	Flue Emissions 1.1:1	Fugitive Emissions 1.1:1			
Lead	Flue Emissions 1.1:1	Fugitive Emissions 1.1:1			
PM2.5	Flue Emissions	Fugitive Emissions			
PM2.5 Nonattainment Area PM2.5	1:1	1:1			
PM2.5 Precursors	Flue Emissions	Fugitive Emissions			
SO2	1:1	1:1			
NOx	1:1	1:1			
VOCs	1:1	1:1			
Ammonia	1:1	1:1			

- (b) In complying with the emissions offset requirements of this subchapter, the emission offsets obtained shall be of the same NSR regulated pollutant unless interpollutant offsetting is authorized for a particular pollutant in accordance with subsection (c).
- (c) The Department may, based on a technical assessment, establish interpollutant trading ratios for offsetting PM2.5 emissions or PM2.5 precursor emissions in a specific nonattainment area or geographic area in this Commonwealth. The interpollutant trading ratios shall be subject to public review and comment for at least 30 days prior to submission to the EPA for approval as a SIP revision.
- (d) If the EPA promulgates PM2.5 interpollutant trading ratios in 40 CFR Part 51 (relating to requirements for preparation, adoption, and submittal of implementation plans), the ratios will be adopted and incorporated by reference.

039 [25 Pa. Code §129.96] Applicability

DEP Auth ID: 1320403

(a) The NOx requirements of this section and § \$ 129.97—129.100 apply Statewide to the owner and operator of a major NOx emitting facility and the VOC requirements of this section and § \$ 129.97—129.100 apply Statewide to the owner and operator of a major VOC emitting facility that were in existence on or before July 20, 2012, for which a requirement or emission limitation, or both, has not been established in § \$ 129.51—129.52c, 129.54—129.69, 129.71—129.73, 129.75,





129.77, 129.101—129.107 and 129.301—129.310.

- (b) The NOx requirements of this section and § § 129.97—129.100 apply Statewide to the owner and operator of a NOx emitting facility and the VOC requirements of this section and § § 129.97—129.100 apply Statewide to the owner and operator of a VOC emitting facility when the installation of a new source or a modification or change in operation of an existing source after July 20, 2012, results in the source or facility meeting the definition of a major NOx emitting facility or a major VOC emitting facility and for which a requirement or an emission limitation, or both, has not been established in § § 129.51—129.52c, 129.54—129.69, 129.71—129.73, 129.75, 129.77, 129.101—129.107 and 129.301—129.310.
- (c) This section and § § 129.97—129.100 do not apply to the owner and operator of a NOx air contamination source located at a major NOx emitting facility that has the potential to emit less than 1 TPY of NOx or a VOC air contamination source located at a major VOC emitting facility that has the potential to emit less than 1 TPY of VOC.
- (d) This section and § § 129.97—129.100 do not apply to the owner and operator of a facility which is not a major NOx emitting facility or a major VOC emitting facility on or before January 1, 2017.

Authority

The provisions of this § 129.96 issued under section 5(a)(1) and (8) of the Air Pollution Control Act (35 P.S. § 4005(a)(1) and (8)).

[Source- The provisions of this § 129.96 adopted April 22, 2016, effective April 23, 2016, 46 Pa.B. 2036. Cross References -This section cited in 25 Pa. Code § 121.1 (relating to definitions); 25 Pa. Code § 129.97 (relating to presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule); 25 Pa. Code § 129.98 (relating to facility-wide or system-wide NOx emissions averaging plan general requirements); 25 Pa. Code § 129.99 (relating to alternative RACT proposal and petition for alternative compliance schedule); and 25 Pa. Code § 129.100 (relating to compliance demonstration and recordkeeping requirements).]

040 [25 Pa. Code §131.1] Purpose

This chapter establishes the maximum concentrations of air contaminants which will be permitted to exist in the ambient air, at the point of its use, under various conditions and in various areas of this Commonwealth and to provide standards against which existing air quality may be compared.

041 [25 Pa. Code §135.2]

Applicability

This chapter shall apply to all sources except the following:

- (1) A mobile air contamination source.
- (2) A source which emits nonspecific particulate matter only and for which the actual emission rate is less than 1 ton per year.
- (3) A source which emits only carbon dioxide, water vapor, nitrogen, oxygen or inert gases such as argon, helium, krypton, neon, or xenon.
 - (4) A combustion unit rated at less than 2,500,000 Btu's per hour of heat input.
 - (5) A source used in residential premises designed to house four or less families.
 - (6) Other sources and classes of sources determined to be of minor significance by the Department.

042 [25 Pa. Code §137.1]

Purpose

DEP Auth ID: 1320403

The purpose of this chapter is to prevent the excessive build-up of air pollutants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of the pollutants on the health of persons.





043 [25 Pa. Code §145.1]

Purpose

This subchapter establishes general provisions and the applicability, allowance, excess emissions, monitoring and opt-in provisions for the NOx Budget Trading Program as a means of mitigating the interstate transport of ozone and nitrogen oxides, an ozone precursor.

VIII. COMPLIANCE CERTIFICATION.

No additional compliance certifications exist except as provided in other sections of this plan approval including Section B (relating to Plan Approval General Requirements).

IX. COMPLIANCE SCHEDULE.

No compliance milestones exist.





Source ID: 178A Source Name: RAILCAR LOADING

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403

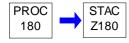
No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).





Source ID: 180 Source Name: LIMESTONE PILE

Source Capacity/Throughput:



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

V. REPORTING REQUIREMENTS.

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Any fugitive PM emissions that are detected by plant personnel shall be reported to the Shift Supervisor.

The Shift Supervisor shall record the event on the inspection log.

Appropriate corrective action shall be taken and noted in the inspection log.

VI. WORK PRACTICE REQUIREMENTS.

002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall follow best management practices for stockpile management to prevent visible fugitive emissions. These practices may include: short drop heights, windbarriers, periodic watering and visible emission observation inspections.

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

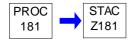




Source ID: 181 Source Name: COAL PILE

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G01 COAL PREPARATION



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403

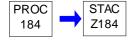




Source ID: 184 Source Name: UNPAVED ROADS

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G05 ROADWAYS



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403

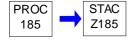




Source ID: 185 Source Name: PAVED ROADS

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G05 ROADWAYS



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403





Source ID: 209 Source Name: EAST CEMENT SILOS

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

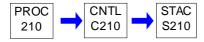
DEP Auth ID: 1320403



Source ID: 210 Source Name: WEST CEMENT SILOS

Source Capacity/Throughput: 47.000 Tons/HR

Conditions for this source occur in the following groups: G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403





Source ID: 213 Source Name: SOUTH PACKER

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403





Source ID: 214 Source Name: NORTH PACKER

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403





Source ID: 215 Source Name: MASONRY PACKER

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403





Source ID: 216 Source Name: EAST/WEST TRUCK LOADING

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403





Source ID: 217 Source Name: NEW TRUCK LOADING

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403





Source ID: 218 Source Name: RAILCAR LOADING

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403



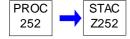


Source ID: 252 Source Name: RAW MATERIAL UNLOADING- LIMESTONE, COAL, SLAG

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G02 RAW MATERIAL UNLOADING

G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403

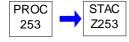




Source ID: 253 Source Name: RAW MATERIAL UNLOADING-ADDITIVES

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

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IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403



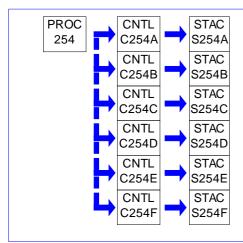


Source ID: 254 Source Name: RAW MATERIAL STORAGE

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G02 RAW MATERIAL UNLOADING

G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

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V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403



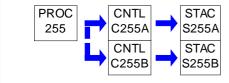


Source ID: 255 Source Name: RAW MATERIAL STORAGE FEED- ADDITIVES

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G02 RAW MATERIAL UNLOADING

G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

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V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403



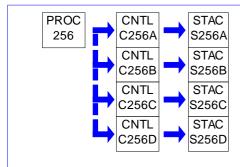


Source ID: 256 Source Name: RAW MATERIAL STORAGE RECLAIM TO RAW MILL FEED-LIMESTONE

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G02 RAW MATERIAL UNLOADING

G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

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V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403



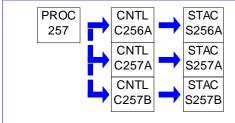


Source ID: 257 Source Name: RAW MATERIAL STORAGE RECLAIM TO RAW MILL FEED - ADDIT/LIMEST

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G02 RAW MATERIAL UNLOADING

G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

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VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403



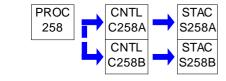


Source ID: 258 Source Name: RAW MILL FEED INCL. RECYCLE

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G02 RAW MATERIAL UNLOADING

G03 PYROPROCESSING SYSTEM/RAW MILL



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

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V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403

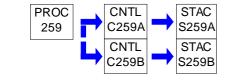




Source ID: 259 Source Name: RAW MILL

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G03 PYROPROCESSING SYSTEMRAW MILL



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

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No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

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VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403

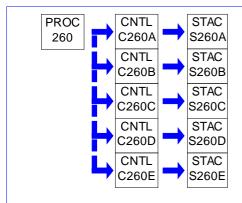




Source ID: 260 Source Name: BLENDING (HOMOGENIZING) SILOS

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

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IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403

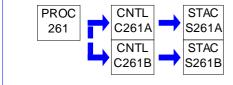




Source ID: 261 Source Name: BLENDING SILO RECLAIM TO PREHEATER KILN FEED

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

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IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403



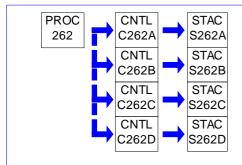


Source ID: 262 Source Name: COAL MILL & KILN BURNER & CALCINER FEED STORAGE & RECLAIM

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G01 COAL PREPARATION

G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

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IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403





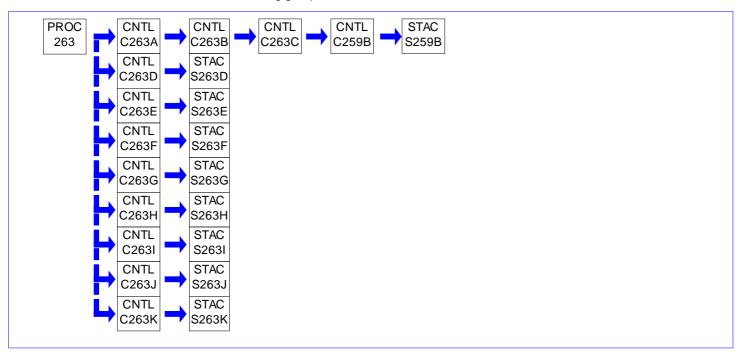
Source ID: 263 Source Name: PREHEATER/PRECALCINER KILN

> Source Capacity/Throughput: N/A **Bituminous** #2 Oil N/A

N/A

N/A N/A

Conditions for this source occur in the following groups: G03 PYROPROCESSING SYSTEMRAW MILL



RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. **TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

MONITORING REQUIREMENTS. III.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

REPORTING REQUIREMENTS.

DEP Auth ID: 1320403





VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

DEP Auth ID: 1320403

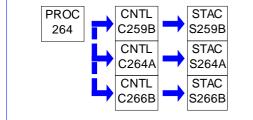




Source ID: 264 Source Name: CLINKER COOLER

Source Capacity/Throughput: N/A CLINKER SHORT TONS

Conditions for this source occur in the following groups: G03 PYROPROCESSING SYSTEMRAW MILL



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

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IV. RECORDKEEPING REQUIREMENTS.

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V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

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VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403

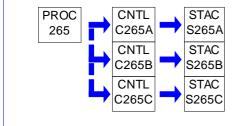




Source ID: 265 Source Name: MAIN DUST COLLECTOR DUST RECLAIM

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G03 PYROPROCESSING SYSTEMRAW MILL



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403



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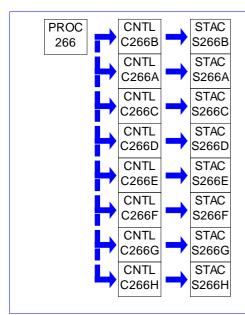
WAMPUM CEMENT PLT/LAWRENCE

SECTION D. **Source Level Plan Approval Requirements**

Source ID: 266 Source Name: CLINKER DOME STORAGE AND RECLAIM

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G04 OTHER AFFECTED SOURCES



RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. **TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

MONITORING REQUIREMENTS. III.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

٧. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

DEP Auth ID: 1320403







VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

DEP Auth ID: 1320403 DEP PF ID: 246188 Page 64 PROPOSED 05/04/2022 08:43 AM





Source ID: 267 Source Name: CLINKER DOME RECLAIM FEED TO CLINKER SILO#15

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403

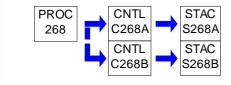




Source ID: 268 Source Name: CLINKER DOME RECLAIM FEED TO MATL STORAGE BLG

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403





Source ID: 269 Source Name: CLINKER DOME RECLAIM FEED TO CLINKER SILO #1

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403

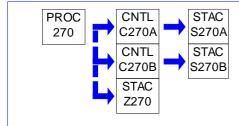




Source ID: 270 Source Name: STORAGE RECLAIM FEED TO FINISH MILL #1

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403

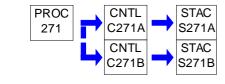




Source ID: 271 Source Name: FINISH MILL #1

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403

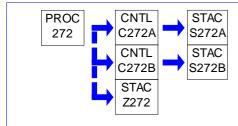




Source ID: 272 Source Name: STORAGE RECLAIM FEED TO RAW MILL #2

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403

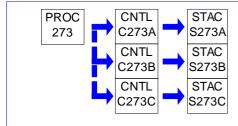




Source ID: 273 Source Name: FINISH MILL #2

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G04 OTHER AFFECTED SOURCES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403

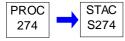




Source ID: 274 Source Name: EMERGENCY DIESEL ENGINE 1475 BHP

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G06 EMERGENCY ENGINES



I. RESTRICTIONS.

Emission Restriction(s).

001 [40 CFR Part 1039 Cntrl of Emissns Frm New/In-Use Nonroad Compressn-Ignition Engs §40 CFR 1039.105] Subpart B - Emission Standards and Related Requirements

What smoke standards must my engines meet?

The smoke standards in this section apply to all engines subject to emission standards under this part, except for the following engines:

- (1) Single-cylinder engines.
- (2) Constant-speed engines.
- (3) Engines certified to a PM emission standard or FEL of 0.07 g/kW-hr or lower.
- (b) Measure smoke as specified in § 1039.501(c). Smoke from your engines may not exceed the following standards:
- (1) 20 percent during the acceleration mode.
- (2) 15 percent during the lugging mode.
- (3) 50 percent during the peaks in either the acceleration or lugging modes.

002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4205]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal compression.

- a) N/A
- (b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in § 60.4202*, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.
- (c) N/A
- (d)-(f) N/A

DEP Auth ID: 1320403

 $[71\ FR\ 39172, July\ 11,\ 2006,\ as\ amended\ at\ 76\ FR\ 37969,\ June\ 28,\ 2011;\ 86\ FR\ 34358,\ June\ 29,\ 2021]$

*[§ 60.4202(a)(2) - For engines with a rated power greater than or equal to 37 KW (50 HP), the Tier 2 or Tier 3 emission standards for new nonroad CI engines for the same rated power as described in 40 CFR part 1039, appendix I**, for all pollutants and the smoke standards as specified in 40 CFR 1039.105 beginning in model year 2007.[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011; 81 FR 44219, July 7, 2016; 86 FR 34358, June 29, 2021]]

**[40 CFR part 1039, appendix I, Table 2 to Appendix I - Tier 2 Emission Standards: For Rated power KW>560, starting in model year 2006, NOx +NMHC = 6.4 g/KW-hr; CO=3.5 g/KW-hr; and PM =0.20 g/KW-hr]

PROPOSED 05/04/2022 08:43 AM





II. **TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

MONITORING REQUIREMENTS. III.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

REPORTING REQUIREMENTS.

003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6645]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal **Combustion Engines**

What notifications must I submit and when?

- (a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;
- (1) N/A.
- (2) N/A
- (3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
- (4) N/A.
- (5) N/A
- (b)-(e) N/A
- (f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with § 63.6590(b), your notification should include the information in § 63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).

(g) - (i) N/A

DEP Auth ID: 1320403

[73 FR 3606 Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6705, Jan. 30, 2013; 85 FR 73912, Nov. 19, 2020]

WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6585]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal **Combustion Engines**

Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

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SECTION D. Source Level Plan Approval Requirements

- (a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.
- (b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.
- (c) An area source of HAP emissions is a source that is not a major source.

(d)-(f) N/A

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008; 78 FR 6700, Jan. 30, 2013]

005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6590]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What parts of my plant does this subpart cover?

This subpart applies to each affected source.

- (a) Affected source. An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.
- (1) N/A
- (2) New stationary RICE.
- (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.
- (ii) N/A
- (iii) N/A
- (3) N/A
- (b) Stationary RICE subject to limited requirements.

DEP PF ID: 246188

- (1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of § 63.6645(f).
- (i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii).
- (ii) N/A
- (2) N/A
- (3) N/A
- (c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IJII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.
- (1)-(5) N/A
- (6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
- (7) N/A

DEP Auth ID: 1320403

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010; 78 FR 6700, Jan. 30, 2013]

Page 74

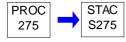




Source ID: 275 Source Name: FIRE PUMP ENGINE 183 BHP

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G06 EMERGENCY ENGINES



I. RESTRICTIONS.

Emission Restriction(s).

001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4205]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What emission standards must I meet for emergency engines if I am an owner or operator of a stationary Cl internal co

- (a) N/A
- (b) N/A
- (c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4* to this subpart, for all pollutants.
- (d)- (f) N/A

*[Table 4 to Subpart IIII of Part 60- Emission Standards for Stationary Fire Pump Engines:

For Maximum Engine Power: 130=KW<225 (175=HP<300); Model years: 2009+

NMHC + NOX: 4.0 g/KW-hr (3.0 g/hp-hr);

CO: 3.5 g/KW-hr (2.6 g/hp-hr);

PM: 0.20 g/KW-hr (0.15 g/hp-hr)]

[In model years 2009-2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.]

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011; 86 FR 34358, June 29, 2021]

002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6590]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What parts of my plant does this subpart cover?

DEP PF ID:

246188

- (a) Affected source. An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.
- (1) N/A
- (2) New stationary RICE.
- (i) N/A
- (ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.
- (3) N/A
- (b) N/A

DEP Auth ID: 1320403

(c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

Page 75





(1)-(5)-N/A

(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(7) N/A

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010; 78 FR 6700, Jan. 30, 2013]

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6585]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Am I subject to this subpart?

DEP Auth ID: 1320403

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

- (a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.
- (b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.



(c) An area source of HAP emissions is a source that is not a major source.

(d)- (f) N/A

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008; 78 FR 6700, Jan. 30, 2013]

DEP Auth ID: 1320403 DEP PF ID: 246188 Page 77 PROPOSED 05/04/2022 08:43 AM





Source ID: CT Source Name: COOLING TOWER

Source Capacity/Throughput:

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.13]

Processes

- (a) Subsections (b) and (c) apply to all processes except combustion units, incinerators and pulp mill smelt dissolving tanks.
 - (b) N/A
- (c) For processes not listed in subsection (b)(1), including but not limited to, coke oven battery waste heat stacks and autogeneous zinc coker waste heat stacks, the following shall apply:
- (1) Prohibited emissions. No person may permit the emission into the outdoor atmosphere of particulate matter from any process not listed in subsection (b)(1) in a manner that the concentration of particulate matter in the effluent gas exceeds any of the following:
- (i) .04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.
 - (ii) The rate determined by the formula:

A = 6000/E

where:

A = Allowable emissions in grains per dry standard cubic foot, and

E = Effluent gas volume in dry standard cubic feet per minute,

when E is equal to or greater than 150,000 but less than 300,000.

- (iii) .02 grain per dry standard cubic foot, when the effluent gas volume is greater than 300,000 dry standard cubic feet per minute.
 - (2) Allowable emissions. Allowable emissions under this subsection are graphically indicated in Appendix C.

(d) N/A

DEP Auth ID: 1320403

002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Total dissolved solids (TDS) of the cooling tower water shall not exceed 1,500 ppm.

003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Owner/Operator shall install and maintain a drift eliminator with a manufacturer's guaranteed drift rate of less than 0.001 % of the circulating water flow rate.

II. TESTING REQUIREMENTS.

004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Owner/Operator shall sample, analyze, and record the circulating water TDS content on a monthly basis using USGS I-1750-85, ASTM D5907-03, or other equivalent test method as requested by the applicant in writing and approved in writing by the Department.





III. MONITORING REQUIREMENTS.

005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Owner/Operator shall continuously monitor and record the circulating water and make up water flow rates on a 24-hour average.

IV. RECORDKEEPING REQUIREMENTS.

006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Owner/Operator shall maintain the following comprehensive and accurate records:

- Monthly circulating water TDS content.
- Daily circulating water and make up water flow rates.
- PM, PM10, and PM2.5 emissions on a 12-month rolling basis based upon the measured parameters.

007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The emissions from the cooling tower shall be calculated and recorded monthly on 12-month rolling basis.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).





Group Name: G01 COAL PREPARATION

Group Description: NSPS Subpart Y- Coal Preparation and Processing Plant and Storage

Sources included in this group

I	D	Name
1	81	COAL PILE
2	62	COAL MILL & KILN BURNER & CALCINER FEED STORAGE & RECLAIM

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.13]

Processes

- (a) Subsections (b) and (c) apply to all processes except combustion units, incinerators and pulp mill smelt dissolving tanks.
 - (b) N/A
- (c) For processes not listed in subsection (b)(1), including but not limited to, coke oven battery waste heat stacks and autogeneous zinc coker waste heat stacks, the following shall apply:
- (1) Prohibited emissions. No person may permit the emission into the outdoor atmosphere of particulate matter from any process not listed in subsection (b)(1) in a manner that the concentration of particulate matter in the effluent gas exceeds any of the following:
- (i) .04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.
 - (ii) The rate determined by the formula:

A = 6000/E

where:

A = Allowable emissions in grains per dry standard cubic foot, and

E = Effluent gas volume in dry standard cubic feet per minute,

when E is equal to or greater than 150,000 but less than 300,000.

- (iii) .02 grain per dry standard cubic foot, when the effluent gas volume is greater than 300,000 dry standard cubic feet per minute.
 - (2) Allowable emissions. Allowable emissions under this subsection are graphically indicated in Appendix C.
 - (d) N/A

002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.250]

Subpart Y - Standards of Performance for Coal Preparation Plants Applicability and designation of affected facility.

- (a) The provisions of this subpart apply to affected facilities in coal preparation and processing plants that process more than 181 megagrams (Mg) (200 tons) of coal per day.
- (b) N/A
- (c) N/A
- (d) The provisions in §§ 60.251, 60.252(b)(1) through (3), and (c), 60.253(b), 60.254(b) and (c), 60.255(b) through (h), 60.256(b) and (c), 60.257, and 60.258 of this subpart are applicable to any of the following affected facilities that commenced construction, reconstruction or modification after May 27, 2009: Thermal dryers, pneumatic coal-cleaning

37-00013G





SECTION E. Source Group Plan Approval Restrictions.

equipment (air tables), coal processing and conveying equipment (including breakers and crushers), coal storage systems, transfer and loading systems, and open storage piles.

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.254]

Subpart Y - Standards of Performance for Coal Preparation Plants Test methods and procedures.

(a) N/A

DEP Auth ID: 1320403

DEP PF ID:

246188

- (b) On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified after April 28, 2008, must meet the requirements in paragraphs (b)(1) through (3) of this section, as applicable to the affected facility.
- (1) Except as provided in paragraph (b)(3) of this section, the owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit 10 percent opacity or greater.
- (2) The owner or operator must not cause to be discharged into the atmosphere from any mechanical vent on an affected facility gases which contain particulate matter in excess of 0.023 g/dscm (0.010 gr/dscf).
- (3) Equipment used in the loading, unloading, and conveying operations of open storage piles are not subject to the opacity limitations of paragraph (b)(1) of this section.
- (c) The owner or operator of an open storage pile, which includes the equipment used in the loading, unloading, and conveying operations of the affected facility, constructed, reconstructed, or modified after May 27, 2009, must prepare and operate in accordance with a submitted fugitive coal dust emissions control plan that is appropriate for the site conditions as specified in paragraphs (c)(1) through (6) of this section.
- (1) The fugitive coal dust emissions control plan must identify and describe the control measures the owner or operator will use to minimize fugitive coal dust emissions from each open storage pile.
- (2) For open coal storage piles, the fugitive coal dust emissions control plan must require that one or more of the following control measures be used to minimize to the greatest extent practicable fugitive coal dust: Locating the source inside a partial enclosure, installing and operating a water spray or fogging system, applying appropriate chemical dust suppression agents on the source (when the provisions of paragraph (c)(6) of this section are met), use of a wind barrier, compaction, or use of a vegetative cover. The owner or operator must select, for inclusion in the fugitive coal dust emissions control plan, the control measure or measures listed in this paragraph that are most appropriate for site conditions. The plan must also explain how the measure or measures selected are applicable and appropriate for site conditions. In addition, the plan must be revised as needed to reflect any changing conditions at the source.
- (3) Any owner or operator of an affected facility that is required to have a fugitive coal dust emissions control plan may petition the Administrator to approve, for inclusion in the plan for the affected facility, alternative control measures other than those specified in paragraph (c)(2) of this section as specified in paragraphs (c)(3)(i) through (iv) of this section.
- (i) The petition must include a description of the alternative control measures, a copy of the fugitive coal dust emissions control plan for the affected facility that includes the alternative control measures, and information sufficient for EPA to evaluate the demonstrations required by paragraph (c)(3)(ii) of this section.
- (ii) The owner or operator must either demonstrate that the fugitive coal dust emissions control plan that includes the alternate control measures will provide equivalent overall environmental protection or demonstrate that it is either economically or technically infeasible for the affected facility to use the control measures specifically identified in paragraph (c)(2).
- (iii) While the petition is pending, the owner or operator must comply with the fugitive coal dust emissions control plan including the alternative control measures submitted with the petition. Operation in accordance with the plan submitted with the petition shall be deemed to constitute compliance with the requirement to operate in accordance with a fugitive coal dust emissions control plan that contains one of the control measures specifically identified in paragraph (c)(2) of this section while the petition is pending.
- (iv) If the petition is approved by the Administrator, the alternative control measures will be approved for inclusion in the

Page 81





fugitive coal dust emissions control plan for the affected facility. In lieu of amending this subpart, a letter will be sent to the facility describing the specific control measures approved. The facility shall make any such letters and the applicable fugitive coal dust emissions control plan available to the public. If the Administrator determines it is appropriate, the conditions and requirements of the letter can be reviewed and changed at any point.

- (4) The owner or operator must submit the fugitive coal dust emissions control plan to the Administrator or delegated authority as specified in paragraphs (c)(4)(i) and (c)(4)(i) of this section.
- (i) The plan must be submitted to the Administrator or delegated authority prior to startup of the new, reconstructed, or modified affected facility, or 30 days after the effective date of this rule, whichever is later.
- (ii) The plan must be revised as needed to reflect any changing conditions at the source. Such revisions must be dated and submitted to the Administrator or delegated authority before a source can operate pursuant to these revisions. The Administrator or delegated authority may also object to such revisions as specified in paragraph (c)(5) of this section.
- (5) The Administrator or delegated authority may object to the fugitive coal dust emissions control plan as specified in paragraphs (c)(5)(i) and (c)(5)(ii) of this section.
- (i) The Administrator or delegated authority may object to any fugitive coal dust emissions control plan that it has determined does not meet the requirements of paragraphs (c)(1) and (c)(2) of this section.
- (ii) If an objection is raised, the owner or operator, within 30 days from receipt of the objection, must submit a revised fugitive coal dust emissions control plan to the Administrator or delegated authority. The owner or operator must operate in accordance with the revised fugitive coal dust emissions control plan. The Administrator or delegated authority retain the right, under paragraph (c)(5) of this section, to object to the revised control plan if it determines the plan does not meet the requirements of paragraphs (c)(1) and (c)(2) of this section.
- (6) Where appropriate chemical dust suppression agents are selected by the owner or operator as a control measure to minimize fugitive coal dust emissions, (1) only chemical dust suppressants with Occupational Safety and Health Administration (OSHA)-compliant material safety data sheets (MSDS) are to be allowed; (2) the MSDS must be included in the fugitive coal dust emissions control plan; and (3) the owner or operator must consider and document in the fugitive coal dust emissions control plan the site-specific impacts associated with the use of such chemical dust suppressants.

[Compliance with this condition ensures compliance with the 25 Pa Code 123.41 opacity limitation.]

II. TESTING REQUIREMENTS.

004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.255] Subpart Y - Standards of Performance for Coal Preparation Plants Performance tests and other compliance requirements.

(a) N/A

- (b) An owner or operator of each affected facility that commenced construction, reconstruction, or modification after April 28, 2008, must conduct performance tests according to the requirements of §60.8 and the methods identified in §60.257 to demonstrate compliance with the applicable emissions standards in this subpart as specified in paragraphs (b)(1) and (2) of this section.
- (1) For each affected facility subject to a PM, SO2, or combined NOX and CO emissions standard, an initial performance test must be performed. Thereafter, a new performance test must be conducted according the requirements in paragraphs (b)(1)(i) through (iii) of this section, as applicable.
- (i) If the results of the most recent performance test demonstrate that emissions from the affected facility are greater than 50 percent of the applicable emissions standard, a new performance test must be conducted within 12 calendar months of the date that the previous performance test was required to be completed.
- (ii) If the results of the most recent performance test demonstrate that emissions from the affected facility are 50 percent or less of the applicable emissions standard, a new performance test must be conducted within 24 calendar months of the date that the previous performance test was required to be completed.
- (iii) An owner or operator of an affected facility that has not operated for the 60 calendar days prior to the due date of a performance test is not required to perform the subsequent performance test until 30 calendar days after the next operating day.
- (2) For each affected facility subject to an opacity standard, an initial performance test must be performed. Thereafter, a new

37-00013G



SECTION E. Source Group Plan Approval Restrictions.

performance test must be conducted according to the requirements in paragraphs (b)(2)(i) through (iii) of this section, as applicable, except as provided for in paragraphs (e) and (f) of this section. Performance test and other compliance requirements for coal truck dump operations are specified in paragraph (h) of this section.

- (i) If any 6-minute average opacity reading in the most recent performance test exceeds half the applicable opacity limit, a new performance test must be conducted within 90 operating days of the date that the previous performance test was required to be completed.
- (ii) If all 6-minute average opacity readings in the most recent performance test are equal to or less than half the applicable opacity limit, a new performance test must be conducted within 12 calendar months of the date that the previous performance test was required to be completed.
- (iii) An owner or operator of an affected facility continuously monitoring scrubber parameters as specified in §60.256(b)(2) is exempt from the requirements in paragraphs (b)(2)(i) and (ii) if opacity performance tests are conducted concurrently with (or within a 60-minute period of) PM performance tests.
- (c) If any affected coal processing and conveying equipment (e.g., breakers, crushers, screens, conveying systems), coal storage systems, or coal transfer and loading systems that commenced construction, reconstruction, or modification after April 28, 2008, are enclosed in a building, and emissions from the building do not exceed any of the standards in §60.254 that apply to the affected facility, then the facility shall be deemed to be in compliance with such standards.
- (d) An owner or operator of an affected facility (other than a thermal dryer) that commenced construction, reconstruction, or modification after April 28, 2008, is subject to a PM emission standard and uses a control device with a design controlled potential PM emissions rate of 1.0 Mg (1.1 tons) per year or less is exempted from the requirements of paragraphs (b)(1)(i) and (ii) of this section provided that the owner or operator meets all of the conditions specified in paragraphs (d)(1) through (3) of this section. This exemption does not apply to thermal dryers.
- (1) PM emissions, as determined by the most recent performance test, are less than or equal to the applicable limit,
- (2) The control device manufacturer's recommended maintenance procedures are followed, and
- (3) All 6-minute average opacity readings from the most recent performance test are equal to or less than half the applicable opacity limit or the monitoring requirements in paragraphs (e) or (f) of this section are followed.
- (e) For an owner or operator of a group of up to five of the same type of affected facilities that commenced construction, reconstruction, or modification after April 28, 2008, that are subject to PM emissions standards and use identical control devices, the Administrator or delegated authority may allow the owner or operator to use a single PM performance test for one of the affected control devices to demonstrate that the group of affected facilities is in compliance with the applicable emissions standards provided that the owner or operator meets all of the conditions specified in paragraphs (e)(1) through (3) of this section.
- (1) PM emissions from the most recent performance test for each individual affected facility are 90 percent or less of the applicable PM standard;
- (2) The manufacturer's recommended maintenance procedures are followed for each control device; and
- (3) A performance test is conducted on each affected facility at least once every 5 calendar years.
- (f) As an alternative to meeting the requirements in paragraph (b)(2) of this section, an owner or operator of an affected facility that commenced construction, reconstruction, or modification after April 28, 2008, may elect to comply with the requirements in paragraph (f)(1) or (f)(2) of this section.
- (1) Monitor visible emissions from each affected facility according to the requirements in paragraphs (f)(1)(i) through (iii) of this section.
- (i) Conduct one daily 15-second observation each operating day for each affected facility (during normal operation) when the coal preparation and processing plant is in operation. Each observation must be recorded as either visible emissions observed or no visible emissions observed. Each observer determining the presence of visible emissions must meet the training requirements specified in §2.3 of Method 22 of appendix A-7 of this part. If visible emissions are observed during any 15-second observation, the owner or operator must adjust the operation of the affected facility and demonstrate within 24 hours that no visible emissions are observed from the affected facility. If visible emissions are observed, a Method 9, of appendix A-4 of this part, performance test must be conducted within 45 operating days.
- (ii) Conduct monthly visual observations of all process and control equipment. If any deficiencies are observed, the necessary maintenance must be performed as expeditiously as possible.
- (iii) Conduct a performance test using Method 9 of appendix A-4 of this part at least once every 5 calendar years for each





affected facility.

DEP Auth ID: 1320403

- (2) Prepare a written site-specific monitoring plan for a digital opacity compliance system for approval by the Administrator or delegated authority. The plan shall require observations of at least one digital image every 15 seconds for 10-minute periods (during normal operation) every operating day. An approvable monitoring plan must include a demonstration that the occurrences of visible emissions are not in excess of 5 percent of the observation period. For reference purposes in preparing the monitoring plan, see OAQPS "Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems." This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Group (D243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods. The monitoring plan approved by the Administrator or delegated authority shall be implemented by the owner or operator.
- (g) As an alternative to meeting the requirements in paragraph (b)(2) of this section, an owner or operator of an affected facility that commenced construction, reconstruction, or modification after April 28, 2008, subject to a visible emissions standard under this subpart may install, operate, and maintain a continuous opacity monitoring system (COMS). Each COMS used to comply with provisions of this subpart must be installed, calibrated, maintained, and continuously operated according to the requirements in paragraphs (g)(1) and (2) of this section.
- (1) The COMS must meet Performance Specification 1 in 40 CFR part 60, appendix B.
- (2) The COMS must comply with the quality assurance requirements in paragraphs (g)(2)(i) through (v) of this section.
- (i) The owner or operator must automatically (intrinsic to the opacity monitor) check the zero and upscale (span) calibration drifts at least once daily. For particular COMS, the acceptable range of zero and upscale calibration materials is as defined in the applicable version of Performance Specification 1 in 40 CFR part 60, appendix B.
- (ii) The owner or operator must adjust the zero and span whenever the 24-hour zero drift or 24-hour span drift exceeds 4 percent opacity. The COMS must allow for the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified. The optical surfaces exposed to the effluent gases must be cleaned prior to performing the zero and span drift adjustments, except for systems using automatic zero adjustments. For systems using automatic zero adjustments, the optical surfaces must be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.
- (iii) The owner or operator must apply a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. All procedures applied must provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photodetector assembly.
- (iv) Except during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments, the COMS must be in continuous operation and must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.
- (v) The owner or operator must reduce all data from the COMS to 6-minute averages. Six-minute opacity averages must be calculated from 36 or more data points equally spaced over each 6-minute period. Data recorded during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments must not be included in the data averages. An arithmetic or integrated average of all data may be used.
- (h) The owner or operator of each affected coal truck dump operation that commenced construction, reconstruction, or modification after April 28, 2008, must meet the requirements specified in paragraphs (h)(1) through (3) of this section.
- (1) Conduct an initial performance test using Method 9 of appendix A-4 of this part according to the requirements in paragraphs (h)(1)(i) and(ii).
- (i) Opacity readings shall be taken during the duration of three separate truck dump events. Each truck dump event commences when the truck bed begins to elevate and concludes when the truck bed returns to a horizontal position.
- (ii) Compliance with the applicable opacity limit is determined by averaging all 15-second opacity readings made during the duration of three separate truck dump events.
- (2) Conduct monthly visual observations of all process and control equipment. If any deficiencies are observed, the necessary maintenance must be performed as expeditiously as possible.
- (3) Conduct a performance test using Method 9 of appendix A-4 of this part at least once every 5 calendar years for each affected facility.

Page 84

005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.257] Subpart Y - Standards of Performance for Coal Preparation Plants Test methods and procedures.

DEP PF ID: 246188



- (a) The owner or operator must determine compliance with the applicable opacity standards as specified in paragraphs (a)(1) through (3) of this section.
- (1) Method 9 of appendix A-4 of this part and the procedures in §60.11 must be used to determine opacity, with the exceptions specified in paragraphs (a)(1)(i) and (ii).
- (i) The duration of the Method 9 of appendix A-4 of this part performance test shall be 1 hour (ten 6-minute averages).
- (ii) If, during the initial 30 minutes of the observation of a Method 9 of appendix A-4 of this part performance test, all of the 6-minute average opacity readings are less than or equal to half the applicable opacity limit, then the observation period may be reduced from 1 hour to 30 minutes.
- (2) To determine opacity for fugitive coal dust emissions sources, the additional requirements specified in paragraphs (a)(2)(i) through (iii) must be used.
- (i) The minimum distance between the observer and the emission source shall be 5.0 meters (16 feet), and the sun shall be oriented in the 140-degree sector of the back.
- (ii) The observer shall select a position that minimizes interference from other fugitive coal dust emissions sources and make observations such that the line of vision is approximately perpendicular to the plume and wind direction.
- (iii) The observer shall make opacity observations at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. Water vapor is not considered a visible emission.
- (3) A visible emissions observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions specified in paragraphs (a)(3)(i) through (iii) of this section are met.
- (i) No more than three emissions points may be read concurrently.
- (ii) All three emissions points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.
- (iii) If an opacity reading for any one of the three emissions points is within 5 percent opacity from the applicable standard (excluding readings of zero opacity), then the observer must stop taking readings for the other two points and continue reading just that single point.

(b) N/A

III. MONITORING REQUIREMENTS.

006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Fabric filters shall be equipped with a magnehelic gauge or equivalent to continuously measure pressure drop across the control device per the requirements of the Dust Collector Monitoring Plan described in Section C.

007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall take pressure drop readings weekly for those dust collectors equipped with devices for continuously monitoring the pressure drop per the Dust Collector Monitoring Plan described in Section C.

008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.256]

Subpart Y - Standards of Performance for Coal Preparation Plants

Continuous monitoring requirements.

(a) N/A

- (b) The owner or operator of each affected facility constructed, reconstructed, or modified after April 28, 2008, that has one or more mechanical vents must install, calibrate, maintain, and continuously operate the monitoring devices specified in paragraphs (b)(1) through (3) of this section, as applicable to the mechanical vent and any control device installed on the vent.
- (1) For mechanical vents with fabric filters (baghouses) with design controlled potential PM emissions rates of 25 Mg (28 tons) per year or more, a bag leak detection system according to the requirements in paragraph (c) of this section.
- (2) N/A- No mechanical vents with wet scrubbers identified.
- (3) For mechanical vents with control equipment other than wet scrubbers, a monitoring device for the continuous measurement of the reagent injection flow rate to the control equipment, as applicable. The monitoring device is to be certified by the manufacturer to be accurate within ±5 percent of design injection flow rate. An average reagent injection flow





rate value must be determined during each performance test. The reagent injection flow rate must then be maintained within 10 percent of the value established during the most recent performance test on an operating day average basis.

- (c) Each bag leak detection system used to comply with provisions of this subpart must be installed, calibrated, maintained, and continuously operated according to the requirements in paragraphs (c)(1) through (3) of this section.
- (1) The bag leak detection system must meet the specifications and requirements in paragraphs (c)(1)(i) through (viii) of this section.
- (i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per dry standard cubic meter (mg/dscm) (0.00044 grains per actual cubic foot (gr/acf)) or less.
- (ii) The bag leak detection system sensor must provide output of relative PM loadings. The owner or operator shall continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger).
- (iii) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (c)(1)(iv) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.
- (iv) In the initial adjustment of the bag leak detection system, the owner or operator must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.
- (v) Following initial adjustment, the owner or operator must not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority except as provided in paragraph (c)(2)(vi) of this section.
- (vi) Once per quarter, the owner or operator may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by paragraph (c)(2) of this section.
- (vii) The owner or operator must install the bag leak detection sensor downstream of the fabric filter.
- (viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.
- (2) The owner or operator must develop and submit to the Administrator or delegated authority for approval a site-specific monitoring plan for each bag leak detection system. This plan must be submitted to the Administrator or delegated authority 30 days prior to startup of the affected facility. The owner or operator must operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. Each monitoring plan must describe the items in paragraphs (c)(2)(i) through (vi) of this section.
- (i) Installation of the bag leak detection system;
- (ii) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established;
- (iii) Operation of the bag leak detection system, including quality assurance procedures;
- (iv) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;
- (v) How the bag leak detection system output will be recorded and stored; and
- (vi) Corrective action procedures as specified in paragraph (c)(3) of this section. In approving the site-specific monitoring plan, the Administrator or delegated authority may allow the owner and operator more than 3 hours to alleviate a specific condition that causes an alarm if the owner or operator identifies in the monitoring plan this specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.
- (3) For each bag leak detection system, the owner or operator must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. Except as provided in paragraph (c)(2)(vi) of this section, the owner or operator must alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:
- (i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;
- (ii) Sealing off defective bags or filter media;

- (iii) Replacing defective bags or filter media or otherwise repairing the control device;
- (iv) Sealing off a defective fabric filter compartment;
- (v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or
- (vi) Shutting down the process producing the PM emissions.





IV. RECORDKEEPING REQUIREMENTS.

009 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Pressure drop reading records, in accordance with the Dust Collector Monitoring Plan, shall be kept along with supporting information and calculations used to demonstrate compliance with the PM emission limitation.

010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.258]

Subpart Y - Standards of Performance for Coal Preparation Plants

Reporting and recordkeeping.

- (a) The owner or operator of a coal preparation and processing plant that commenced construction, reconstruction, or modification after April 28, 2008, shall maintain in a logbook (written or electronic) on-site and make it available upon request. The logbook shall record the following:
- (1) The manufacturer's recommended maintenance procedures and the date and time of any maintenance and inspection activities and the results of those activities. Any variance from manufacturer recommendation, if any, shall be noted.
- (2) The date and time of periodic coal preparation and processing plant visual observations, noting those sources with visible emissions along with corrective actions taken to reduce visible emissions. Results from the actions shall be noted.
- (3) The amount and type of coal processed each calendar month.
- (4) The amount of chemical stabilizer or water purchased for use in the coal preparation and processing plant.
- (5) Monthly certification that the dust suppressant systems were operational when any coal was processed and that manufacturer's recommendations were followed for all control systems. Any variance from the manufacturer's recommendations, if any, shall be noted.
- (6) Monthly certification that the fugitive coal dust emissions control plan was implemented as described. Any variance from the plan, if any, shall be noted. A copy of the applicable fugitive coal dust emissions control plan and any letters from the Administrator providing approval of any alternative control measures shall be maintained with the logbook. Any actions, e.g., objections, to the plan and any actions relative to the alternative control measures, e.g., approvals, shall be noted in the logbook as well.
- (7) For each bag leak detection system, the owner or operator must keep the records specified in paragraphs (a)(7)(i) through (iii) of this section.
- (i) Records of the bag leak detection system output;
- (ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection settings; and
- (iii) The date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and whether the cause of the alarm was alleviated within 3 hours of the alarm.
- (8) A copy of any applicable monitoring plan for a digital opacity compliance system and monthly certification that the plan was implemented as described. Any variance from plan, if any, shall be noted.
- (9) During a performance test of a wet scrubber, and each operating day thereafter, the owner or operator shall record the measurements of the scrubber pressure loss, water supply flow rate, and pH of the wet scrubber liquid.
- (10) During a performance test of control equipment other than a wet scrubber, and each operating day thereafter, the owner or operator shall record the measurements of the reagent injection flow rate, as applicable.

V. REPORTING REQUIREMENTS.

011 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Any fugitive PM emissions that are detected by plant personnel shall be reported to the Shift Supervisor. The Shift Supervisor shall record the event on the inspection log. Appropriate corrective action shall be taken and noted in the inspection log.

012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.258]

Subpart Y - Standards of Performance for Coal Preparation Plants

Reporting and recordkeeping.

Pursuant to §60.258 (b) For the purpose of reports required under section 60.7(c), any owner operator subject to the provisions of this subpart also shall report semiannually periods of excess emissions as follow:

(1) N/A

DEP Auth ID: 1320403

(2) The owner or operator of an affected facility with control equipment other than a wet scrubber shall submit semiannual



reports to the Administrator or delegated authority of occurrences when the measurements of the reagent injection flow rate, as applicable, vary by more than 10 percent from the average determined during the most recent performance test.

(3) All 6-minute average opacities that exceed the applicable standard.

Pursuant to §60.258 (c) The owner or operator of an affected facility shall submit the results of initial performance tests to the Administrator or delegated authority, consistent with the provisions of section 60.8. The owner or operator who elects to comply with the reduced performance testing provisions of sections 60.255(c) or (d) shall include in the performance test report identification of each affected facility that will be subject to the reduced testing. The owner or operator electing to comply with section 60.255(d) shall also include information which demonstrates that the control devices are identical.

Pursuant to §60.258 (d) After July 1, 2011, within 60 days after the date of completing each performance evaluation conducted to demonstrate compliance with this subpart, the owner or operator of the affected facility must submit the test data to EPA by successfully entering the data electronically into EPA's WebFIRE data base available at http://cfpub.epa.gov/oarweb/index.cfm?action = fire.main. For performance tests that cannot be entered into WebFIRE (i.e., Method 9 of appendix A-4 of this part opacity performance tests) the owner or operator of the affected facility must mail a summary copy to United States Environmental Protection Agency; Energy Strategies Group; 109 TW Alexander DR; mail code: D243-01; RTP, NC 27711.

[See also updated performance test results submittal instructions in Section C of this permit]

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).





Group Name: G02 RAW MATERIAL UNLOADING Group Description: Raw Material Unloading Sources

Sources included in this group

ID	Name
252	RAW MATERIAL UNLOADING- LIMESTONE, COAL, SLAG
254	RAW MATERIAL STORAGE
255	RAW MATERIAL STORAGE FEED- ADDITIVES
256	RAW MATERIAL STORAGE RECLAIM TO RAW MILL FEED-LIMESTONE
257	RAW MATERIAL STORAGE RECLAIM TO RAW MILL FEED - ADDIT/LIMEST
258	RAW MILL FEED INCL. RECYCLE

I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

III. MONITORING REQUIREMENTS.

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall conduct monthly visual inspections of the water flow to the discharge spray nozzles.

002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall conduct daily visual observations when the source is in operation for the presence of visible emissions.

IV. RECORDKEEPING REQUIREMENTS.

003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall keep a logbook of water spray nozzle inspections that include the date, time, observer, observation, and any corrective actions taken.

004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall keep and maintain a log of the daily observations on site for 5 years.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall use wet suppression, water sprays, or equivalent method to prevent fugitive particulate emissions while source in operation.

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).





Group Name: G03 PYROPROCESSING SYSTEM/RAW MILL

Group Description: Pyroprocessing System requirements with State, NSPS and NESHAPS

Sources included in this group

ID	Name
258	RAW MILL FEED INCL. RECYCLE
259	RAW MILL
263	PREHEATER/PRECALCINER KILN
264	CLINKER COOLER
265	MAIN DUST COLLECTOR DUST RECLAIM

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.13]

Processes

- (a) Subsections (b) and (c) apply to all processes except combustion units, incinerators and pulp mill smelt dissolving tanks.
- (b) No person may permit the emission into the outdoor atmosphere of particulate matter from any process listed in the following table, at any time, either in excess of the rate calculated by the formula in paragraph (2) or in such a manner that the concentration of particulate matter in the effluent gas exceeds 0.02 grains per dry standard cubic foot, whichever is greater:
- (1) Table.

Process Factor, F (in

Process pounds per ton)

Portland cement manufacturing:

Clinker production 150 (dry solids feed)

Clinker cooling 50 (product)

(2) Formula

 $A = .76E^{(0.42)}$

where:

DEP Auth ID: 1320403

A = Allowable emissions in pounds per hour.

 $E = Emission index = F \times W$ pounds per hour.

F = Process factor in pounds per unit, and

W = Production or charging rate in units per hour.

The factor F shall be obtained from the table in paragraph (1). The units for F and W shall be compatible.

- (3) Allowable emissions. Allowable emissions under this subsection are graphically indicated in Appendix B.
- (c) For processes not listed in subsection (b)(1), including but not limited to, coke oven battery waste heat stacks and autogeneous zinc coker waste heat stacks, the following shall apply:
- (1) Prohibited emissions. No person may permit the emission into the outdoor atmosphere of particulate matter from any process not listed in subsection (b)(1) in a manner that the concentration of particulate matter in the effluent gas exceeds any of the following:
- (i) .04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.
 - (ii) The rate determined by the formula:





A = 6000/E

where:

A = Allowable emissions in grains per dry standard cubic foot, and

E = Effluent gas volume in dry standard cubic feet per minute,

when E is equal to or greater than 150,000 but less than 300,000.

- (iii) .02 grain per dry standard cubic foot, when the effluent gas volume is greater than 300,000 dry standard cubic feet per minute.
 - (2) Allowable emissions. Allowable emissions under this subsection are graphically indicated in Appendix C.

(d) N/A

002 [25 Pa. Code §123.21]

General

- (a) This section applies to sources except those subject to other provisions of this article, with respect to the control of sulfur compound emissions.
- (b) No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO2, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

003 [25 Pa. Code §123.41]

Limitations

A person may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following:

- (1) Equal to or greater than 20% for a period or periods aggregating more than three minutes in any 1 hour.
- (2) Equal to or greater than 60% at any time.

[For some sources, this restriction has been superseded by a more stringent opacity limit of 10% as specified in 40 CFR 60 Subpart F and 40 CFR 63 Subpart LLL]

004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall not permit emission of sulfur oxides (SOx, SO2) in excess of:

- 0.4 lb/ton clinker on a 30-operating day, rolling average.

[For BACT/BAT compliance]

005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall not permit emission of nitrogen oxides (NOx) in excess of:

- 1.5 lb/ton clinker on a 30-operating day, rolling average

[For LAER/BACT/BAT compliance] [Additionally, compliance with this rate ensures compliance with the NOx RACT emission limitation of 2.36 pounds per ton of clinker produced.]

006 [25 Pa. Code §127.12b]

DEP Auth ID: 1320403

Plan approval terms and conditions.

The Permittee shall not permit emission of volatile organic compounds (VOC) in excess of:





- 0.08 lb/ton clinker on an annual average [LAER]
- 0.1 lb/ton clinker based on average of three (3)- performance test runs [LAER]

[For LAER/BACT/BAT Compliance]

007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall not permit the emission of sulfuric acid (H2SO4) in excess of:

- 0.11 lb/ton clinker on an average of three (3) performance test runs.

[For BACT/BAT Compliance]

008 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall not permit emission of ammonia (NH3) in excess of:

- 65 ppm, by volume, dry basis (ppmvd) on an hourly average.
- 11 ppmvd on an annual average

[For BAT Compliance]

009 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall not permit emission of hydrochloric acid (HCI) in excess of:

- 3 ppmvd at 7 percent O2 on a 30-operating day, rolling average

[For BAT Compliance]

010 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall not permit emission of mercury (Hg) in excess of:

21 lbs/MMton clinker on a 30-operating day, rolling average

[For BAT Compliance]

011 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall not permit emissions of dioxin/furan (D/F) in excess of:

- 0.2 ng/dscm (TEQ) @ 7 % oxygen based on rolling 3-hr average temperature readings OR
- 0.4 ng/dscm (TEQ), if temperature prior to PM control is less than or equal to 400 degrees farenheit on rolling 3-hr average temperature readings.

[BAT Compliance]

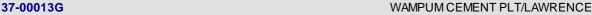
012 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall not permit emission of total hydrocarbons (THC) in excess of:

- 24 ppmvd, at 7 % oxygen, as propane, on a 30-operating day, rolling average OR
- 12 ppmvd, for total organic HAP on a 30-operating day, rolling average

[For BAT compliance]





013 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall not permit emission of greenhouse gas (CO2e) in excess of:

- 0.92 ton/ton clinker on a rolling 12-month average.

[For BACT/BAT Compliance]

014 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall not permit emission of carbon monoxide (CO) in excess of:

- 1.38 lb/ton clinker, 30- operating day rolling average

[For BACT compliance]

015 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall not permit emissions of from the Pyroprocessing System (Source IDs 259, 263, and 264) during normal operation in excess of:

Filterable Particulate Matter:

PM (filterable) - 0.02 lb/ton clinker on a 30-operating day, rolling average [Kiln & Clinker Cooler PM BACT/BAT] PM10 (filterable) - 0.0168 lb/ton clinker on a 30-operating day, rolling average PM2.5 (filterable) - 0.009 lb/ton clinker on a 30-operating day, rolling average

[Note: Emission factors are based on PM10 fraction is 84% of total PM; PM2.5 fraction is 45% of total PM]

Condensable particulate matter (PMcond):

PM(cond) - 0.16 lb/ton clinker based on a three (3) performance test run average.[Kiln PM BACT/BAT] PM10(cond) - 0.16 lb/ton clinker based on a three (3) performance test run average. PM2.5(cond) - 0.16 lb/ton clinker based on a three (3) performance test run average.

[Kiln and Clinker Cooler PM BACT/BAT]

016 [25 Pa. Code §129.97]

Presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule.

- (a) The owner and operator of a source listed in one or more of subsections (b)—(h) located at a major NOx emitting facility or major VOC emitting facility subject to § 129.96 (relating to applicability) shall comply with the applicable presumptive RACT requirement or RACT emission limitation, or both, beginning with the specified compliance date as follows, unless an alternative compliance schedule is submitted and approved under subsections (k)—(m) or § 129.99 (relating to alternative RACT proposal and petition for alternative compliance schedule):
- (1) January 1, 2017, for a source subject to § 129.96(a).
- (2) January 1, 2017, or 1 year after the date the source meets the definition of a major NOx emitting facility or major VOC emitting facility, whichever is later, for a source subject to § 129.96(b).
- (b) The owner and operator of a source specified in this subsection, which is located at a major NOx emitting facility or major VOC emitting facility subject to § 129.96 shall comply with the following:
- (1) N/A

DEP Auth ID: 1320403

(3) The applicable recordkeeping requirements of § 129.100(d), (e) or (f) (relating to compliance demonstration and





recordkeeping requirements).

- (c) N/A
- (d) Except as specified under subsection (c), the owner and operator of a combustion unit or other combustion source located at a major VOC emitting facility subject to § 129.96 shall install, maintain and operate the source in accordance with the manufacturer's specifications and with good operating practices for the control of the VOC emissions from the combustion unit or other combustion source.
- (e) N/A
- (f) N/A
- (g) N/A
- (h) The owner and operator of a Portland cement kiln subject to § 129.96 shall comply with the following applicable presumptive RACT emission limitation:
- (1) N/A
- (2) N/A
- (3) 2.36 pounds of NOx per ton of clinker produced for:
- (i) A preheater cement kiln as defined in § 145.142.
- (ii) A precalciner cement kiln as defined in § 145.142.
- (i) The requirements and emission limitations of this section supersede the requirements and emission limitations of a RACT permit issued to the owner or operator of an air contamination source subject to one or more of subsections (b)—(h) prior to April 23, 2016, under § \$ 129.91—129.95 (relating to stationary sources of NOx and VOCs) to control, reduce or minimize NOx emissions or VOC emissions, or both, from the air contamination source unless the permit contains more stringent requirements or emission limitations, or both.
- (j) The requirements and emission limitations of this section supersede the requirements and emission limitations of § § 129.201—129.205, 145.111—145.113 and 145.141—145.146 (relating to additional NOx requirements; emissions of NOx from stationary internal combustion engines; and emissions of NOx from cement manufacturing) unless the requirements or emission limitations of § \$ 129.201—129.205, § \$ 145.111—145.113 or § \$ 145.141—145.146 are more stringent.
- (k) The owner or operator of a major NOx emitting facility or a major VOC emitting facility subject to § 129.96 that includes an air contamination source subject to one or more of subsections (b)—(h) that cannot meet the applicable presumptive RACT requirement or RACT emission limitation without installation of an air cleaning device may submit a petition, in writing, requesting an alternative compliance schedule in accordance with the following:
- (1) The written petition shall be submitted to the Department or appropriate approved local air pollution control agency as soon as possible but not later than:
- (i) October 24, 2016, for a source subject to § 129.96(a).
- (ii) October 24, 2016, or 6 months after the date that the source meets the definition of a major NOx emitting facility, whichever is later, for a source subject to § 129.96(b).
- (2) The written petition must include:

- (i) A description, including make, model and location, of each affected source subject to a RACT requirement or a RACT emission limitation in one or more of subsections (b)—(h).
- (ii) A description of the proposed air cleaning device to be installed.
- (iii) A schedule containing proposed interim dates for completing each phase of the required work to install the air cleaning





device described in subparagraph (ii).

- (iv) A proposed interim emission limitation that will be imposed on the affected source until compliance is achieved with the applicable RACT requirement or RACT emission limitation.
- (v) A proposed final compliance date that is as soon as possible but not later than 3 years after the written approval of the petition by the Department or the appropriate approved local air pollution control agency. The approved petition shall be incorporated in an applicable operating permit or plan approval.
- (I) The Department or appropriate approved local air pollution control agency will review the timely and complete written petition requesting an alternative compliance schedule submitted in accordance with subsection (k) and approve or deny the petition in writing.
- (m) Approval or denial under subsection (l) of the timely and complete petition for an alternative compliance schedule submitted under subsection (k) will be effective on the date the letter of approval or denial of the petition is signed by the authorized representative of the Department or appropriate approved local air pollution control agency.

[Provisions of 129.97 adopted April 22, 2016, effective April 23, 2016, 46 Pa.B. 2036.]

[Compliance with NOx LAER ensures compliance with RACT 2 presumptive NOx limit]

017 [25 Pa. Code §145.143.]

Standard requirements.

- (a) By October 31, 2005, and each year thereafter, the owner or operator of a Portland cement kiln shall calculate the difference between the actual emissions from the unit during the period from May 1 through September 30 and the allowable emissions for that period.
- (b) The owner or operator of a Portland cement kiln may not operate a Portland cement kiln in a manner that results in NOx emissions in excess of its allowable emissions, except as otherwise specified in this section.
 - (1) N/A
- (2) Beginning May 1 through September 30, 2011, and each year thereafter, the owner or operator of a Portland cement kiln shall determine allowable emissions of NOx by multiplying the tons of clinker produced by the Portland cement kiln for the period by:
 - (i) N/A
 - (ii) N/A

- (iii) 2.36 pounds of NOx per ton of clinker produced for:
- (A) Preheater cement kilns.
- (B) Precalciner cement kilns.
- (c) The owner or operator of a Portland cement kiln subject to subsection (b)(1) shall install and operate a CEMS, and shall report CEMS emissions data, in accordance with the CEMS requirements of either Chapter 139 or 145 (relating to sampling and testing; and interstate pollution transport reduction) and calculate actual emissions using the CEMS data reported to the Department. Any data invalidated under Chapter 139 shall be substituted with data calculated using the potential emission rate for the unit or, if approved by the Department in writing, an alternative amount of emissions that is more representative of actual emissions that occurred during the period of invalid data.
- (d) The owner or operator of a Portland cement kiln subject to this section shall surrender to the Department one CAIR NOx allowance and one CAIR NOx Ozone Season allowance, as defined in 40 CFR 96.102 and 96.302 (relating to definitions), for each ton of NOx by which the combined actual emissions exceed the allowable emissions of the Portland cement kilns





subject to this section at a facility from May 1 through September 30. The surrendered allowances shall be of current year vintage. For the purposes of determining the amount of allowances to surrender, any remaining fraction of a ton equal to or greater than 0.50 ton is deemed to equal 1 ton and any fraction of a ton less than 0.50 ton is deemed to equal zero tons.

- (e) If the combined allowable emissions from Portland cement kilns at a facility from May 1 through September 30 exceed the combined actual emissions from Portland cement kilns subject to this section at the facility during the same period, the owner or operator may deduct the difference or any portion of the difference from the amount of actual emissions from Portland cement kilns at the owner or operator's other facilities located in this Commonwealth for that period.
- (f) By November 1, 2005, and each year thereafter, an owner or operator subject to this subchapter shall surrender the required NOx allowances to the Department's designated NOx allowance tracking system account, as defined in § 121.1 (relating to definitions), and shall provide in writing to the Department, the following:
 - (1) The serial number of each NOx allowance surrendered.
 - (2) The calculations used to determine the quantity of NOx allowances required to be surrendered.
- (g) If an owner or operator fails to comply with subsection (f), the owner or operator shall by December 31 surrender three NOx allowances of the current or later year vintage for each NOx allowance that was required to be surrendered by November 1.
- (h) The surrender of NOx allowances under subsection (g) does not affect the liability of the owner or operator of the Portland cement kiln for any fine, penalty or assessment, or an obligation to comply with any other remedy for the same violation, under the CAA or the act.
- (1) For purposes of determining the number of days of violation, if a facility has excess emissions for the period May 1 through September 30, each day in that period (153 days) constitutes a day in violation unless the owner or operator of the Portland cement kiln demonstrates that a lesser number of days should be considered.
 - (2) Each ton of excess emissions is a separate violation.

[Authority The provisions of this § 145.143 amended under section 5(a)(1) of the Air Pollution Control Act (35 P.S. § 4005(a)(1)). The provisions of this § 145.143 amended April 11, 2008, effective April 12, 2008, 38 Pa.B. 1705; amended June 18, 2010, effective June 19, 2010, 40 Pa.B. 3346. Immediately preceding text appears at serial pages (333589) to (333590).]

Compliance with the NNSR LAER rate ensures compliance with the NOx RACT emission limitation of 2.36 pounds per ton of clinker produced.]

018 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.62]

Subpart F- Standards of Performance for Portland Cement Plants Standard for particulate matter.

- (a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, you may not discharge into the atmosphere from any kiln any gases which:
- (1) Contain particulate matter (PM) in excess of:
- (i) N/A
- (ii) 0.02 pound per ton of clinker if construction or reconstruction of the kiln commenced after June 16, 2008.
- (iii) N/A
- (2) N/A

DEP Auth ID: 1320403

(3) Exceed 1.50 pounds of nitrogen oxide (NOX) per ton of clinker on a 30-operating day rolling average if construction, reconstruction, or modification of the kiln commences after June 16, 2008, except this limit does not apply to any alkali bypass installed on the kiln. An operating day includes all valid data obtained in any daily 24-hour period during which the kiln operates and excludes any measurements made during the daily 24-hour period when the kiln was not operating.





- (4) Exceed 0.4 pounds of sulfur dioxide (SO2) per ton of clinker on a 30-operating day rolling average if construction, reconstruction, or modification commences after June 16, 2008, unless you are demonstrating a 90 percent SO2 emissions reduction measured across the SO2 control device. An operating day includes all valid data obtained in any daily 24-hour period during which the kiln operates, and excludes any measurements made during the daily 24-hour period when the kiln was not operating.
- (b) On and after the date on which the performance test required to be conducted by § 60.8 is completed, you may not discharge into the atmosphere from any clinker cooler any gases which:
- (1) Contain PM in excess of:
- (i) 0.02 pound per ton of clinker if construction or reconstruction of the clinker cooler commences after June 16, 2008. (ii) (iv) N/A
- (2) If the kiln and clinker cooler exhaust are combined for energy efficiency purposes and sent to a single control device, the appropriate kiln PM limit may be adjusted using the procedures in § 63.1343(b) of this chapter.
- (3) If the kiln has a separated alkali bypass stack and/or an inline coal mill with a separate stack, you must combine the PM emissions from the bypass stack and/or the inline coal mill stack with the PM emissions from the main kiln exhaust to determine total PM emissions.
- (c) On and after the date on which the performance test required to be conducted by § 60.8 is completed, you may not discharge into the atmosphere from any affected facility other than the kiln and clinker cooler any gases which exhibit 10 percent opacity, or greater. [See Group G04 for other affected sources subject to this limit]
- (d) If you have an affected source subject to this subpart with a different emissions limit or requirement for the same pollutant under another regulation in title 40 of this chapter, once you are in compliance with the most stringent emissions limit or requirement, you are not subject to the less stringent requirement. Until you are in compliance with the more stringent limit, the less stringent limit continues to apply.
- (e) The compliance date for all revised monitoring and recordkeeping requirements contained in this rule will be the same as listed in 63.1351(c) unless you commenced construction as of June 16, 2008, at which time the compliance date is November 8, 2010 or upon startup, whichever is later.

[75 FR 55034, Sept. 9, 2010, as amended at 78 FR 10032, Feb. 12, 2013; 80 FR 44777, July 27, 2015]

[Compliance with this limitation ensures compliance with the 25 Pa.Code 123.41 opacity limitation.]

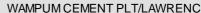
019 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1343]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

What standards apply to my kilns, clinker coolers, raw material dryers, and open clinker piles?

- (a) General. The provisions in this section apply to each kiln and any alkali bypass associated with that kiln, clinker cooler, raw material dryer, and open clinker storage pile. All D/F, HCl, and total hydrocarbon (THC) emissions limit are on a dry basis. The D/F, HCl, and THC limits for kilns are corrected to 7 percent oxygen. All THC emissions limits are measured as propane. Standards for mercury and THC are based on a rolling 30-day average. If using a CEMS to determine compliance with the HCl standard, this standard is based on a rolling 30-day average. You must ensure appropriate corrections for moisture are made when measuring flow rates used to calculate mercury emissions. The 30-day period means all operating hours within 30 consecutive kiln operating days excluding periods of startup and shutdown. All emissions limits for kilns, clinker coolers, and raw material dryers currently in effect that are superseded by the limits below continue to apply until the compliance date of the limits below, or until the source certifies compliance with the limits below, whichever is earlier.
- (b) (1)Kilns, clinker coolers, raw material dryers, raw mills, and finish mills. (1) The emissions limits for these sources are shown in Table 1.

Applicable to this project- Table 1 - Emissions Limits for Kilns, Clinker Coolers, Raw Material Dryers, Raw and Finish Mills (1)-(3) N/A



(4) New Kiln (Normal Operation) (major or area source):

PM: 0.02 lb/ton clinker

37-00013G

D/F: 0.2 ng/dscm (TEQ) @ 7 percent O2. If the average temperature at the inlet to the first PM control device (fabric filter or electrostatic precipitator) during the D/F performance test is 400 °F or less, this limit is changed to 0.40 ng/dscm (TEQ)

Mercury: 21 lb/MM tons clinker

THC: 24 ppmvd @ 7 percent O2. Measured as propane; Any source subject to the 24 ppmvd THC limit may elect to meet an alternative limit of 12 ppmvd for total organic HAP.

- (5) New kiln (Normal Operation) (Major source): HCI: 3 ppmvd @ 7 percent O2.
- (6) New Kiln Startup and shutdown subject to work practices pursuant to 40 CFR 63.1346(g).
- (7) (8) NA

DEP Auth ID: 1320403

- (9) New Clinker Cooler (Normal Operation)(major or area source): PM: 0.02 lb/ton clinker
- (10) New Clinker Cooler Startup and shutdown subject to work practices pursuant to 40 CFR 63.1348(b)(9).
- (11)-(12) Raw Material dryer: NA
- (13) Existing or New Raw Mill or Finish Mill (all modes) (major): Opacity: 10 percent
- (b)(2) When there is an alkali bypass and/or an inline coal mill with a separate stack associated with a kiln, the combined PM emissions from the kiln and the alkali bypass stack and/or the inline coal mill stack are subject to the PM emissions limit. [Existing kilns...] - NA

For new kilns that combine kiln exhaust, clinker cooler gas and/or coal mill and alkali bypass exhaust, the limit is calculated using Equation 2 of this section: (for Equation 2 refer to regulation)

Where: PMalt = Alternative PM emission limit for commingled sources. 0.002 = The PM exhaust concentration (gr/dscf) equivalent to 0.020 lb per ton clinker where clinker cooler and kiln exhaust gas are not combined. 1.65 = The conversion factor of ton feed per ton clinker. Qk = The exhaust flow of the kiln (dscf/ton feed). Qc = The exhaust flow of the clinker cooler (dscf/ton feed). Qab = The exhaust flow of the alkali bypass (dscf/ton feed). Qcm = The exhaust flow of the coal mill (dscf/ton feed). 7000 = The conversion factor for gr per lb.

(c) Open clinker storage pile. - N/A [No open clinker storage pile was identified in the application] The owner or operator of an open clinker storage pile must prepare, and operate in accordance with, the fugitive dust emissions control measures, described in their operation and maintenance plan (see § 63.1347 of this subpart), that is appropriate for the site conditions as specified in paragraphs (c)(1) through (3) of this section.

The operation and maintenance plan must also describe the measures that will be used to minimize fugitive dust emissions from piles of clinker, such as accidental spillage, that are not part of open clinker storage piles.

- (1) The operation and maintenance plan must identify and describe the location of each current or future open clinker storage pile and the fugitive dust emissions control measures the owner or operator will use to minimize fugitive dust emissions from each open clinker storage pile.
- (2) For open clinker storage piles, the operations and maintenance plan must specify that one or more of the following control measures will be used to minimize to the greatest extent practicable fugitive dust from open clinker storage piles: Locating the source inside a partial enclosure, installing and operating a water spray or fogging system, applying appropriate chemical dust suppression agents, use of a wind barrier, compaction, use of tarpaulin or other equally effective cover or use of a vegetative cover. You must select, for inclusion in the operations and maintenance plan, the fugitive dust control measure or measures listed in this paragraph that are most appropriate for site conditions. The plan must also explain how the measure or measures selected are applicable and appropriate for site conditions. In addition, the plan



37-00013G



SECTION E. Source Group Plan Approval Restrictions.

must be revised as needed to reflect any changing conditions at the source.

(3) Temporary piles of clinker that result from accidental spillage or clinker storage cleaning operations must be cleaned up within 3 days.

[78 FR 10037, Feb. 12, 2013, as amended at 80 FR 44779, July 27, 2015; 83 FR 35132, July 25, 2018]

[Compliance with this NESHAP opacity limitation ensures compliance with the 25 Pa. Code 123.41 opacity limitation.]

020 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1345]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Emissions limits for affected sources other than kilns; in-line kiln/raw mills; clinker coolers; new and reconstructed raw

[See Group G04 for affected source list]

The owner or operator of each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; bulk loading or unloading system; raw and finish mills; and each existing raw material dryer, at a facility which is a major source subject to the provisions of this subpart must not cause to be discharged any gases from these affected sources which exhibit opacity in excess of 10 percent.

[78 FR 10039, Feb. 12, 2013]

[Compliance with this NESHAP opacity limitation ensures compliance with the 25 Pa. Code 123.41 opacity limitation.]

Fuel Restriction(s).

021 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Fuels authorized for the pyroprocessing system at this facility include:

Coal (primary fuel), natural gas, biomass, No. 2 fuel oil, spent activated carbon, petroleum coke, non-hazardous engineered fuels, and Class A dried sewage sludge as the alternates for fuel mixes.

Sulfur content of the pipeline natural gas combusted at this facility shall not exceed 0.2 grains per 100 dscf.

II. TESTING REQUIREMENTS.

022 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Compliance with the ammonia (NH3) emissions limit will be demonstrated through initial performance testing after the selective non catalytic reduction (SNCR) system is optimized.

Compliance Method/Averaging Period:

Initial: U.S. EPA Conditional Test Method CTM-027.

Continuous: 3-hour block.

DEP Auth ID: 1320403

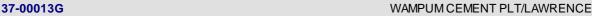
023 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Compliance with the sulfuric acid (H2SO4) emissions limit will be demonstrated through initial performance testing.

Compliance Method/Averaging Period:

Initial: U.S. EPA Reference Method 8.



024 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Compliance with the volatile organic compound (VOC) emissions limit will be demonstrated through initial performance testing.

Compliance Method/Averaging Period:

Initial: U.S. EPA Reference Method 18 and 25A.

Continuous: 3-hour block based on initial test and VOC to CO correlation.

(Requird records of clinker production sufficient to determine compliance with the VOC LAER emission limit.)

[25 Pa. Code §127.12b]

Plan approval terms and conditions.

Compliance with the greenhouse gas (CO2e) emissions limit will be demonstrated through initial performance testing for CO2.

Compliance Method/Averaging Period:

Initial: U.S. EPA Reference Method 3A.

Continuous: CO2e CEMS 12-month rolling.

*Alternative compliance methods may be approved in writing by the Department.

026 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Condensable Particulate Matter (PM(cond)) emissions shall be determined by EPA Methods 201/201A or equivalent and Method 202 or other equivalent method approved by the Department.

Compliance with the PM(cond) emission limit shall be demonstrated through initial performance testing.

For each PM(cond) test, conduct at least three separate runs each while the mill is on and the mill is off under the conditions that exist when the source is operating at a level that is reasonably expected to occur or at maximum capacity.

027 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

CO emissions shall be determined with the mill operating and when the mill is off as follows:

Compliance Method/Averaging Period:

Initial: U.S. EPA Reference Method 10;

Continuous: CEMS; 1-hour block; 40 CFR 60 Appendix B Performance Specification 4, 4A, or 4B.

[25 Pa. Code §127.12b]

Plan approval terms and conditions.

Certification Testing Requirements:

• Initial Application (Phase I)

A Proposal containing information as listed in the Phase I section of the Department's Continuous Source Monitoring Manual for each CEMS must be submitted at least 180 days prior to the initial startup date of the pyroprocessing system.

Performance Testing (Phase II)

Testing as listed in the Phase II section of the Department's Continuous Source Monitoring Manual must be completed for the CEMS no later than 180 days after initial startup date of the pyroprocessing system and no later than 60 days after the pyroprocessing system achieves normal process capacity.

• Final Approval (Phase III)

The final report of testing as listed in the Phase III section of the Department's Continuous Source Monitoring Manual must be submitted no later than no later than 60 days after completion of testing. An operating permit will not be issued until each CEMS has received Phase III approval, in writing from the Department. Until Phase III is granted by the Department, operation shall be covered solely by condition of a plan approval.

Each Phase I, Phase II, and Phase III submittal must be provided to the Department through CEMDPS*Online.

DEP Auth ID: 1320403 DEP PF ID: 246188 PROPOSED 05/04/2022 08:43 AM Page 100



- The owner or operator of the source shall not be issued an operating permit until the CEMS has received Phase III approval, in writing from the Department, when installation of a CEMS is made a condition of the plan approval. Until Phase III Department approval is obtained, operation shall be covered solely under condition of a plan approval.
- Extension of any Phase deadline may be granted only with appropriate justification and written Department approval.
- * Compliance with any subsequently issued revisions to the Continuous Source Monitoring Manual will constitute compliance with the regulations.

[NOTE: For sources required to make monitoring data available via telemetry, conditional acceptance of the CEMS data telemetry system and of the results of all Phase II testing, with the exception of relative accuracy, must be obtained prior to initial operation (for this approval the Department will review submitted results only the full test report is to be submitted upon completion of relative accuracy testing).]

029 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee of an affected source using a continuous opacity monitoring system (COMS) to determine opacity compliance during any performance test required under § 63.7 and described in § 63.6(d)(6) shall report the results of the continuous opacity monitoring system performance evaluation conducted under § 63.8(e).

030 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.64] Subpart F- Standards of Performance for Portland Cement Plants

Test methods and procedures.

- (a) In conducting the performance tests and relative accuracy tests required in § 60.8, you must use reference methods and procedures and the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b).
- (b)(1)You must demonstrate compliance with the PM standards in \S 60.62 using EPA method 5 or method 5I.
- (2) Use Method 9 and the procedures in § 60.11 to determine opacity.
- (3) Any sources other than kilns (including associated alkali bypass and clinker cooler) that are subject to the 10 percent opacity limit must follow the appropriate monitoring procedures in § 63.1350(f), (m)(1)through (4), (10) and (11), (o), and (p) of this chapter. [See Group G04 for these sources]
- (c) Calculate and record the rolling 30 kiln operating day average emission rate daily of NOX and SO2 according to the procedures in paragraph (c)(1) of this section.
- (1) Calculate the rolling 30 kiln operating day average emissions according to equation 6: [For Equation 6 refer to regulation]

Where: E30D = 30 kiln operating day average emission rate of NOX or SO2, lb/ton of clinker. Ci = Concentration of NOX or SO2 for hour i, ppm. Qi = Volumetric flow rate of effluent gas for hour i, where Ci and Qi are on the same basis (either wet or dry), scf/hr. P = 30 days of clinker production during the same time period as the NOX or SO2 emissions measured, tons. k = Conversion factor, 1.194 × 10-7 for NOX and 1.660 × 10-7 for SO2, lb/scf/ppm. n = Number of kiln operating hours over 30 kiln operating days.

(2) [Reserved]

DEP Auth ID: 1320403

(d)(1) Within 60 days after the date of completing each performance test (see § 60.8) as required by this subpart you must submit the results of the performance tests conducted to demonstrate compliance under this subpart to the EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (http://www.epa.gov/cdx). Performance test data must be submitted in the file format generated through use of the EPA's Electronic Reporting Tool (ERT) (see http://www.epa.gov/ttn/chief/ert/index.html). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk, flash drive or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02,





4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to the EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, you must also submit these reports, including the CBI, to the delegated authority in the format specified by the delegated authority. For any performance test conducted using test methods that are not listed on the ERT Web site, you must submit the results of the performance test to the Administrator at the appropriate address listed in § 63.13.

- (2) Within 60 days after the date of completing each CEMS performance evaluation test as defined in § 63.2, you must submit relative accuracy test audit (RATA) data to the EPA's CDX by using CEDRI in accordance with paragraph (d)(1) of this section. Only RATA pollutants that can be documented with the ERT (as listed on the ERT Web site) are subject to this requirement. For any performance evaluations with no corresponding RATA pollutants listed on the ERT Web site, you must submit the results of the performance evaluation to the Administrator at the appropriate address listed in § 63.13.
- (3) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g. beta attenuation), span of the instruments primary analytical range, milliamp value equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp signals corresponding to each PM compliance test run.
- (4) All reports required by this subpart not subject to the requirements in paragraphs (d)(1) and (2) of this section must be sent to the Administrator at the appropriate address listed in § 63.13. The Administrator or the delegated authority may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). The Administrator retains the right to require submittal of reports subject to paragraph (d)(1) and (2) of this section in paper format.

[78 FR 10035, Feb. 12, 2013, as amended at 80 FR 44778, July 27, 2015]

031 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1348]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Compliance requirements.

(a) Initial Performance Test Requirements. For an affected source subject to this subpart, you must demonstrate compliance with the emissions standards and operating limits by using the test methods and procedures in §§ 63.1349 and 63.7. Any affected source that was unable to demonstrate compliance before the compliance date due to being idled, or that had demonstrated compliance but was idled during the normal window for the next compliance test, must demonstrate compliance within 180 days after coming out of the idle period. Any cement kiln that has been subject to the requirements of subpart CCCC or subpart DDDD of 40 CFR Part 60, and is now electing to cease burning nonhazardous solid waste and become subject to this subpart, must meet all the initial compliance testing requirements each time it becomes subject to this subpart, even if it was previously subject to this subpart.

Note to paragraph (a):

DEP Auth ID: 1320403

The first day of the 30 operating day performance test is 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 (e.g., PS 2, 12A, or 12B) acceptance criteria. The performance test period is complete at the end of the 30th consecutive operating day. See § 63.1341 for definition of operating day and § 63.1348(b)(1) for the CEMS operating requirements. The source has the option of performing the compliance test earlier then the compliance date if desired.

- (1) PM Compliance. If you are subject to limitations on PM emissions under § 63.1343(b), you must demonstrate compliance with the PM emissions standards by using the test methods and procedures in § 63.1349(b)(1).
- (2) Opacity Compliance. If you are subject to the limitations on opacity under § 63.1345, you must demonstrate compliance with the opacity emissions standards by using the performance test methods and procedures in § 63.1349(b)(2). Use the maximum 6-minute average opacity exhibited during the performance test period to determine whether the affected source is in compliance with the standard.
- (3) D/F compliance. (i) If you are subject to limitations on D/F emissions under § 63.1343(b), you must demonstrate initial compliance with the D/F emissions standards by using the performance test methods and procedures in § 63.1349(b)(3).





The owner or operator of a kiln with an in-line raw mill must demonstrate initial compliance by conducting separate performance tests while the raw mill is operating and the raw mill is not operating. Determine the D/F TEQ concentration for each run and calculate the arithmetic average of the TEQ concentrations measured for the three runs to determine continuous compliance.

- (ii) If you are subject to a D/F emissions limitation under § 63.1343(b), you must demonstrate compliance with the temperature operating limits specified in § 63.1346 by using the performance test methods and procedures in § 63.1349(b)(3)(ii) through (b)(3)(iv). Use the arithmetic average of the temperatures measured during the three runs to determine the applicable temperature limit.
- (iii) If activated carbon injection is used and you are subject to a D/F emissions limitation under § 63.1343(b), you must demonstrate compliance with the activated carbon injection rate operating limits specified in § 63.1346 by using the performance test methods and procedures in § 63.1349(b)(3)(v).
- (iv) If activated carbon injection is used, you must also develop a carrier gas parameter (either the carrier gas flow rate or the carrier gas pressure drop) during the initial performance test and updated during any subsequent performance test conducted under § 63.1349(b)(3) that meets the requirements of § 63.1349(b)(3)(vi). Compliance is demonstrated if the system is maintained within ±5 percent accuracy during the performance test determined in accordance with the procedures and criteria submitted for review in your monitoring plan required in § 63.1350(p).
- (4)(i) THC Compliance. If you are subject to limitations on THC emissions under § 63.1343(b), you must demonstrate compliance with the THC emissions standards by using the performance test methods and procedures in § 63.1349(b)(4)(i). You must use the average THC concentration obtained during the first 30 kiln operating days after the compliance date of this rule to determine initial compliance.
- (ii) Total Organic HAP Emissions Tests. If you elect to demonstrate compliance with the total organic HAP emissions limit under § 63.1343(b) in lieu of the THC emissions limit, you must demonstrate compliance with the total organic HAP emissions standards by using the performance test methods and procedures in § 63.1349(b)(7).
- (iii) If you are demonstrating initial compliance, you must conduct the separate performance tests as specified in § 63.1349(b)(7) while the raw mill of the inline kiln/raw mill is operating and while the raw mill of the inline kiln/raw mill is not operating.
- (iv) The time weighted average total organic HAP concentration measured during the separate initial performance test specified by § 63.1349(b)(7) must be used to determine initial compliance.
- (v) The time weighted average THC concentration measured during the initial performance test specified by § 63.1349(b)(4) must be used to determine the site-specific THC limit. Using the fraction of time the inline kiln/raw mill is on and the fraction of time that the inline kiln/raw mill is off, calculate this limit as a time weighted average of the THC levels measured during raw mill on and raw mill off testing using one of the two approaches in § 63.1349(b)(7)(vii) or (viii) depending on the level of organic HAP measured during the compliance test.
- (5) Mercury Compliance. If you are subject to limitations on mercury emissions in § 63.1343(b), you must demonstrate compliance with the mercury standards by using the performance test methods and procedures in § 63.1349(b)(5). You must demonstrate compliance by operating a mercury CEMS or a sorbent trap based CEMS. Compliance with the mercury emissions standard must be determined based on the first 30 operating days you operate a mercury CEMS or sorbent trap monitoring system after the compliance date of this rule.
- (i) In calculating a 30 operating day emissions value using an integrating sorbent trap CEMS, assign the average Hg emissions concentration determined for an integrating period (e.g., 7 day sorbent trap monitoring system sample) to each relevant hour of the kiln operating days spanned by each integrated sample. Calculate the 30 kiln operating day emissions rate value using the assigned hourly Hg emissions concentrations and the respective flow and production rate values collected during the 30 kiln operating day performance test period. Depending on the duration of each integrated sampling period, you may not be able to calculate the 30 kiln operating day emissions value until several days after the end of the 30 kiln operating day performance test period.
- (ii) For example, a sorbent trap monitoring system producing an integrated 7-day sample will provide Hg concentration data for each hour of the first 28 kiln operating days (i.e., four values spanning 7 days each) of a 30 operating day period. The Hg concentration values for the hours of the last 2 days of the 30 operating day period will not be available for calculating the emissions for the performance test period until at least five days after the end of the subject period.
- (6) HCl Compliance. If you are subject to limitations on HCl emissions under § 63.1343(b), you must demonstrate initial compliance with the HCl standards by using the performance test methods and procedures in § 63.1349(b)(6).
- (i) For an affected source that is equipped with a wet scrubber, tray tower or dry scrubber, you may demonstrate initial compliance by conducting a performance test as specified in § 63.1349(b)(6)(i). You must determine the HCl concentration for each run and calculate the arithmetic average of the concentrations measured for the three runs to determine





compliance. You must also establish appropriate site-specific operational parameter limits.

- (ii) For an affected source that is not equipped with a wet scrubber, tray tower or dry scrubber, you must demonstrate initial compliance by operating a CEMS as specified in § 63.1349(b)(6)(ii). You must use the average of the hourly HCl values obtained during the first 30 kiln operating days that occur after the compliance date of this rule to determine initial compliance.
- (7) Commingled Exhaust Requirements. If the coal mill exhaust is commingled with kiln exhaust in a single stack, you may demonstrate compliance with the kiln emission limits by either:
- (i) Performing required emissions monitoring and testing on the commingled coal mill and kiln exhaust, or
- (ii) Perform required emission monitoring and testing of the kiln exhaust prior to the reintroduction of the coal mill exhaust, and also testing the kiln exhaust diverted to the coal mill. All emissions must be added together for all emission points, and must not exceed the limit per each pollutant as listed in § 63.1343(b).
- (b) Continuous Monitoring Requirements. You must demonstrate compliance with the emissions standards and operating limits by using the performance test methods and procedures in §§ 63.1350 and 63.8 for each affected source.
- (1) General Requirements. (i) You must monitor and collect data according to § 63.1350 and the site-specific monitoring plan required by § 63.1350(p).
- (ii) Except for periods of startup and shutdown, monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), you must operate the monitoring system and collect data at all required intervals at all times the affected source is operating.
- (iii) You may not use data recorded during monitoring system startup, shutdown or malfunctions or repairs associated with monitoring system malfunctions in calculations used to report emissions or operating levels. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.
- (iv) Clinker Production. If you are subject to limitations on mercury emissions (lb/MM tons of clinker) under § 63.1343(b), you must determine the hourly production rate of clinker according to the requirements of § 63.1350(d).
- (2) PM Compliance. If you are subject to limitations on PM emissions under § 63.1343(b), you must use the monitoring methods and procedures in § 63.1350(b) and (d).
- (3) Opacity Compliance. If you are subject to the limitations on opacity under § 63.1345, you must demonstrate compliance using the monitoring methods and procedures in § 63.1350(f) based on the maximum 6-minute average opacity exhibited during the performance test period. You must initiate corrective actions within one hour of detecting visible emissions above the applicable limit.
- (i) COMS. If you install a COMS in lieu of conducting the daily visible emissions testing, you must demonstrate compliance using a COMS such that it is installed, operated, and maintained in accordance with the requirements of § 63.1350(f)(4)(i). (ii) Bag Leak Detection System (BLDS). If you install a BLDS on a raw mill or finish mill in lieu of conducting the daily visible emissions testing, you must demonstrate compliance using a BLDS that is installed, operated, and maintained in
- accordance with the requirements of § 63.1350(f)(4)(ii).

DEP PF ID: 246188

DEP Auth ID: 1320403

- (4) D/F Compliance. If you are subject to a D/F emissions limitation under § 63.1343(b), you must demonstrate compliance using a continuous monitoring system (CMS) that is installed, operated and maintained to record the temperature of specified gas streams in accordance with the requirements of § 63.1350(g).
- (5) Activated Carbon Injection Compliance. (i) If you use activated carbon injection to comply with the D/F emissions limitation under § 63.1343(b), you must demonstrate compliance using a CMS that is installed, operated, and maintained to record the rate of activated carbon injection in accordance with the requirements § 63.1350(h)(1).
- (ii) If you use activated carbon injection to comply with the D/F emissions limitation under § 63.1343(b), you must demonstrate compliance using a CMS that is installed, operated and maintained to record the activated carbon injection system gas parameter in accordance with the requirements of § 63.1350(h)(2).
- (6) THC Compliance. (i) If you are subject to limitations on THC emissions under § 63.1343(b), you must demonstrate compliance using the monitoring methods and procedures in § 63.1350(i) and (j).

Page 104





- (ii) THC must be measured either upstream of the coal mill or in the coal mill stack.
- (7) Mercury Compliance. (i) If you are subject to limitations on mercury emissions in § 63.1343(b), you must demonstrate compliance using the monitoring methods and procedures in § 63.1350(k). If you use an integrated sorbent trap monitoring system to determine ongoing compliance, use the procedures described in § 63.1348(a)(5) to assign hourly mercury concentration values and to calculate rolling 30 operating day emissions rates. Since you assign the mercury concentration measured with the sorbent trap to each relevant hour respectively for each operating day of the integrated period, you may schedule the sorbent trap change periods to any time of the day (i.e., the sorbent trap replacement need not be scheduled at 12:00 midnight nor must the sorbent trap replacements occur only at integral 24-hour intervals).
- (ii) Mercury must be measured either upstream of the coal mill or in the coal mill stack.
- (8) HCI Compliance. If you are subject to limitations on HCI emissions under § 63.1343(b), you must demonstrate compliance using the performance test methods and procedures in § 63.1349(b)(6).
- (i) For an affected source that is not equipped with a wet scrubber, tray tower or a dry sorbent injection system, you must demonstrate compliance using the monitoring methods and procedures in § 63.1350(l)(1).
- (ii) For an affected source that is equipped with a wet scrubber, tray tower or a dry sorbent injection system, you may demonstrate compliance using the monitoring methods and procedures in § 63.1350(I)(2).
- (iii) HCl may be measured either upstream of the coal mill or in the coal mill stack.
- (iv) As an alternative to paragraph (b)(8)(ii) of this section, you may use an SO2 CEMS to establish an SO2 operating level during your initial and repeat HCl performance tests and monitor the SO2 level using the procedures in § 63.1350(I)(3).
- (9) Startup and Shutdown Compliance. All dry sorbent and activated carbon systems that control hazardous air pollutants must be turned on and operating at the time the gas stream at the inlet to the baghouse or ESP reaches 300 degrees Fahrenheit (five minute average) during startup. Temperature of the gas stream is to be measured at the inlet of the baghouse or ESP every minute. Such injection systems can be turned off during shutdown. Particulate control and all remaining devices that control hazardous air pollutants should be operational during startup and shutdown.
- (c) Changes in operations. (1) If you plan to undertake a change in operations that may adversely affect compliance with an applicable standard, operating limit, or parametric monitoring value under this subpart, the source must conduct a performance test as specified in § 63.1349(b).
- (2) In preparation for and while conducting a performance test required in § 63.1349(b), you may operate under the planned operational change conditions for a period not to exceed 360 hours, provided that the conditions in (c)(2)(i) through (c)(2)(iv) of this section are met. You must submit temperature and other monitoring data that are recorded during the pretest operations.
- (i) You must provide the Administrator written notice at least 60 days prior to undertaking an operational change that may adversely affect compliance with an applicable standard under this subpart for any source, or as soon as practicable where 60 days advance notice is not feasible. Notice provided under this paragraph must include a description of the planned change, the emissions standards that may be affected by the change, and a schedule for completion of the performance test required under paragraph (c)(1) of this section, including when the planned operational change period would begin.
- (ii) The performance test results must be documented in a test report according to § 63.1349(a).
- (iii) A test plan must be made available to the Administrator prior to performance testing, if requested.
- (iv) The performance test must be completed within 360 hours after the planned operational change period begins.
- (d) General duty to minimize emissions. At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[75 FR 55055, Sept. 9, 2010, as amended at 78 FR 10040, Feb. 12, 2013; 80 FR 44781, July 27, 2015; 83 FR 35132, July 25, 2018]

032 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1349]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Performance testing requirements.





- (a) You must document performance test results in complete test reports that contain the information required by paragraphs (a)(1) through (10) of this section, as well as all other relevant information. As described in § 63.7(c)(2)(i), you must make available to the Administrator prior to testing, if requested, the site-specific test plan to be followed during performance testing. For purposes of determining exhaust gas flow rate to the atmosphere from an alkali bypass stack or a coal mill stack, you must either install, operate, calibrate and maintain an instrument for continuously measuring and recording the exhaust gas flow rate according to the requirements in paragraphs § 63.1350(n)(1) through (10) of this subpart or use the maximum design exhaust gas flow rate. For purposes of determining the combined emissions from kilns equipped with an alkali bypass or that exhaust kiln gases to a coal mill that exhausts through a separate stack, instead of installing a CEMS on the alkali bypass stack or coal mill stack, you may use the results of the initial and subsequent performance test to demonstrate compliance with the relevant emissions limit.
- (1) A brief description of the process and the air pollution control system;
- (2) Sampling location description(s);
- (3) A description of sampling and analytical procedures and any modifications to standard procedures;
- (4) Test results;
- (5) Quality assurance procedures and results;
- (6) Records of operating conditions during the performance test, preparation of standards, and calibration procedures;
- (7) Raw data sheets for field sampling and field and laboratory analyses;
- (8) Documentation of calculations;
- (9) All data recorded and used to establish parameters for monitoring; and
- (10) Any other information required by the performance test method.

(b)

- (1) PM emissions tests. The owner or operator of a kiln and clinker cooler subject to limitations on PM emissions shall demonstrate initial compliance by conducting a performance test using Method 5 or Method 5I at appendix A-3 to part 60 of this chapter. You must also monitor continuous performance through use of a PM continuous parametric monitoring system (PM CPMS).
- (i) For your PM CPMS, you will establish a site-specific operating limit. If your PM performance test demonstrates your PM emission levels to be below 75 percent of your emission limit you will use the average PM CPMS value recorded during the PM compliance test, the milliamp or digital equivalent of zero output from your PM CPMS, and the average PM result of your compliance test to establish your operating limit. If your PM compliance test demonstrates your PM emission levels to be at or above 75 percent of your emission limit you will use the average PM CPMS value recorded during the PM compliance test to establish your operating limit. You will use the PM CPMS to demonstrate continuous compliance with your operating limit. You must repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.
- (A) Your PM CPMS must provide a 4-20 milliamp or digital signal output and the establishment of its relationship to manual reference method measurements must be determined in units of milliamps or the monitors digital equivalent.
- (B) Your PM CPMS operating range must be capable of reading PM concentrations from zero to a level equivalent to three times your allowable emission limit. If your PM CPMS is an auto-ranging instrument capable of multiple scales, the primary range of the instrument must be capable of reading PM concentration from zero to a level equivalent to three times your allowable emission limit.
- (C) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record and average all milliamp or digital output values from the PM CPMS for the periods corresponding to the compliance test runs (e.g., average all your PM CPMS output values for three corresponding Method 5I test runs).
- (ii) Determine your operating limit as specified in paragraphs (b)(1)(iii) through (iv) of this section. If your PM performance test demonstrates your PM emission levels to be below 75 percent of your emission limit you will use the average PM CPMS value recorded during the PM compliance test, the milliamp or digital equivalent of zero output from your PM CPMS, and the average PM result of your compliance test to establish your operating limit. If your PM compliance test demonstrates your PM emission levels to be at or above 75 percent of your emission limit you will use the average PM CPMS value recorded during the PM compliance test to establish your operating limit. You must verify an existing or establish a new operating limit after each repeated performance test. You must repeat the performance test at least annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.
- (iii) If the average of your three Method 5 or 5I compliance test runs is below 75 percent of your PM emission limit, you must





calculate an operating limit by establishing a relationship of PM CPMS signal to PM concentration using the PM CPMS instrument zero, the average PM CPMS values corresponding to the three compliance test runs, and the average PM concentration from the Method 5 or 5l compliance test with the procedures in (b)(1)(iii)(A) through (D) of this section.

- (A) Determine your PM CPMS instrument zero output with one of the following procedures:
- (1) Zero point data for in-situ instruments should be obtained by removing the instrument from the stack and monitoring ambient air on a test bench.
- (2) Zero point data for extractive instruments should be obtained by removing the extractive probe from the stack and drawing in clean ambient air.
- (3) The zero point may also be established by performing manual reference method measurements when the flue gas is free of PM emissions or contains very low PM concentrations (e.g., when your process is not operating, but the fans are operating or your source is combusting only natural gas) and plotting these with the compliance data to find the zero intercept.
- (4) If none of the steps in paragraphs (b)(1)(iii)(A)(1) through (3) of this section are possible, you must use a zero output value provided by the manufacturer.
- (B) Determine your PM CPMS instrument average in milliamps or digital equivalent, and the average of your corresponding three PM compliance test runs, using equation 3. Where:
- X1 = The PM CPMS data points for the three runs constituting the performance test.
- Y1 = The PM concentration value for the three runs constituting the performance test.
- n =The number of data points.
- (C) With your instrument zero expressed in milliamps or a digital value, your three run average PM CPMS milliamp or digital signal value, and your three run PM compliance test average, determine a relationship of lb/ton-clinker per milliamp or digital signal value with Equation 4.

Where:

- R = The relative lb/ton-clinker per milliamp or digital equivalent for your PM CPMS.
- Y1 = The three run average lb/ton-clinker PM concentration.
- X1 = The three run average milliamp or digital equivalent output from your PM CPMS.
- z = The milliamp or digital equivalent of your instrument zero determined from (b)(1)(iii)(A).
- (D) Determine your source specific 30-day rolling average operating limit using the lb/ton-clinker per milliamp or digital signal value from Equation 4 in Equation 5, below. This sets your operating limit at the PM CPMS output value corresponding to 75 percent of your emission limit.

Where:

DEP Auth ID: 1320403

- OI = The operating limit for your PM CPMS on a 30-day rolling average, in milliamps or the digital equivalent.
- L = Your source emission limit expressed in lb/ton clinker.

DEP PF ID: 246188

- z =Your instrument zero in milliamps, or digital equivalent, determined from (b)(1)(iii)(A).
- R = The relative lb/ton-clinker per milliamp, or digital equivalent, for your PM CPMS, from Equation 4.
- (iv) If the average of your three PM compliance test runs is at or above 75 percent of your PM emission limit you must determine your operating limit by averaging the PM CPMS milliamp or digital equivalent output corresponding to your three PM performance test runs that demonstrate compliance with the emission limit using Equation 6.

Page 107



Where:

X1 =The PM CPMS data points for all runs i.

n =The number of data points.

37-00013G

Oh = Your site specific operating limit, in milliamps or the digital equivalent.

(v) To determine continuous operating compliance, you must record the PM CPMS output data for all periods when the process is operating, and use all the PM CPMS data for calculations when the source is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps or the digital equivalent) on a 30 operating day rolling average basis, updated at the end of each new kiln operating day. Use Equation 7 to determine the 30 kiln operating day average.

Where:

Hpvi = The hourly parameter value for hour i.

- n = The number of valid hourly parameter values collected over 30 kiln operating days.
- (vi) For each performance test, conduct at least three separate test runs under the conditions that exist when the affected source is operating at the level reasonably expected to occur. Conduct each test run to collect a minimum sample volume of 2 dscm for determining compliance with a new source limit and 1 dscm for determining compliance with an existing source limit. Calculate the time weighted average of the results from three consecutive runs, including applicable sources as required by paragraph (b)(1)(viii) of this section, to determine compliance. You need not determine the particulate matter collected in the impingers "back half" of the Method 5 or Method 5I particulate sampling train to demonstrate compliance with the PM standards of this subpart. This shall not preclude the permitting authority from requiring a determination of the "back half" for other purposes. For kilns with inline raw mills, testing must be conducted while the raw mill is on and while the raw mill is off. If the exhaust streams of a kiln with an inline raw mill and a clinker cooler are comingled, then the comingled exhaust stream must be tested with the raw mill on and the raw mill off.
- (vii) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g. beta attenuation), span of the instruments primary analytical range, milliamp value or digital equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp or digital equivalent signals corresponding to each PM compliance test run.
- (viii) When there is an alkali bypass and/or an inline coal mill with a separate stack associated with a kiln, the main exhaust and alkali bypass and/or inline coal mill must be tested simultaneously and the combined emission rate of PM from the kiln and alkali bypass and/or inline coal mill must be computed for each run using Equation 8 of this section.

Where:

DEP Auth ID: 1320403

ECm = Combined hourly emission rate of PM from the kiln and bypass stack and/or inline coal mill, lb/ton of kiln clinker production.

EK = Hourly emissions of PM emissions from the kiln, lb.

EB = Hourly PM emissions from the alkali bypass stack, lb.

EC = Hourly PM emissions from the inline coal mill stack, lb.

P = Hourly clinker production, tons.

(ix) The owner or operator of a kiln with an in-line raw mill and subject to limitations on PM emissions shall demonstrate initial compliance by conducting separate performance tests while the raw mill is under normal operating conditions and



while the raw mill is not operating, and calculate the time weighted average emissions. The operating limit will then be determined using 63.1349(b)(1)(i) of this section.

- (2) Opacity tests. If you are subject to limitations on opacity under this subpart, you must conduct opacity tests in accordance with Method 9 of appendix A-4 to part 60 of this chapter. The duration of the Method 9 performance test must be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of paragraphs (b)(2)(i) and (ii) of this section apply. For batch processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating.
- (i) There are no individual readings greater than 10 percent opacity;
- (ii) There are no more than three readings of 10 percent for the first 1-hour period.
- (3) D/F Emissions Tests. If you are subject to limitations on D/F emissions under this subpart, you must conduct a performance test using Method 23 of appendix A-7 to part 60 of this chapter. If your kiln or in-line kiln/raw mill is equipped with an alkali bypass, you must conduct simultaneous performance tests of the kiln or in-line kiln/raw mill exhaust and the alkali bypass. You may conduct a performance test of the alkali bypass exhaust when the raw mill of the in-line kiln/raw mill is operating or not operating.
- (i) Each performance test must consist of three separate runs conducted under representative conditions. The duration of each run must be at least 3 hours, and the sample volume for each run must be at least 2.5 dscm (90 dscf).
- (ii) The temperature at the inlet to the kiln or in-line kiln/raw mill PMCD, and, where applicable, the temperature at the inlet to the alkali bypass PMCD must be continuously recorded during the period of the Method 23 test, and the continuous temperature record(s) must be included in the performance test report.
- (iii) Average temperatures must be calculated for each run of the performance test.
- (iv) The run average temperature must be calculated for each run, and the average of the run average temperatures must be determined and included in the performance test report and will determine the applicable temperature limit in accordance with § 63.1346(b).

(v)

- (A) If sorbent injection is used for D/F control, you must record the rate of sorbent injection to the kiln exhaust, and where applicable, the rate of sorbent injection to the alkali bypass exhaust, continuously during the period of the Method 23 test in accordance with the conditions in § 63.1350(m)(9), and include the continuous injection rate record(s) in the performance test report. Determine the sorbent injection rate parameters in accordance with paragraph (b)(3)(vi) of this section.
- (B) Include the brand and type of sorbent used during the performance test in the performance test report.
- (C) Maintain a continuous record of either the carrier gas flow rate or the carrier gas pressure drop for the duration of the performance test. If the carrier gas flow rate is used, determine, record, and maintain a record of the accuracy of the carrier gas flow rate monitoring system according to the procedures in appendix A to part 75 of this chapter. If the carrier gas pressure drop is used, determine, record, and maintain a record of the accuracy of the carrier gas pressure drop monitoring system according to the procedures in § 63.1350(m)(6).
- (vi) Calculate the run average sorbent injection rate for each run and determine and include the average of the run average injection rates in the performance test report and determine the applicable injection rate limit in accordance with § 63.1346(c)(1).
- (4) THC emissions test.

DEP Auth ID: 1320403

(i) If you are subject to limitations on THC emissions, you must operate a CEMS in accordance with the requirements in § 63.1350(i). For the purposes of conducting the accuracy and quality assurance evaluations for CEMS, the THC span value (as propane) is 50 to 60 ppmw and the reference method (RM) is Method 25A of appendix A to part 60 of this chapter.



- (ii) Use the THC CEMS to conduct the initial compliance test for the first 30 kiln operating days of kiln operation after the compliance date of the rule. See § 63.1348(a).
- (iii) If kiln gases are diverted through an alkali bypass or to a coal mill and exhausted through a separate stack, you must calculate a kiln-specific THC limit using Equation 9:

Where:

Cks = Kiln stack concentration (ppmvd).

Qab = Alkali bypass flow rate (volume/hr).

Cab = Alkali bypass concentration (ppmvd).

Qcm = Coal mill flow rate (volume/hr).

Ccm = Coal mill concentration (ppmvd).

Qks = Kiln stack flow rate (volume/hr).

- (iv) THC must be measured either upstream of the coal mill or the coal mill stack.
- (v) Instead of conducting the performance test specified in paragraph (b)(4) of this section, you may conduct a performance test to determine emissions of total organic HAP by following the procedures in paragraph (b)(7) of this section.
- (5) Mercury Emissions Tests. If you are subject to limitations on mercury emissions, you must operate a mercury CEMS or a sorbent trap monitoring system in accordance with the requirements of § 63.1350(k). The initial compliance test must be based on the first 30 kiln operating days in which the affected source operates using a mercury CEMS or a sorbent trap monitoring system after the compliance date of the rule. See § 63.1348(a).
- (i) If you are using a mercury CEMS or a sorbent trap monitoring system, you must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the exhaust gas flow rate to the atmosphere according to the requirements in § 63.1350(k)(5).
- (ii) Calculate the emission rate using Equation 10 of this section:

Where:

E30D = 30-day rolling emission rate of mercury, lb/MM tons clinker.

Ci = Concentration of mercury for operating hour i, μ g/scm.

Qi = Volumetric flow rate of effluent gas for operating hour i, where Ci and Qi are on the same basis (either wet or dry), scm/hr.

 $k = Conversion factor, 1 lb/454,000,000 \mu g.$

- n = Number of kiln operating hours in the previous 30 kiln operating day period where both C and Qi qualified data are available.
- P = Total runs from the previous 30 days of clinker production during the same time period as the mercury emissions measured, million tons.
- (6) HCl emissions tests. For a source subject to limitations on HCl emissions you must conduct performance testing by one of the following methods:

(i)





- (A) If the source is equipped with a wet scrubber, tray tower or dry scrubber, you must conduct performance testing using Method 321 of appendix A to this part unless you have installed a CEMS that meets the requirements § 63.1350(I)(1). For kilns with inline raw mills, testing must be conducted for the raw mill on and raw mill off conditions.
- (B) You must establish site specific parameter limits by using the CPMS required in § 63.1350(I)(1). For a wet scrubber or tray tower, measure and record the pressure drop across the scrubber and/or liquid flow rate and pH in intervals of no more than 15 minutes during the HCl test. Compute and record the 24-hour average pressure drop, pH, and average scrubber water flow rate for each sampling run in which the applicable emissions limit is met. For a dry scrubber, measure and record the sorbent injection rate in intervals of no more than 15 minutes during the HCl test. Compute and record the 24-hour average sorbent injection rate and average sorbent injection rate for each sampling run in which the applicable emissions limit is met.

(ii)

- (A) If the source is not controlled by a wet scrubber, tray tower or dry sorbent injection system, you must operate a CEMS in accordance with the requirements of § 63.1350(I)(1). See § 63.1348(a).
- (B) The initial compliance test must be based on the 30 kiln operating days that occur after the compliance date of this rule in which the affected source operates using an HCI CEMS. Hourly HCI concentration data must be obtained according to § 63.1350(l).
- (iii) As an alternative to paragraph (b)(6)(i)(B) of this section, you may choose to monitor SO2 emissions using a CEMS in accordance with the requirements of § 63.1350(I)(3). You must establish an SO2 operating limit equal to the average recorded during the HCI stack test where the HCI stack test run result demonstrates compliance with the emission limit. This operating limit will apply only for demonstrating HCI compliance.
- (iv) If kiln gases are diverted through an alkali bypass or to a coal mill and exhausted through a separate stack, you must calculate a kiln-specific HCl limit using Equation 11:

Where:

DEP Auth ID: 1320403

Cks = Kiln stack concentration (ppmvd).

Qab = Alkali bypass flow rate (volume/hr).

Cab = Alkali bypass concentration (ppmvd).

Qcm = Coal mill flow rate (volume/hr).

Ccm = Coal mill concentration (ppmvd).

Qks = Kiln stack flow rate (volume/hr).

DEP PF ID: 246188

- (v) As an alternative to paragraph (b)(6)(ii) of this section, the owner or operator may demonstrate initial compliance by conducting a performance test using Method 321 of appendix A to this part. You must also monitor continuous performance through use of an HCI CPMS according to paragraphs (b)(6)(v)(A) through (H) of this section. For kilns with inline raw mills, compliance testing and monitoring HCl to establish the site specific operating limit must be conducted during both raw mill on and raw mill off conditions.
- (A) For your HCI CPMS, you must establish a 30 kiln operating day site-specific operating limit. If your HCl performance test demonstrates your HCl emission levels to be less than 75 percent of your emission limit (2.25 ppmvd @7% O2), you must use the time weighted average HCl CPMS indicated value recorded during the HCl compliance test (typically measured as ppmw HCl at stack O2 concentration, but a dry, oxygen corrected value would also suffice), your HCl instrument zero output value, and the time weighted average HCl result of your compliance test to establish your operating limit. If your HCl compliance test demonstrates your HCl emission levels to be at or above 75 percent of your emission limit (2.25 ppmvd @7% O2), you must use the time weighted average HCl CPMS indicated value recorded during the HCl compliance test as your operating limit. You must use the HCl CPMS indicated signal data to demonstrate continuous compliance with your

Page 111





operating limit.

- (1) Your HCI CPMS must provide a ppm HCI concentration output and the establishment of its relationship to manual reference method measurements must be determined in units of indicated ppm. The instrument signal may be in ppmww or ppmvd and the signal may be a measurement of HCI at in-stack concentration or a corrected oxygen concentration. Once the relationship between the indicated output of the HCI CPMS and the reference method test results is established, the HCI CPMS instrument measurement basis (ppmw or ppmvd, or oxygen correction basis) must not be altered. Likewise, any setting that impacts the HCI CPMS indicated HCI response must remain fixed after the site-specific operating limit is set.
- (2) Your HCI CPMS operating range must be capable of reading HCI concentrations from zero to a level equivalent to 125 percent of the highest expected value during mill off operation. If your HCI CPMS is an auto-ranging instrument capable of multiple scales, the primary range of the instrument must be capable of reading an indicated HCI concentration from zero to 10 ppm.
- (3) During the initial performance test of a kiln with an inline raw mill, or any such subsequent performance test that demonstrates compliance with the HCl limit, record and average the indicated ppm HCl output values from the HCl CPMS for each of the six periods corresponding to the compliance test runs (e.g., average each of your HCl CPMS output values for six corresponding Method 321 test runs). With the average values of the six test runs, calculate the average of the three mill on test runs and the average of the three mill off test runs. Calculate the time weighted result using the average of the three mill on tests and the average of the three mill off tests and the previous annual ratio of mill on/mill off operations. Kilns without an inline raw mill will conduct three compliance tests and calculate the average monitor output values corresponding to these three test runs and not use time weighted values to determine their site specific operating limit.
- (B) Determine your operating limit as specified in paragraphs (b)(6)(i) or (iii) of this section. If your HCl performance test demonstrates your HCl emission levels to be below 75 percent of your emission limit, kilns with inline raw mills will use the time weighted average indicated HCl ppm concentration CPMS value recorded during the HCl compliance test, the zero value output from your HCl CPMS, and the time weighted average HCl result of your compliance test to establish your operating limit. Kilns without inline raw mills will not use a time weighted average value to establish their operating limit. If your time weighted HCl compliance test demonstrates your HCl emission levels to be at or above 75 percent of your emission limit, you will use the time weighted HCl CPMS indicated ppm value recorded during the HCl compliance test to establish your operating limit. Kilns without inline raw mills will not use time weighted compliance test results to make this determination. You must verify an existing operating limit or establish a new operating limit for each kiln, after each repeated performance test.
- (C) If the average of your three Method 321 compliance test runs (for kilns without an inline raw mill) or the time weighted average of your six Method 321 compliance test runs (for an kiln with an inline raw mill) is below 75 percent of your HCI emission limit, you must calculate an operating limit by establishing a relationship of the average HCI CPMS indicated ppm to the Method 321 test average HCI concentration using the HCI CPMS instrument zero, the average HCI CPMS indicated values corresponding to the three (for kilns without inline raw mills) or time weighted HCI CPMS indicated values corresponding to the six (for kilns with inline raw mills) compliance test runs, and the average HCI concentration (for kilns without raw mills) or average time weighted HCI concentration (for kilns with inline raw mills) from the Method 321 compliance test with the procedures in paragraphs (b)(6)(v)(C)(1) through (5) of this section.
- (1) Determine your HCI CPMS instrument zero output with one of the following procedures:
- (i) Zero point data for in situ instruments should be obtained by removing the instrument from the stack and monitoring ambient air on a test bench.
- (ii) If neither of the steps in paragraphs (b)(6)(v)(C)(1)(i) through (ii) of this section are possible, you must use a zero output value provided by the manufacturer.
- (2) If your facility does not have an inline raw mill you will determine your HCI CPMS indicated average in HCl ppm, and the average of your corresponding three HCl compliance test runs, using equation 11a.

Where:



- Xi = The HCI CPMS data points for the three (or six) runs constituting the performance test;
- Yi = The HCl concentration value for the three (or six) runs constituting the performance test; and
- n =The number of data points.
- (3) You will determine your HCI CPMS indicated average in HCI ppm, and the average of your corresponding HCI compliance test runs, using equation 11b. If you have an inline raw mill, use this same equation to calculate a second three-test average for your mill off CPMS and compliance test data.

Where:

- Xi = The HCI CPMS data points for the three runs constituting the mill on OR mill off performance test;
- Yi = The HCl concentration value for the three runs constituting the mill on OR mill off performance test; and
- n =The number of data points.
- (4) With your instrument zero expressed in ppm, your average HCl CPMS ppm value, and your HCl compliance test average, determine a relationship of performance test HCI (as ppmvd @7% O2) concentration per HCI CPMS indicated ppm with Equation 11c.

Where:

- R = The relative performance test concentration per indicated ppm for your HCI CPMS;
- Y1 = The average HCl concentration as ppmvd @7% O2 during the performance test;
- X1 = The average indicated ppm output from your HCI CPMS; and
- z =The ppm of your instrument zero determined from paragraph (b)(6)(v)(C)(1) of this section.
- (5) Determine your source specific 30 kiln operating day operating limit using HC1 CPMS indicated value from Equation 11c in Equation 11d, below. This sets your operating limit at the HC1 CPMS output value corresponding to 75 percent of your emission limit.

Where:

- OI = The operating limit for your HCI CPMS on a 30 kiln operating day average, as indicated ppm;
- L = 3 ppm vd @7% O2:
- z =Your instrument zero, determined from paragraph (b)(6)(v)(C)(1) of this section; and
- R = The relative performance test concentration per indicated ppm for your HCI CPMS, from Equation 11c.
- (D) If the average of your HCl compliance test runs is at or above 75 percent of your HCl emission limit (2.25 ppmvd@7% O2) you must determine your operating limit by averaging the HCI CPMS output corresponding to your HCI performance test runs that demonstrate compliance with the emission limit using Equation 11e.

Where:

- Oh = Your site specific HCI CPMS operating limit, in indicated ppm.
- Xi = The HCI CPMS data points for all runs i.
- n =The number of data points.





(E) To determine continuous compliance with the operating limit, you must record the HCI CPMS indicated output data for all periods when the process is operating and use all the HCI CPMS data for calculations when the source is not out of control. You must demonstrate continuous compliance with the operating limit by using all quality-assured hourly average data collected by the HCI CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (ppmw) on a 30 kiln operating day rolling average basis, updated at the end of each new kiln operating day. Use Equation 11f to determine the 30 kiln operating day average.

Where:

30 kiln operating day parameter average = The average indicated value for the CPMS parameter over the previous 30 days of kiln operation;

Hpvi = The hourly parameter value for hour i; and

- n = The number of valid hourly parameter values collected over 30 kiln operating days.
- (F) If you exceed the 30 kiln operating day operating limit, you must evaluate the control system operation and re-set the operating limit.
- (G) The owner or operator of a kiln with an inline raw mill and subject to limitations on HCI emissions must demonstrate initial compliance by conducting separate performance tests while the raw mill is on and while the raw mill is off. Using the fraction of time the raw mill is on calculate your HCI CPMS limit as a weighted average of the HCI CPMS indicated values measured during raw mill on and raw mill off compliance testing using Equation 11g.

Where:

- R = HCI CPMS operating limit;
- b = Average indicated HCI CPMS value during mill on operations, ppm;
- t = Fraction of operating time with mill on;
- a = Average indicated HCI CPMS value during mill off operations ppm; and
- (1-t) = Fraction of operating time with mill off.
- (H) Paragraph (b)(6)(v) of this section expires on July 25, 2017 at which time the owner or operator must demonstrate compliance with paragraphs (b)(6)(i), (ii), or (iii).
- (7) Total Organic HAP Emissions Tests. Instead of conducting the performance test specified in paragraph (b)(4) of this section, you may conduct a performance test to determine emissions of total organic HAP by following the procedures in paragraphs (b)(7)(i) through (v) of this section.
- (i) Use Method 320 of appendix A to this part, Method 18 of Appendix A of part 60, ASTM D6348-03 or a combination to determine emissions of total organic HAP. Each performance test must consist of three separate runs under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with § 63.7(e). Each run must be conducted for at least 1 hour.
- (ii) At the same time that you are conducting the performance test for total organic HAP, you must also determine a site-specific THC emissions limit by operating a THC CEMS in accordance with the requirements of § 63.1350(j). The duration of the performance test must be at least 3 hours and the average THC concentration (as calculated from the recorded output) during the 3-hour test must be calculated. You must establish your THC operating limit and determine compliance with it according to paragraphs (b)(7)(vii) and (viii) of this section. It is permissible to extend the testing time of the organic HAP performance test if you believe extended testing is required to adequately capture organic HAP and/or THC variability over time.
- (iii) If your source has an in-line kiln/raw mill you must use the fraction of time the raw mill is on and the fraction of time that





the raw mill is off and calculate this limit as a weighted average of the THC levels measured during three raw mill on and three raw mill off tests.

- (iv) If your organic HAP emissions are below 75 percent of the organic HAP standard and you determine your operating limit with paragraph (b)(7)(vii) of this section your THC CEMS must be calibrated and operated on a measurement scale no greater than 180 ppmw, as carbon, or 60 ppmw as propane.
- (v) If your kiln has an inline coal mill and/or an alkali bypass with separate stacks, you are required to measure and account for oHAP emissions from their separate stacks. You are required to measure oHAP at the coal mill inlet or outlet and you must also measure oHAP at the alkali bypass outlet. You must then calculate a flow weighted average oHAP concentration for all emission sources including the inline coal mill and the alkali bypass.
- (vi) Your THC CEMS measurement scale must be capable of reading THC concentrations from zero to a level equivalent to two times your highest THC emissions average determined during your performance test, including mill on or mill off operation. Note: This may require the use of a dual range instrument to meet this requirement and paragraph (b)(7)(iv) of this section.
- (vii) Determine your operating limit as specified in paragraphs (b)(7)(viii) and (ix) of this section. If your organic HAP performance test demonstrates your average organic HAP emission levels are below 75 percent of your emission limit (9 ppmv) you will use the average THC value recorded during the organic HAP performance test, and the average total organic HAP result of your performance test to establish your operating limit. If your organic HAP compliance test results demonstrate that your average organic HAP emission levels are at or above 75 percent of your emission limit, your operating limit is established as the average THC value recorded during the organic HAP performance test. You must establish a new operating limit after each performance test. You must repeat the performance test no later than 30 months following your last performance test and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.
- (viii) If the average organic HAP results for your three Method 18 and/or Method 320 performance test runs are below 75 percent of your organic HAP emission limit, you must calculate an operating limit by establishing a relationship of THC CEMS signal to the organic HAP concentration using the average THC CEMS value corresponding to the three organic HAP compliance test runs and the average organic HAP total concentration from the Method 18 and/or Method 320 performance test runs with the procedures in (b)(7)(viii)(A) and (B) of this section.
- (A) Determine the THC CEMS average value in ppmvw, and the average of your corresponding three total organic HAP compliance test runs, using Equation 12.

Where:

- x^{-} = The average THC CEMS value in ppmvw, as propane.
- Xi = The THC CEMS data points in ppmw, as propane, for all three test runs.
- y^{-} = The average organic HAP value in ppmvd, corrected to 7 percent oxygen.
- Yi = The organic HAP concentrations in ppmvd, corrected to 7 percent oxygen, for all three test runs.
- n = The number of data points.
- (B) You must use your 3-run average THC CEMS value and your 3-run average organic HAP concentration from your Method 18 and/or Method 320 compliance tests to determine the operating limit. Use equation 13 to determine your operating limit in units of ppmw THC, as propane.

Where:

- TI = The 30-day operating limit for your THC CEMS, ppmvw, as propane.
- y = The average organic HAP concentration from Eq. 12, ppmvd, corrected to 7 percent oxygen.



- \bar{x} = The average THC CEMS concentration from Eq. 12, ppm/w, as propane.
- 9 = 75 percent of the organic HAP emissions limit (12 ppmvd, corrected to 7 percent oxygen)
- (ix) If the average of your three organic HAP performance test runs is at or above 75 percent of your organic HAP emission limit, you must determine your operating limit using Equation 14 by averaging the THC CEMS output values corresponding to your three organic HAP performance test runs that demonstrate compliance with the emission limit. If your new THC CEMS value is below your current operating limit, you may opt to retain your current operating limit, but you must still submit all performance test and THC CEMS data according to the reporting requirements in paragraph (d)(1) of this section.

Where:

- X1 = The THC CEMS data points for all runs i.
- n =The number of data points.
- Th = Your site specific operating limit, in ppmww THC.
- (x) If your kiln has an inline kiln/raw mill, you must conduct separate performance tests while the raw mill is operating ("mill on") and while the raw mill is not operating ("mill off"). Using the fraction of time the raw mill is on and the fraction of time that the raw mill is off, calculate this limit as a weighted average of the THC levels measured during raw mill on and raw mill off compliance testing with Equation 15.

Where:

- R = Operating limit as THC, ppmww.
- y = Average THC CEMS value during mill on operations, ppmvw.
- t = Percentage of operating time with mill on.
- x = Average THC CEMS value during mill off operations, ppm vw.
- (1-t) = Percentage of operating time with mill off.
- (xi) To determine continuous compliance with the THC operating limit, you must record the THC CEMS output data for all periods when the process is operating and the THC CEMS is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the THC CEMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (ppmw) on a 30 operating day rolling average basis, updated at the end of each new kiln operating day. Use Equation 16 to determine the 30 kiln operating day average.

Where:

- Hpvi = The hourly parameter value for hour i, ppmvw.
- n = The number of valid hourly parameter values collected over 30 kiln operating days.
- (xii) Use EPA Method 18 or Method 320 of appendix A to part 60 of this chapter to determine organic HAP emissions. For each performance test, conduct at least three separate runs under the conditions that exist when the affected source is operating at the level reasonably expected to occur. If your source has an in-line kiln/raw mill you must conduct three separate test runs with the raw mill on, and three separate runs under the conditions that exist when the affected source is operating at the level reasonably expected to occur with the mill off. Conduct each Method 18 test run to collect a minimum target sample equivalent to three times the method detection limit. Calculate the average of the results from three runs to determine compliance.
- (xiii) If the THC level exceeds by 10 percent or more your site-specific THC emissions limit, you must

37-00013G

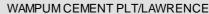


SECTION E. Source Group Plan Approval Restrictions.

- (A) As soon as possible but no later than 30 days after the exceedance, conduct an inspection and take corrective action to return the THC CEMS measurements to within the established value; and
- (B) Within 90 days of the exceedance or at the time of the 30 month compliance test, whichever comes first, conduct another performance test to determine compliance with the organic HAP limit and to verify or re-establish your site-specific THC emissions limit.
- (8) HCI Emissions Tests with SO2 Monitoring. If you choose to monitor SO2 emissions using a CEMS to demonstrate HCI compliance, follow the procedures in (b)(8)(i) through (ix) of this section and in accordance with the requirements of § 63.1350(I)(3). You must establish an SO2 operating limit equal to the average recorded during the HCI stack test. This operating limit will apply only for demonstrating HCI compliance.
- (i) Use Method 321 of appendix A to this part to determine emissions of HCI. Each performance test must consist of three separate runs under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with § 63.7(e). Each run must be conducted for at least one hour.
- (ii) At the same time that you are conducting the performance test for HCI, you must also determine a site-specific SO2 emissions limit by operating an SO2 CEMS in accordance with the requirements of § 63.1350(I). The duration of the performance test must be three hours and the average SO2 concentration (as calculated from the average output) during the 3-hour test must be calculated. You must establish your SO2 operating limit and determine compliance with it according to paragraphs (b)(8)(vii) and (viii) of this section.
- (iii) If your source has an in-line kiln/raw mill you must use the fraction of time the raw mill is on and the fraction of time that the raw mill is off and calculate this limit as a weighted average of the SO2 levels measured during raw mill on and raw mill off testing.
- (iv) Your SO2 CEMS must be calibrated and operated according to the requirements of § 60.63(f).
- (v) Your SO2 CEMS measurement scale must be capable of reading SO2 concentrations consistent with the requirements of § 60.63(f), including mill on or mill off operation.
- (vi) If your kiln has an inline kiln/raw mill, you must conduct separate performance tests while the raw mill is operating ("mill on") and while the raw mill is not operating ("mill off"). Using the fraction of time that the raw mill is on and the fraction of time that the raw mill is off, calculate this limit as a weighted average of the SO2 levels measured during raw mill on and raw mill off compliance testing with Equation 17.

Where:

- R = Operating limit as SO2, ppmv.
- y = Average SO2 CEMS value during mill on operations, ppmv.
- t = Percentage of operating time with mill on, expressed as a decimal.
- x = Average SO2 CEMS value during mill off operations, ppmv.
- 1-t = Percentage of operating time with mill off, expressed as a decimal.
- (vii) If the average of your three HCI compliance test runs is below 75 percent of your HCI emission limit, you may as a compliance alternative, calculate an operating limit by establishing a relationship of SO2 CEMS signal to your HCI concentration corrected to 7 percent O2 by using the SO2 CEMS instrument zero, the average SO2 CEMS values corresponding to the three compliance test runs, and the average HCI concentration from the HCI compliance test with the procedures in (b)(8)(vii)(A) through (D) of this section.
- (A) Determine your SO2 CEMS instrument zero output with one of the following procedures:
- (1) Zero point data for in-situ instruments should be obtained by removing the instrument from the stack and monitoring





ambient air on a test bench.

37-00013G

- (2) Zero point data for extractive instruments may be obtained by removing the extractive probe from the stack and drawing in clean ambient air.
- (3) The zero point may also be established by performing probe-flood introduction of high purity nitrogen or certified zero air free of SO2.
- (4) If none of the steps in paragraphs (b)(8)(vii)(A)(1) through (3) of this section are possible, you must use a zero output value provided by the manufacturer.
- (B) Determine your SO2 CEMS instrument average ppmv, and the average of your corresponding three HCl compliance test runs, using Equation 18.

Where:

- \bar{x} = The average SO2 CEMS value in ppmv.
- X1 = The SO2 CEMS data points in ppmv for the three runs constituting the performance test.
- y^{-} = The average HCl value in ppmvd, corrected to 7 percent oxygen.
- Y1 = The HCl emission concentration expressed as ppmvd, corrected to 7 percent oxygen for the threeruns constituting the performance test.
- n =The number of data points.
- (C) With your instrument zero expressed in ppmv, your SO2 CEMS three run average expressed in ppmv, and your 3-run HCl compliance test average in ppmvd, corrected to 7 percent O2, determine a relationship of ppmvd HCl corrected to 7 percent O2 per ppmv SO2 with Equation 19.

Where:

- R = The relative HCI ppmvd, corrected to 7 percent oxygen, per ppmv SO2 for your SO2 CEMS.
- y^{-} = The average HCl concentration from Eq. 18 in ppmvd, corrected to 7 percent oxygen.
- \bar{x} = The average SO2 CEMS value from Eq. 18 in ppmv.
- z =The instrument zero output ppmv value.
- (D) Determine your source specific 30-day rolling average operating limit using ppm HCl corrected to 7 percent O2 per ppm SO2 value from Equation 19 in Equation 20, below. This sets your operating limit at the SO2 CEMS ppm value corresponding to 75 percent of your emission limit.

Where:

- OI = The operating limit for your SO2 CEMS on a 30-day rolling average, in ppmv.
- L = Your source HCI emission limit expressed in ppmv corrected to 7 percent O2.
- z = Your instrument zero in ppmv, determined from (1)(i).
- R = The relative oxygen corrected ppmv HCl per ppmv SO2, for your SO2 CEMS, from Equation 19.
- (viii) To determine continuous compliance with the SO2 operating limit, you must record the SO2 CEMS output data for all periods when the process is operating and the SO2 CEMS is not out-of-control. You must demonstrate continuous





compliance by using all quality-assured hourly average data collected by the SO2 CEMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (ppmww) on a 30 operating day rolling average basis, updated at the end of each new kiln operating day. Use Equation 21 to determine the 30 kiln operating day average.

Where:

Hpvi = The hourly parameter value for hour i, ppmvw.

- n = The number of valid hourly parameter values collected over 30 kiln operating days.
- (ix) Use EPA Method 321 of appendix A to part 60 of this chapter to determine HCI emissions. For each performance test, conduct at least three separate runs under the conditions that exist when the affected source is operating at the level reasonably expected to occur. If your source has an in-line kiln/raw mill you must conduct three separate test runs with the raw mill on, and three separate runs under the conditions that exist when the affected source is operating at the level reasonably expected to occur with the mill off.
- (x) If the SO2 level exceeds by 10 percent or more your site-specific SO2 emissions limit, you must:
- (A) As soon as possible but no later than 30 days after the exceedance, conduct an inspection and take corrective action to return the SO2 CEMS measurements to within the established value:
- (B) Within 90 days of the exceedance or at the time of the periodic compliance test, whichever comes first, conduct another performance test to determine compliance with the HCI limit and to verify or re-establish your site-specific SO2 emissions limit.
- (c) Performance test frequency. Except as provided in § 63.1348(b), performance tests are required at regular intervals for affected sources that are subject to a dioxin, organic HAP or HCl emissions limit. Performance tests required every 30 months must be completed no more than 31 calendar months after the previous performance test except where that specific pollutant is monitored using CEMS; performance tests required every 12 months must be completed no more than 13 calendar months after the previous performance test.
- (d) [Reseved]
- (e) Conditions of performance tests. Conduct performance tests under such conditions as the Administrator specifies to the owner or operator based on representative performance of the affected source for the period being tested. Upon request, you must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

[75 FR 55057, Sept. 9, 2010, as amended at 78 FR 10040, Feb. 12, 2013; 80 FR 44781, July 27, 2015; 80 FR 54729, Sept. 11, 2015; 81 FR 48359, July 25, 2016; 82 FR 28565, June 23, 2017; 82 FR 39673, Aug. 22, 2017; 83 FR 35132, July 25, 2018; 85 FR 63418, Oct. 7, 2020]

[40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1352]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Additional test methods.

DEP Auth ID: 1320403

- (a) If you are conducting tests to determine the rates of emission of HCI from kilns and associated bypass stacks at portland cement manufacturing facilities, for use in applicability determinations under §63.1340, you may use Method 320 or Method 321 of appendix A of this part.
- (b) Owners or operators conducting tests to determine the rates of emission of specific organic HAP from raw material dryers, and kilns at Portland cement manufacturing facilities, solely for use in applicability determinations under §63.1340 of this subpart are permitted to use Method 320 of appendix A to this part, or Method 18 of appendix A to part 60 of this chapter.

[75 FR 55063, Sept. 9, 2010, as amended at 78 FR 10053, Feb. 12, 2013]

37-00013G



SECTION E. Source Group Plan Approval Restrictions.

III. MONITORING REQUIREMENTS.

034 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Carbon monoxide (CO) emissions shall be continuously monitored with a CO CEMs.

035 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Greenhouse Gas (CO2e) emissions shall be continuously monitored with a CO2 CEMs.

036 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The following CEMS must be installed, approved by the Department, operated and maintained in accordance with the requirements of 25 Pa. Code §123.51; 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources); and the "Submittal and Approval", "Record Keeping and Reporting", and "Quality Assurance" requirements of Revision No. 8 of the Department's Continuous Source Monitoring Manual (274-0300-001 (12/2/06), and 40 CFR Part 60 Subparts A, F, 40 CFR 63 Subparts A, LLL and 40 CFR Part 75, as applicable. Compliance with any subsequently issued revisions to the Continuous Source Monitoring Manual will constitute compliance with the regulations.

CEMS #1-NOx

- a. Source combination to be monitored: Source ID 263 (Pyroprocessing Kiln)
- b. Parameter to be reported: Nitrogen Oxides (NOx (as NO2))
- c. Units of measurement to be reported: lb/hr
- d. Moisture basis of measurement to be reported: Dry
- e. Correction basis of measurements to be reported: None
- f. Data substitution required: Yes
- g. Emission Standards:
- tons/year (Derived permit limit)
- lb/ton of clinker (40 CFR 60 Subpart F)
- 1. Emission Standard #1
- (A) Emission Standard Averaging Period Description: 12-month rolling sum standard
- (B) Emission Standard Value: 854.1 tons/yr on a rolling 12-month basis (normal, startup, shutdown, and malfunction)
- (C) Emission Standard Direction: Violation if greater than emission standard value.
- (D) Variable Emission Standard: N/A
- (E) Emission Standard and/or Status: "AND"/"OR" Status: N/A
- 2. Emission Standard #2
- (A) Emission Standard Averaging Period Description: 30 operating day average rolling by 1 day
- (B) Emission Standard Value: 1.5 lb/ton of clinker
- (C) Emission Standard Direction: Violation if greater than emission standard value.
- (D) Variable Emission Standard: N/A
- (E) Emission Standard and/or Status: "AND"/"OR" Status: N/A

CEMS #2A-SOx

- a. Source combination to be monitored: Source ID 263 (Pyroprocessing Kiln)
- b. Parameter to be reported: Sulfur Oxides (SOx (as SO2))
- c. Units of measurement to be reported: lb/hr
- d. Moisture basis of measurement to be reported: Dry
- e. Correction basis of measurements to be reported: N/A
- f. Data substitution required: Yes
- g. Emission Standards:
- tons/year (Derived permit limit)
- lb/ton of clinker (40 CFR 60 Subpart F)
- 1. Emission Standard #1
- (A) Emission Standard Averaging Period Description: 12-month rolling sum standard
- (B) Emission Standard Value: 227.8 tons/yr on a rolling 12-month basis (normal, startup, shutdown, and malfunction)
- (C) Emission Standard Direction: Violation if greater than emission standard value.
- (D) Variable Emission Standard: N/A
- (E) Emission Standard and/or Status: "AND"/"OR" Status: N/A
- 2. Emission Standard #2

37-00013G



SECTION E. Source Group Plan Approval Restrictions.

- (A) Emission Standard Averaging Period Description: 30 operating day average rolling by 1 day
- (B) Emission Standard Value: 0.4 lb/ton of clinker
- (C) Emission Standard Direction: Violation if greater than emission standard value.
- (D) Variable Emission Standard: No
- (E) Emission Standard "AND"/"OR" Status: N/A

CEMS #2B-SOx

- a. Source combination to be monitored: Source ID 263 (Pyroprocessing Kiln)
- b. Parameter to be reported: Sulfur Oxides (SOx (as SO2))
- c. Units of measurement to be reported: ppm
- d. Moisture basis of measurement to be reported: Dry
- e. Correction basis of measurements to be reported: N/A
- f. Data substitution required: No
- g. Emission Standards: Per 25 Pa. Code 123.21
- 1. Emission Standard #1
- (A) Emission Standard Averaging Period Description: one (1)-hour average, block
- (B) Emission Standard Value: 500 ppm
- (C) Emission Standard Direction: Violation if greater than emission standard value.
- (D) Variable Emission Standard: No
- (E) Emission Standard "AND"/"OR" Status: N/A

CEMS #3-CO

- a. Source combination to be monitored: Source ID 263 (Pyroprocessing Kiln)
- b. Parameter to be reported: Carbon Monoxide (CO)
- c. Units of measurement to be reported: lb/hr
- d. Moisture basis of measurement to be reported: Dry
- e. Correction basis of measurements to be reported: 15% O2.
- f. Data substitution required: Yes
- g. Emission Standards:
- tons/year (Derived permit limit)
- lb/ton of clinker (BACT)
- 1. Emission Standard #1
- (A) Emission Standard Averaging Period Description: 12-month rolling sum standard
- (B) Emission Standard Value: 785.8 tons/yr on a rolling 12-month basis (normal, startup, shutdown, and malfunction)
- (C) Emission Standard Direction: Violation if greater than emission standard value.
- (D) Variable Emission Standard: N/A
- (E) Emission Standard and/or Status: "AND"/"OR" Status: N/A
- 2. Emission Standard #2
- (A) Emission Standard Averaging Period Description: 30 operating day average rolling by 1 day
- (B) Emission Standard Value: 1.38 lb/ton of clinker
- (C) Emission Standard Direction: Violation if greater than emission standard value.
- (D) Variable Emission Standard: No
- (E) Emission Standard "AND"/"OR" Status: N/A

CEMS #4-Hg

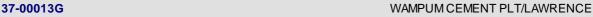
DEP Auth ID: 1320403

- a. Source combination to be monitored: Source ID 263 (Pyroprocessing Kiln)
- b. Parameter to be reported: Mercury (Hg)
- c. Units of measurement to be reported: lb/hr
- d. Moisture basis of measurement to be reported: N/A
- e. Correction basis of measurements to be reported: N/A

DEP PF ID: 246188

- f. Data substitution required: Yes
- g. Emission Standards:
- tons/year (Derived permit limit)
- lb/MMton of clinker (Subpart LLL)
- 1. Emission Standard #1
- (A) Emission Standard Averaging Period Description: 12-month rolling sum standard
- (B) Emission Standard Value: 0.012 tons/yr on a rolling 12-month basis (normal, startup, shutdown, and malfunction)

Page 121



- (C) Emission Standard Direction: Violation if greater than emission standard value.
- (D) Variable Emission Standard: N/A
- (E) Emission Standard and/or Status: "AND"/"OR" Status: N/A
- 2. Emission Standard #2
- (A) Emission Standard Averaging Period Description: 1-hour average, block
- (B) Emission Standard Value: 21.0 lb/MMton clinker (normal)
- (C) Emission Standard Direction: Violation if greater than emission standard value.
- (D) Variable Emission Standard: N/A
- (E) Emission Standard and/or Status: AND"/"OR" Status: N/A

CEMS #5A-THC

- a. Source combination to be monitored: Source ID 263 (Pyroprocessing Kiln)
- b. Parameter to be reported: Total Organic Hydrocarbon (THC)
- c. Units of measurement to be reported: ppmvd at 7% O2, rolling 30-day average
- d. Moisture basis of measurement to be reported: Dry
- e. Correction basis of measurements to be reported: Yes
- f. Data substitution required: Yes THC measured as propane.
- g. Emission Standards:
- ppmvd at 7% O2 OR
- ppmvd, for total organic (Subpart LLL)
- 1. Emission Standard #1
- (A) Emission Standard Averaging Period Description: 30 operating day average rolling by 1 day
- (B) Emission Standard Value: 24 ppmvd at 7% O2 (normal)
- (C) Emission Standard Direction: Violation if greater than emission standard value.
- (D) Variable Emission Standard: No
- (E) Emission Standard "AND"/"OR" Status: N/A
- 2. Emission Standard #2
- (A) Emission Standard Averaging Period Description: 30-operating day rolling average based on operating hour.
- (B) Emission Standard Value: 12 ppmvd, for total organic HAP (normal)
- (C) Emission Standard Direction: Violation if greater than emission standard value.
- (D) Variable Emission Standard: N/A
- (E) Emission Standard and/or Status: "AND"/"OR" Status: N/A

CEMS #5B-THC

- a. Source combination to be monitored: Source ID 263 (Pyroprocessing Kiln)
- b. Parameter to be reported: Total Organic Hydrocarbon (THC)
- c. Units of measurement to be reported: lb/hr, rolling 30-day average
- d. Moisture basis of measurement to be reported: Dry
- e. Correction basis of measurements to be reported: Yes
- f. Data substitution required: Yes THC measured as propane.
- g. Emission Standards:
- tons/year (Derived permit limit)
- 1. Emission Standard #1
- (F) Emission Standard Averaging Period Description:: 12-month rolling sum standard; rolling by 1-month.
- (A) Emission Standard Value: 129.6 tons/yr on a 12 month rolling basis (normal)
- (B) Emission Standard Direction: Violation if greater than emission standard value.
- (C) Variable Emission Standard: N/A
- (D) Emission Standard and/or Status: "AND"/"OR" Status: N/A

CEMS #6-CO2e

- a. Source combination to be monitored: Source ID 263 (Pyroprocessing Kiln)
- b. Parameter to be reported: Carbon Dioxide equivalents (CO2e)
- c. Units of measurement to be reported: ton/hr
- d. Moisture basis of measurement to be reported: Dry
- e. Correction basis of measurements to be reported: N/A
- f. Data substitution required: Yes.
- g. Emission Standards:





- ton/ton of clinker (BACT)
- 1. Emission Standard #1
- (A) Emission Standard Averaging Period Description: Rolling 12-month average
- (B) Emission Standard Value: 0.92 ton/ton clinker (normal)
- (C) Emission Standard Direction: Violation if greater than emission standard value.
- (D) Variable Emission Standard: No
- (E) Emission Standard "AND"/"OR" Status: NA

CEMS #7-Clinker Production

- a. Source combination to be monitored: Source ID 263 (Pyroprocessing Kiln) and Source ID 264 (Clinker Cooler)
- b. Parameter to be reported: Hourly Clinker Production
- c. Units of measurement to be reported: ton/hr and MMton/hr on a kiln operating hour basis
- d. Moisture basis of measurement to be reported: N/A
- e. Correction basis of measurements to be reported: N/A
- f. Data substitution required: Yes.

In accordance with 40 CFR 60 Subpart F and as per Revision No. 8 of the Department's Continuous Source Monitoring Manual (274-0300-001, 40 CFR Part 75 and/or in accordance with Department-approved methodology, as applicable. Ton/hour clinker production shall be used to convert data and determine the mass emission rates for multiple pollutants (PM, NOx, VOC, CO, H2SO4, Hg, CO2e and SOx) to lb/ton clinker units. Alternatively, kiln feed rates can also be used to calculate clinker production rates.

g. Emission Standard: N/A

CEMS #8-Oxygen (O2)

- a. Source Combination to be Monitored: Source ID 263 (Pyroprocessing Kiln)
- b. Parameter to be Reported: O2
- c. Units of Measurement to be Reported: percent
- d. Moisture Basis of Measurement to be Reported: N/A
- e. Correction basis of Measurements to be Reported: N/A
- f. Data Substitution Required: N/A
- g. Emission Standard: N/A

037 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The main pyroprocessing stack, Stack ID S259, shall be equipped with a continuous opacity monitoring system (COMS) to demonstrate compliance with the opacity limitations.

The COMS shall be installed, operated, and maintained in accordance with the requirements as follows:

- The COMS must be installed at the outlet of the PM control device
- The COMS must be installed, maintained, calibrated, and operated as required by the general provisions in 40 CFR 63 subpart A and according to PS-1 of appendix B to part 60 of this chapter.

038 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Continuous Opacity Monitor (COMS) shall also be operated and maintained in accordance with the quality assurance, record keeping, and reporting requirements of 25 Pa. Code Chapter 139 and the Department's latest Continuous Source Monitoring Manual.

039 [25 Pa. Code §129.100]

DEP Auth ID: 1320403

Compliance demonstration and recordkeeping requirements.

- (a) Except as provided in subsection (c), the owner and operator of an air contamination source subject to a NOx RACT requirement or RACT emission limitation or VOC RACT requirement or RACT emission limitation, or both, listed in § 129.97 (relating to presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule) shall demonstrate compliance with the applicable RACT requirement or RACT emission limitation by performing the following monitoring or testing procedures:
 - (1) For an air contamination source with a CEMS, monitoring and testing in accordance with the requirements of Chapter





- 139, Subchapter C (relating to requirements for source monitoring for stationary sources) using a 30-day rolling average, except municipal waste combustors.
- (i) A 30-day rolling average emission rate for an air contamination source that is a combustion unit shall be expressed in pounds per million Btu and calculated in accordance with the following procedure:
- (A) Sum the total pounds of pollutant emitted from the combustion unit for the current operating day and the previous 29 operating days.
- (B) Sum the total heat input to the combustion unit in million Btu for the current operating day and the previous 29 operating days.
- (C) Divide the total number of pounds of pollutant emitted by the combustion unit for the 30 operating days by the total heat input to the combustion unit for the 30 operating days.
- (ii) A 30-day rolling average emission rate for each applicable RACT emission limitation shall be calculated for an affected air contamination source for each consecutive operating day.
- (iii) Each 30-day rolling average emission rate for an affected air contamination source must include the emissions that occur during the entire operating day, including emissions from start-ups, shutdowns and malfunctions.
- (2) For a Portland cement kiln with a CEMS, monitoring of clinker production rates in accordance with 40 CFR 63.1350(d) (relating to monitoring requirements).
 - (3) N/A

- (4) For an air contamination source without a CEMS, monitoring and testing in accordance with a Department-approved emissions source test that meets the requirements of Chapter 139, Subchapter A (relating to sampling and testing methods and procedures). The source test shall be conducted one time in each 5-year calendar period.
- (b) Except as provided in § 129.97(k) and § 129.99(i) (relating to alternative RACT proposal and petition for alternative compliance schedule), the owner and operator of an air contamination source subject to subsection (a) shall demonstrate compliance with the applicable RACT requirement or RACT emission limitation in accordance with the procedures in subsection (a) not later than:
 - (1) January 1, 2017, for a source subject to § 129.96(a) (relating to applicability).
- (2) January 1, 2017, or 1 year after the date that the source meets the definition of a major NOx emitting facility or major VOC emitting facility, whichever is later, for a source subject to § 129.96(b).
- (c) An owner or operator of an air contamination source subject to this section, § § 129.96 and 129.97 and § 129.98 (relating to facility-wide or system-wide NOx emissions averaging plan general requirements) may request a waiver from the requirement to demonstrate compliance with the applicable emission limitation listed in § 129.97 if the following requirements are met:
 - (1) The request for a waiver is submitted, in writing, to the Department not later than:
 - (i) October 24, 2016, for a source subject to § 129.96(a).
- (ii) October 24, 2016, or 6 months after the date that the source meets the definition of a major NOx emitting facility or major VOC emitting facility, whichever is later, for a source subject to § 129.96(b).
- (2) The request for a waiver demonstrates that a Department-approved emissions source test was performed in accordance with the requirements of Chapter 139, Subchapter A, on or after:
 - (i) April 23, 2015, for a source subject to § 129.96(a).



- (ii) April 23, 2015, or within 12 months prior to the date that the source meets the definition of a major NOx emitting facility or major VOC emitting facility, whichever is later, for a source subject to § 129.96(b).
- (3) The request for a waiver demonstrates to the satisfaction of the Department that the test results show that the source's rate of emissions is in compliance with the source's applicable NOx emission limitation or VOC emission limitation.
 - (4) The Department approves, in writing, the request for a waiver.
- (d) See Recordkeeping
- (e) See Recordkeeping
- (f) See Recordkeeping
- (g) N/A

DEP Auth ID: 1320403

(h) and (i) - See Recordkeeping

[Authority The provisions of this § 129.100 issued under section 5(a)(1) and (8) of the Air Pollution Control Act (35 P.S. § 4005(a)(1) and (8)). Source The provisions of this § 129.100 adopted April 22, 2016, effective April 23, 2016, 46 Pa.B. 2036; amended August 10, 2018, effective August 11, 2018, 48 Pa.B. 4814. Immediately preceding text appears at serial pages (380517) to (380520).]

040 [25 Pa. Code §145.144.]

Compliance determination.

- (a) By April 15, 2011, the owner or operator of a Portland cement kiln subject to § 145.143(b)(2) (relating to standard requirements) shall:
 - (1) Install, operate and maintain CEMS for NOx emissions.
- (2) Report CEMS emissions data, in accordance with the CEMS requirements of Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources), to the Department.
 - (3) Calculate actual emissions using the CEMS data reported to the Department.
- (b) If approved by the Department in writing, data invalidated under Chapter 139, Subchapter C, shall be substituted with one of the following:
- (1) The highest valid 1-hour emission value that occurred under similar source operating conditions during the reporting quarter for an invalid data period during that quarter.
 - (2) If no valid data were collected during the reporting quarter, one of the following shall be reported to the Department:
- (i) The highest valid 1-hour emission value that occurred under similar source operating conditions during the most recent quarter for which valid data were collected.
- (ii) The highest valid 1-hour emission value that occurred under similar source operating conditions during an alternative reporting period.
 - (3) An alternative method of data substitution.
- (c) The owner or operator of a Portland cement kiln subject to this section shall submit to the Department quarterly reports of CEMS monitoring data in pounds of NOx emitted per hour, in a format approved by the Department, which is in compliance with Chapter 139, Subchapter C.
- (d) The CEMS for NOx installed under the requirements of this section must meet the minimum data availability requirements in Chapter 139, Subchapter C.

[Authority The provisions of this § 145.144 issued under section 5(a)(1) of the Air Pollution Control Act (35 P. S. § 4005(a)(1)). Source The provisions of this § 145.144 adopted June 18, 2010, effective June 19, 2010, 40 Pa.B. 3346.]





041 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.63] Subpart F - Standards of Performance for Portland Cement Plants Monitoring of operations.

(a) [Reserved]

DEP Auth ID: 1320403

- (b) Clinker production monitoring requirements. For any kiln subject to an emissions limitation on PM, NOX, or SO2 emissions (lb/ton of clinker), you must:
- (1) Determine hourly clinker production by one of two methods:
- (i) Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates of the amount of clinker produced in tons of mass per hour. The system of measuring hourly clinker production must be maintained within ±5 percent accuracy or
- (ii) Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates of the amount of feed to the kiln in tons of mass per hour. The system of measuring feed must be maintained within ±5 percent accuracy. Calculate your hourly clinker production rate using a kiln specific feed-to-clinker ratio based on reconciled clinker production rates determined for accounting purposes and recorded feed rates. This ratio should be updated monthly. Note that if this ratio changes at clinker reconciliation, you must use the new ratio going forward, but you do not have to retroactively change clinker production rates previously estimated.
- (iii) For each kiln operating hour for which you do not have data on clinker production or the amount of feed to the kiln, use the value from the most recent previous hour for which valid data are available.
- (2) Determine, record, and maintain a record of the accuracy of the system of measuring hourly clinker production rates or feed rates before initial use (for new sources) or by the effective compliance date of this rule (for existing sources). During each quarter of source operation, you must determine, record, and maintain a record of the ongoing accuracy of the system of measuring hourly clinker production rates or feed rates.
- (3) If you measure clinker production directly, record the daily clinker production rates; if you measure the kiln feed rates and calculate clinker production, record the daily kiln feed and clinker production rates.
- (c) PM Emissions Monitoring Requirements.

DEP PF ID: 246188

- (1) For each kiln or clinker cooler subject to a PM emissions limit in §§ 60.62(a)1(ii) and 60.62(a)1(iii) or §§ 60.62(b)(1)(i) and 60.62(b)(1)(ii), you must demonstrate compliance through an initial performance test. You will conduct your performance test using Method 5 or Method 5I at appendix A-3 to part 60 of this chapter. You must also monitor continuous performance through use of a PM CPMS.
- (2) For your PM CPMS, you will establish a site-specific operating limit. If your PM performance test demonstrates your PM emission levels to be below 75 percent of your emission limit you will use the average PM CPMS value recorded during the PM compliance test, the milliamp equivalent of zero output from your PM CPMS, and the average PM result of your compliance test to establish your operating limit equivalent to 75 percent of the standard. If your PM compliance test demonstrates your PM emission levels to be at or above 75 percent of your emission limit you will use the average PM CPMS value recorded during the PM compliance test demonstrating compliance with the PM limit to establish your operating limit. You will use the PM CPMS to demonstrate continuous compliance with your operating limit. You must repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.
- (i) Your PM CPMS must provide a 4-20 milliamp or digital signal output and the establishment of its relationship to manual reference method measurements must be determined in units of milliamps or the monitors digital equivalent.
- (ii) Your PM CPMS operating range must be capable of reading PM concentrations from zero to a level equivalent to two times your allowable emission limit. If your PM CPMS is an auto-ranging instrument capable of multiple scales, the primary range of the instrument must be capable of reading PM concentration from zero to a level equivalent to two times your allowable emission limit.
- (iii) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record and average all milliamp or digital output values from the PM CPMS for the periods corresponding to the compliance test runs (e.g., average all your PM CPMS output values for three corresponding 2-hour Method 5I test runs).
- (3) Determine your operating limit as specified in paragraphs (c)(4)(i) through (c)(5) of this section. If your PM performance test demonstrates your PM emission levels to be below 75 percent of your emission limit, you will use the average PM

Page 126

DEP Auth ID: 1320403





SECTION E. Source Group Plan Approval Restrictions.

CPMS value recorded during the PM compliance test, the milliamp or digital equivalent of zero output from your PM CPMS, and the average PM result of your compliance test to establish your operating limit. If your PM compliance test demonstrates your PM emission levels to be at or above 75 percent of your emission limit, you will use the average PM CPMS value recorded during the PM compliance test to establish your operating limit. You must verify an existing or establish a new operating limit after each repeated performance test. You must repeat the performance test at least annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.

- (4) If the average of your three Method 5 or 5I compliance test runs are below 75 percent of your PM emission limit, you must calculate an operating limit by establishing a relationship of PM CPMS signal to PM concentration using the PM CPMS instrument zero, the average PM CPMS values corresponding to the three compliance test runs, and the average PM concentration from the Method 5 or 5I compliance test with the procedures in (c)(4)(i)(A) through (D) of this section.
- (i) Determine your PM CPMS instrument zero output with one of the following procedures.
- (A) Zero point data for in-situ instruments should be obtained by removing the instrument from the stack and monitoring ambient air on a test bench.
- (B) Zero point data for extractive instruments should be obtained by removing the extractive probe from the stack and drawing in clean ambient air.
- (C) The zero point can also can be obtained by performing manual reference method measurements when the flue gas is free of PM emissions or contains very low PM concentrations (e.g., when your process is not operating, but the fans are operating or your source is combusting only natural gas) and plotting these with the compliance data to find the zero intercept.
- (D) If none of the steps in paragraphs (c)(4)(i)(A) through (C) of this section are possible, you must use a zero output value provided by the manufacturer.
- (ii) Determine your PM CPMS instrument average in milliamps or digital equivalent and the average of your corresponding three PM compliance test runs, using equation 1. [For Equation 1 refer to regulation]

Where: X1 = The PM CPMS data points for the three runs constituting the performance test, Y1 = The PM concentration value for the three runs constituting the performance test, and n = The number of data points.

(iii) With your PM CPMS instrument zero expressed in milliamps or a digital value, your three run average PM CPMS milliamp or digital signal value, and your three run average PM concentration from your three PM performance test runs, determine a relationship of lb/ton-clinker per milliamp or digital signal with equation 2. [For Equation 2 refer to regulation]

Where: R = The relative lb/ton clinker per milliamp or digital equivalent for your PM CPMS. Y1 = The three run average PM lb/ton clinker. X1 = The three run average milliamp or digital signal output from your PM CPMS. <math>z = The milliamp or digital equivalent of your instrument zero determined from (c)(4)(i) of this section.

- (iv) Determine your source specific 30-day rolling average operating limit using the lb/ton-clinker per milliamp or digital signal value from Equation 2 above in Equation 3, below. [For Equation 3 refer to regulation] This sets your operating limit at the PM CPMS output value corresponding to 75 percent of your emission limit.
- Where: OI = The operating limit for your PM CPMS on a 30-day rolling average, in milliamps or the digital equivalent. L = Your source emission limit expressed in lb/ton clinker. z = Your instrument zero in milliamps or a digital equivalent, determined from (1)(i). R = The relative lb/ton-clinker per milliamp or digital equivalent, for your PM CPMS, from Equation 2.
- (5) If the average of your three PM compliance test runs is at or above 75 percent of your PM emission limit, you must determine your operating limit by averaging the PM CPMS milliamp or digital equivalent output corresponding to your three PM performance test runs that demonstrate compliance with the emission limit using Equation 4. [For Equation 4 refer to regulation]

Where: X1 = The PM CPMS data points for all runs i. n = The number of data points. Oh = Your site specific operating limit, in milliamps or digital equivalent.

(6) To determine continuous compliance, you must record the PM CPMS output data for all periods when the process is operating, and use all the PM CPMS data for calculations when the source is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps or the digital equivalent) on a 30 operating day rolling average basis, updated at the end of each new kiln operating day. Use Equation 5 to determine the 30 kiln operating day average. [For Equation 5 refer to the regulation]

Where: Hpvi = The hourly parameter value for hour i. n = The number of valid hourly parameter values collected over the

Page 127

DEP PF ID: 246188





previous 30 kiln operating days.

- (7) Use EPA Method 5 or Method 5I of appendix A to part 60 of this chapter to determine PM emissions. For each performance test, conduct at least three separate runs each while the mill is on and the mill is off under the conditions that exist when the affected source is operating at the level reasonably expected to occur. Conduct each test run to collect a minimum sample volume of 2 dscm for determining compliance with a new source limit and 1 dscm for determining compliance with an existing source limit. Calculate the time weighted average of the results from three consecutive runs to determine compliance. You need not determine the particulate matter collected in the impingers ("back half") of the Method 5 or Method 5I particulate sampling train to demonstrate compliance with the PM standards of this subpart. This shall not preclude the permitting authority from requiring a determination of the "back half" for other purposes.
- (8) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g. beta attenuation), span of the instruments primary analytical range, milliamp or digital signal value equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp or digital equivalent signals corresponding to each PM compliance test run.
- (d) You must install, operate, calibrate, and maintain a CEMS continuously monitoring and recording the concentration by volume of NOX emissions into the atmosphere for any kiln subject to the NOX emissions limit in § 60.62(a)(3). If the kiln has an alkali bypass, NOX emissions from the alkali bypass do not need to be monitored, and NOX emission monitoring of the kiln exhaust may be done upstream of any commingled alkali bypass gases.
- (e) You must install, operate, calibrate, and maintain a CEMS for continuously monitoring and recording the concentration by volume of SO2 emissions into the atmosphere for any kiln subject to the SO2 emissions limit in § 60.62(a)(4). If you are complying with the alternative 90 percent SO2 emissions reduction emissions limit, you must also continuously monitor and record the concentration by volume of SO2 present at the wet scrubber inlet.
- (f) The NOX and SO2 CEMS required under paragraphs (d) and (e) of this section must be installed, operated and maintained according to Performance Specification 2 of appendix B of this part and the requirements in paragraphs (f)(1) through (5) of this section.
- (1) The span value of each NOX CEMS monitor must be set at 125 percent of the maximum estimated hourly potential NOX emission concentration that translates to the applicable emissions limit at full clinker production capacity.
- (2) You must conduct performance evaluations of each NOX CEMS monitor according to the requirements in § 60.13(c) and Performance Specification 2 of appendix B to this part. You must use Methods 7, 7A, 7C, 7D, or 7E of appendix A-4 to this part for conducting the relative accuracy evaluations. The method ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses," (incorporated by reference see § 60.17) is an acceptable alternative to Method 7 or 7C of appendix A-4 to this part.
- (3) The span value for the SO2 CEMS monitor is the SO2 emission concentration that corresponds to 125 percent of the applicable emissions limit at full clinker production capacity and the expected maximum fuel sulfur content.
- (4) You must conduct performance evaluations of each SO2 CEMS monitor according to the requirements in § 60.13(c) and Performance Specification 2 of appendix B to this part. You must use Methods 6, 6A, or 6C of appendix A-4 to this part for conducting the relative accuracy evaluations. The method ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses," (incorporated by reference see § 60.17) is an acceptable alternative to Method 6 or 6A of appendix A-4 to this part.
- (5) You must comply with the quality assurance requirements in Procedure 1 of appendix F to this part for each NOX and SO2 CEMS, including quarterly accuracy determinations for monitors, and daily calibration drift tests.
- (g) For each CPMS or CEMS required under paragraphs (c) through (e) of this section:
- (1) You must operate the monitoring system and collect data at all required intervals at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments).





- (2) You may not use data recorded during the monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities in calculations used to report emissions or operating levels. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. An owner or operator must use all the data collected during all other periods in reporting emissions or operating levels.
- (3) You must meet the requirements of § 60.13(h) when determining the 1-hour averages of emissions data.
- (h) You must install, operate, calibrate, and maintain instruments for continuously measuring and recording the stack gas flow rate to allow determination of the pollutant mass emissions rate to the atmosphere for each kiln subject to the PM emissions limits in § 60.62(a)(1)(ii) and (iii) and (b)(1)(i) and (ii), the NOX emissions limit in § 60.62(a)(3), or the SO2 emissions limit in § 60.62(a)(4) according to the requirements in paragraphs (h)(1) through (10), where appropriate, of this section.
- (1) The owner or operator must install each sensor of the flow rate monitoring system in a location that provides representative measurement of the exhaust gas flow rate at the sampling location of the NOX and/or SO2 CEMS, taking into account the manufacturer's recommendations. The flow rate sensor is that portion of the system that senses the volumetric flow rate and generates an output proportional to that flow rate.
- (2) The flow rate monitoring system must be designed to measure the exhaust gas flow rate over a range that extends from a value of at least 20 percent less than the lowest expected exhaust flow rate to a value of at least 20 percent greater than the highest expected exhaust gas flow rate.
- (3) The flow rate monitoring system must have a minimum accuracy of 5 percent of the flow rate.
- (4) The flow rate monitoring system must be equipped with a data acquisition and recording system that is capable of recording values over the entire range specified in paragraph (h)(2) of this section.
- (5) The signal conditioner, wiring, power supply, and data acquisition and recording system for the flow rate monitoring system must be compatible with the output signal of the flow rate sensors used in the monitoring system.
- (6) The flow rate monitoring system must be designed to measure a minimum of one cycle of operational flow for each successive 15-minute period.
- (7) The flow rate sensor must be able to determine the daily zero and upscale calibration drift (CD) (see sections 3.1 and 8.3 of Performance Specification 2 in appendix B to this part for a discussion of CD).
- (i) Conduct the CD tests at two reference signal levels, zero (e.g., 0 to 20 percent of span) and upscale (e.g., 50 to 70 percent of span).
- (ii) The absolute value of the difference between the flow monitor response and the reference signal must be equal to or less than 3 percent of the flow monitor span.
- (8) You must perform an initial relative accuracy test of the flow rate monitoring system according to section 8.2 of Performance Specification 6 of appendix B to this part, with the exceptions noted in paragraphs (h)(8)(i) and (ii) of this section.
- (i) The relative accuracy test is to evaluate the flow rate monitoring system alone rather than a continuous emission rate monitoring system.
- (ii) The relative accuracy of the flow rate monitoring system shall be no greater than 10 percent of the mean value of the reference method data.
- (9) You must verify the accuracy of the flow rate monitoring system at least once per year by repeating the relative accuracy test specified in paragraph (h)(8) of this section.
- (10) You must operate the flow rate monitoring system and record data during all periods of operation of the affected facility including periods of startup, shutdown, and malfunction, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments.





- (i) Development and Submittal (Upon Request) of Monitoring Plans. To demonstrate compliance with any applicable emissions limit through performance stack testing or other emissions monitoring (including PM CPMS), you must develop a site-specific monitoring plan according to the requirements in paragraphs (i)(1) through (4) of this section. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under § 60.13(3)(i). If you use a bag leak detector system (BLDS), you must also meet the requirements specified in paragraph § 63.1350(m)(10) of this chapter.
- (1) For each continuous monitoring system (CMS) required in this section, you must develop, and submit to the permitting authority for approval upon request, a site-specific monitoring plan that addresses paragraphs (i)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan, if requested, at least 30 days before the initial performance evaluation of your CMS.
- (i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device):
- (ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and
- (iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations).
- (2) In your site-specific monitoring plan, you must also address paragraphs (i)(2)(i) through (iii) of this section.
- (i) Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1), (c)(3), and (c)(4)(ii);
- (ii) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d); and
- (iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c), (e)(1), and (e)(2)(i).
- (3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.
- (4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

[75 FR 55035, Sept. 9, 2010, as amended at 78 FR 10032, Feb. 12, 2013; 80 FR 44777, July 27, 2015]

042 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1350]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Monitoring requirements.

- (a)(1) Following the compliance date, the owner or operator must demonstrate compliance with this subpart on a continuous basis by meeting the requirements of this section.
- (2) [Reserved]

- (3) For each existing unit that is equipped with a CMS, maintain the average emissions or the operating parameter values within the operating parameter limits established through performance tests.
- (4) Any instance where the owner or operator fails to comply with the continuous monitoring requirements of this section is a violation.
- (b) PM monitoring requirements. (1)(i) PM CPMS. You will use a PM CPMS to establish a site-specific operating limit corresponding to the results of the performance test demonstrating compliance with the PM limit. You will conduct your performance test using Method 5 or Method 5I at appendix A-3 to part 60 of this chapter. You will use the PM CPMS to demonstrate continuous compliance with this operating limit. You must repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test using the procedures in § 63.1349(b)(1) (i) through (vi) of this subpart. You must also repeat the test if you change the analytical range of the instrument, or if you replace the instrument itself or any principle analytical component of the instrument that would alter the relationship of output signal to in-stack PM concentration.
- (ii) To determine continuous compliance, you must use the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps) on a 30 operating day rolling average basis, updated at the end of each new kiln operating day.
- (iii) For any exceedance of the 30 process operating day PM CPMS average value from the established operating parameter





limit, you must:

- (A) Within 48 hours of the exceedance, visually inspect the APCD;
- (B) If inspection of the APCD identifies the cause of the exceedance, take corrective action as soon as possible and return the PM CPMS measurement to within the established value; and
- (C) Within 30 days of the exceedance or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify or re-establish the PM CPMS operating limit within 45 days. You are not required to conduct additional testing for any exceedances that occur between the time of the original exceedance and the PM emissions compliance test required under this paragraph.
- (iv) PM CPMS exceedances leading to more than four required performance tests in a 12-month process operating period (rolling monthly) constitute a presumptive violation of this subpart.
- (2) [Reserved]
- (c) [Reserved]
- (d) Clinker production monitoring requirements. In order to determine clinker production, you must:
- (1) Determine hourly clinker production by one of two methods:
- (i) Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates in tonsmass per hour of the amount of clinker produced. The system of measuring hourly clinker production must be maintained within ±5 percent accuracy, or
- (ii) Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates in tonsmass per hour of the amount of feed to the kiln. The system of measuring feed must be maintained within ±5 percent accuracy. Calculate your hourly clinker production rate using a kiln-specific feed to clinker ratio based on reconciled clinker production determined for accounting purposes and recorded feed rates. Update this ratio monthly. Note that if this ratio changes at clinker reconciliation, you must use the new ratio going forward, but you do not have to retroactively change clinker production rates previously estimated.
- (iii) [Reserved]
- (2) Determine, record, and maintain a record of the accuracy of the system of measuring hourly clinker production (or feed mass flow if applicable) before initial use (for new sources) or by the effective compliance date of this rule (for existing sources). During each quarter of source operation, you must determine, record, and maintain a record of the ongoing accuracy of the system of measuring hourly clinker production (or feed mass flow).
- (3) If you measure clinker production directly, record the daily clinker production rates; if you measure the kiln feed rates and calculate clinker production, record the hourly kiln feed and clinker production rates.
- (4) Develop an emissions monitoring plan in accordance with paragraphs (p)(1) through (p)(4) of this section.

(e) [Reserved]

- (f) Opacity monitoring requirements. If you are subject to a limitation on opacity under § 63.1345, you must conduct required opacity monitoring in accordance with the provisions of paragraphs (f)(1)(i) through (vii) of this section and in accordance with your monitoring plan developed under § 63.1350(p). You must also develop an opacity monitoring plan in accordance with paragraphs (p)(1) through (4) and paragraph (o)(5), if applicable, of this section.
- (1)(i) You must conduct a monthly 10-minute visible emissions test of each affected source in accordance with Method 22 of appendix A-7 to part 60 of this chapter. The performance test must be conducted while the affected source is in operation.
- (ii) If no visible emissions are observed in six consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of performance testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, you must resume performance testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
- (iii) If no visible emissions are observed during the semi-annual test for any affected source, you may decrease the frequency of performance testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual performance test, the owner or operator must resume performance testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
- (iv) If visible emissions are observed during any Method 22 performance test, of appendix A-7 to part 60 of this chapter, you must conduct 30 minutes of opacity observations, recorded at 15-second intervals, in accordance with Method 9 of appendix A-4 to part 60 of this chapter. The Method 9 performance test, of appendix A-4 to part 60 of this chapter, must begin within 1 hour of any observation of visible emissions.
- (v) Any totally enclosed conveying system transfer point, regardless of the location of the transfer point is not required to conduct Method 22 visible emissions monitoring under this paragraph. The enclosures for these transfer points must be operated and maintained as total enclosures on a continuing basis in accordance with the facility operations and





maintenance plan.

- (vi) If any partially enclosed or unenclosed conveying system transfer point is located in a building, you must conduct a Method 22 performance test, of appendix A-7 to part 60 of this chapter, according to the requirements of paragraphs (f)(1)(i) through (iv) of this section for each such conveying system transfer point located within the building, or for the building itself, according to paragraph (f)(1)(vii) of this section.
- (vii) If visible emissions from a building are monitored, the requirements of paragraphs (f)(1)(i) through (f)(1)(iv) of this section apply to the monitoring of the building, and you must also test visible emissions from each side, roof, and vent of the building for at least 10 minutes.
- (2)(i) For a raw mill or finish mill, you must monitor opacity by conducting daily visible emissions observations of the mill sweep and air separator PM control devices (PMCD) of these affected sources in accordance with the procedures of Method 22 of appendix A-7 to part 60 of this chapter. The duration of the Method 22 performance test must be 6 minutes.
- (ii) Within 24 hours of the end of the Method 22 performance test in which visible emissions were observed, the owner or operator must conduct a follow up Method 22 performance test of each stack from which visible emissions were observed during the previous Method 22 performance test.
- (iii) If visible emissions are observed during the follow-up Method 22 performance test required by paragraph (f)(2)(ii) of this section from any stack from which visible emissions were observed during the previous Method 22 performance test required by paragraph (f)(2)(i) of the section, you must then conduct an opacity test of each stack from which emissions were observed during the follow up Method 22 performance test in accordance with Method 9 of appendix A-4 to part 60 of this chapter. The duration of the Method 9 test must be 30 minutes.
- (3) If visible emissions are observed during any Method 22 visible emissions test conducted under paragraphs (f)(1) or (2) of this section, you must initiate, within one-hour, the corrective actions specified in your operation and maintenance plan as required in § 63.1347.
- (4) The requirements under paragraph (f)(2) of this section to conduct daily Method 22 testing do not apply to any specific raw mill or finish mill equipped with a COMS or BLDS.
- (i) If the owner or operator chooses to install a COMS in lieu of conducting the daily visible emissions testing required under paragraph (f)(2) of this section, then the COMS must be installed at the outlet of the PM control device of the raw mill or finish mill and the COMS must be installed, maintained, calibrated, and operated as required by the general provisions in subpart A of this part and according to PS-1 of appendix B to part 60 of this chapter.
- (ii) If you choose to install a BLDS in lieu of conducting the daily visible emissions testing required under paragraph (f)(2) of this section, the requirements in paragraphs (m)(1) through (m)(4), (m)(10) and (m)(11) of this section apply.
- (g) D/F monitoring requirements. If you are subject to an emissions limitation on D/F emissions, you must comply with the monitoring requirements of paragraphs (g)(1) through (5) and (m)(1) through (4) of this section to demonstrate continuous compliance with the D/F emissions standard. You must also develop an emissions monitoring plan in accordance with paragraphs (p)(1) through (4) of this section.
- (1) You must install, calibrate, maintain, and continuously operate a CMS to record the temperature of the exhaust gases from the kiln and alkali bypass, if applicable, at the inlet to, or upstream of, the kiln and/or alkali bypass PMCDs.
- (i) The temperature recorder response range must include zero and 1.5 times the average temperature established according to the requirements in § 63.1349(b)(3)(iv).
- (ii) The calibration reference for the temperature measurement must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.
- (iii) The calibration of all thermocouples and other temperature sensors must be verified at least once every three months.
- (2) You must monitor and continuously record the temperature of the exhaust gases from the kiln and alkali bypass, if applicable, at the inlet to the kiln and/or alkali bypass PMCD.
- (3) The required minimum data collection frequency must be one minute.
- (4) Every hour, record the calculated rolling three-hour average temperature using the average of 180 successive one-minute average temperatures. See § 63.1349(b)(3).
- (5) When the operating status of the raw mill of the in-line kiln/raw mill is changed from off to on or from on to off, the calculation of the three-hour rolling average temperature must begin anew, without considering previous recordings.
- (h) Monitoring requirements for sources using sorbent injection. If you are subject to an operating limit on D/F emissions that employs carbon injection as an emission control technique, you must comply with the additional monitoring requirements of paragraphs (h)(1) and (h)(2) and paragraphs (m)(1) through (m)(4) and (m)(9) of this section. You must also develop an emissions monitoring plan in accordance with paragraphs (p)(1) through (p)(4) of this section.
- (1) Install, operate, calibrate, and maintain a continuous monitor to record the rate of activated carbon injection. The accuracy of the rate measurement device must be ±1 percent of the rate being measured.
- (i) Verify the calibration of the device at least once every three months.





- (ii) Each hour, calculate the three-hour rolling average activated carbon injection rate for the previous three hours of process operation. See § 63.1349(b)(3).
- (iii) When the operating status of the raw mill of the in-line kiln/raw mill is changed from off to on or from on to off, the calculation of the three-hour rolling average activated carbon injection rate must begin anew, without considering previous recordings.
- (2)(i) Install, operate, calibrate, and maintain a continuous monitor to record the activated carbon injection system carrier gas parameter (either the carrier gas flow rate or the carrier gas pressure drop) established during the D/F performance test in accordance with § 63.1349(b)(3).
- (ii) Each hour, calculate the 3-hour rolling average of the selected parameter value for the previous 3 hours of process operation using all of the one-minute data available (i.e., the CMS is not out-of-control).
- (i) THC Monitoring Requirements. If you are subject to an emissions limitation on THC emissions, you must comply with the monitoring requirements of paragraphs (i)(1) and (i)(2) and (m)(1) through (m)(4) of this section. You must also develop an emissions monitoring plan in accordance with paragraphs (p)(1) through (p)(4) of this section.
- (1) You must install, operate, and maintain a THC continuous emission monitoring system in accordance with Performance Specification 8 or Performance Specification 8A of appendix B to part 60 of this chapter and comply with all of the requirements for continuous monitoring systems found in the general provisions, subpart A of this part. The owner or operator must operate and maintain each CEMS according to the quality assurance requirements in Procedure 1 of appendix F in part 60 of this chapter. For THC continuous emission monitoring systems certified under Performance Specification 8A, conduct the relative accuracy test audits required under Procedure 1 in accordance with Performance Specification 8, Sections 8 and 11 using Method 25A in appendix A to 40 CFR part 60 as the reference method; the relative accuracy must meet the criteria of Performance Specification 8, Section 13.2.
- (2) Performance tests on alkali bypass and coal mill stacks must be conducted using Method 25A in appendix A to 40 CFR part 60 and repeated every 30 months.
- (j) Total organic HAP monitoring requirements. If you are complying with the total organic HAP emissions limits, you must continuously monitor THC according to paragraphs (i)(1) and (2) of this section or in accordance with Performance Specification 8 or Performance Specification 8A of appendix B to part 60 of this chapter and comply with all of the requirements for continuous monitoring systems found in the general provisions, subpart A of this part. You must operate and maintain each CEMS according to the quality assurance requirements in Procedure 1 of appendix F in part 60 of this chapter. You must also develop an emissions monitoring plan in accordance with paragraphs (p)(1) through (4) of this section.
- (k) Mercury monitoring requirements. If you have a kiln subject to an emissions limitation on mercury emissions, you must install and operate a mercury continuous emissions monitoring system (Hg CEMS) in accordance with Performance Specification 12A (PS 12A) of appendix B to part 60 of this chapter or an integrated sorbent trap monitoring system in accordance with Performance Specification 12B (PS 12B) of appendix B to part 60 of this chapter. You must monitor mercury continuously according to paragraphs (k)(1) through (5) of this section. You must also develop an emissions monitoring plan in accordance with paragraphs (p)(1) through (4) of this section.
- (1) You must use a span value for any Hg CEMS that represents the mercury concentration corresponding to approximately two times the emissions standard and may be rounded up to the nearest multiple of $5 \mu g/m 3$ of total mercury or higher level if necessary to include Hg concentrations which may occur (excluding concentrations during in-line raw "mill off" operation). As specified in PS 12A, Section 6.1.1, the data recorder output range must include the full range of expected Hg concentration values which would include those expected during "mill off" conditions. Engineering judgments made and calculations used to determine the corresponding span concentration from the emission standard shall be documented in the site-specific monitoring plan and associated records.
- (2) In order to quality assure data measured above the span value, you must use one of the four options in paragraphs (k)(2)(i) through (iv) of this section.
- (i) Include a second span that encompasses the Hg emission concentrations expected to be encountered during "mill off" conditions. This second span may be rounded to a multiple of 5 μ g/m 3 of total mercury. The requirements of PS 12A, shall be followed for this second span with the exception that a RATA with the mill off is not required.
- (ii) Quality assure any data above the span value by proving instrument linearity beyond the span value established in paragraph (k)(1) of this section using the following procedure. Conduct a weekly "above span linearity" calibration challenge of the monitoring system using a reference gas with a certified value greater than your highest expected hourly concentration or greater than 75 percent of the highest measured hourly concentration. The "above span" reference gas must meet the requirements of PS 12A, Section 7.1 and must be introduced to the measurement system at the probe. Record and report the results of this procedure as you would for a daily calibration. The "above span linearity" challenge is





successful if the value measured by the Hg CEMS falls within 10 percent of the certified value of the reference gas. If the value measured by the Hg CEMS during the above span linearity challenge exceeds ±10 percent of the certified value of the reference gas, the monitoring system must be evaluated and repaired and a new "above span linearity" challenge met before returning the Hg CEMS to service, or data above span from the Hg CEMS must be subject to the quality assurance procedures established in paragraph (k)(2)(iii) of this section. In this manner all hourly average values exceeding the span value measured by the Hg CEMS during the week following the above span linearity challenge when the CEMS response exceeds ±20 percent of the certified value of the reference gas must be normalized using Equation 22.

- (iii) Quality assure any data above the span value established in paragraph (k)(1) of this section using the following procedure. Any time two consecutive 1-hour average measured concentrations of Hg exceeds the span value you must, within 24 hours before or after, introduce a higher, "above span" Hg reference gas standard to the Hg CEMS. The "above span" reference gas must meet the requirements of PS 12A, Section 7.1, must target a concentration level between 50 and 150 percent of the highest expected hourly concentration measured during the period of measurements above span, and must be introduced at the probe. While this target represents a desired concentration range that is not always achievable in practice, it is expected that the intent to meet this range is demonstrated by the value of the reference gas. Expected values may include "above span" calibrations done before or after the above span measurement period. Record and report the results of this procedure as you would for a daily calibration. The "above span" calibration is successful if the value measured by the Hg CEMS is within 20 percent of the certified value of the reference gas. If the value measured by the Hg CEMS exceeds 20 percent of the certified value of the reference gas, then you must normalize the one-hour average stack gas values measured above the span during the 24-hour period preceding or following the "above span" calibration for reporting based on the Hg CEMS response to the reference gas as shown in Equation 22. Only one "above span" calibration is needed per 24-hour period.
- (3) You must operate and maintain each Hg CEMS or an integrated sorbent trap monitoring system according to the quality assurance requirements in Procedure 5 of appendix F to part 60 of this chapter. During the RATA of integrated sorbent trap monitoring systems required under Procedure 5, you may apply the appropriate exception for sorbent trap section 2 breakthrough in (k)(3)(i) through (iv) of this section:
- (i) For stack Hg concentrations >1 μg/dscm, =10% of section 1 mass;
- (ii) For stack Hg concentrations =1 μ g/dscm and >0.5 μ g/dscm, =20% of section 1 mass;
- (iii) For stack Hg concentrations =0.5 $\mu g/dscm$ and >0.1 $\mu g/dscm$, =50% of section 1 mass; and
- (iv) For stack Hg concentrations =0.1 µg/dscm, no breakthrough criterion assuming all other QA/QC specifications are met.
- (4) Relative accuracy testing of mercury monitoring systems under PS 12A, PS 12B, or Procedure 5 must be conducted at normal operating conditions. If a facility has an inline raw mill, the testing must occur with the raw mill on.
- (5) If you use a Hg CEMS or an integrated sorbent trap monitoring system, you must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the exhaust gas flow rate to the atmosphere according to the requirements in paragraphs (n)(1) through (10) of this section. If kiln gases are diverted through an alkali bypass or to a coal mill and exhausted through separate stacks, you must account for the mercury emitted from those stacks by following the procedures in (k)(5)(i) through (iv) of this section:
- (i) Develop a mercury hourly mass emissions rate by conducting performance tests annually, within 11 to 13 calendar months after the previous performance test, using Method 29, or Method 30B, to measure the concentration of mercury in the gases exhausted from the alkali bypass and coal mill.
- (ii) On a continuous basis, determine the mass emissions of mercury in lb/hr from the alkali bypass and coal mill exhausts by using the mercury hourly emissions rate and the exhaust gas flow rate to calculate hourly mercury emissions in lb/hr.
- (iii) Sum the hourly mercury emissions from the kiln, alkali bypass and coal mill to determine total mercury emissions. Using hourly clinker production, calculate the hourly emissions rate in pounds per ton of clinker to determine your 30 day rolling average.
- (iv) If mercury emissions from the coal mill and alkali bypass are below the method detection limit for two consecutive annual performance tests, you may reduce the frequency of the performance tests of coal mills and alkali bypasses to once every 30 months. If the measured mercury concentration exceeds the method detection limit, you must revert to testing annually until two consecutive annual tests are below the method detection limit.
- (6) If you operate an integrated sorbent trap monitoring system conforming to PS 12B, you may use a monitoring period at least 24 hours but no longer than 168 hours in length. You should use a monitoring period that is a multiple of 24 hours (except during relative accuracy testing as allowed in PS 12B).
- (I) HCI Monitoring Requirements. If you are subject to an emissions limitation on HCI emissions in § 63.1343, you must monitor HCI emissions continuously according to paragraph (I)(1) or (2) and paragraphs (m)(1) through (4) of this section or, if your kiln is controlled using a wet or dry scrubber or tray tower, you alternatively may parametrically monitor SO2 emissions continuously according to paragraph (I)(3) of this section. You must also develop an emissions monitoring plan in accordance with paragraphs (p)(1) through (4) of this section.





- (1) If you monitor compliance with the HCI emissions limit by operating an HCI CEMS, you must do so in accordance with Performance Specification (PS) 15 or PS 18 of appendix B to part 60 of this chapter, or, upon promulgation, in accordance with any other performance specification for HCI CEMS in appendix B to part 60 of this chapter. You must operate, maintain, and quality assure a HCI CEMS installed and certified under PS 15 according to the quality assurance requirements in Procedure 1 of appendix F to part 60 of this chapter except that the Relative Accuracy Test Audit requirements of Procedure 1 must be replaced with the validation requirements and criteria of sections 11.1.1 and 12.0 of PS 15. If you choose to install and operate an HCI CEMS in accordance with PS 18, you must operate, maintain, and quality assure the HCI CEMS using the associated Procedure 6 of appendix F to part 60 of this chapter. For any performance specification that you use, you must use Method 321 of appendix A to this part as the reference test method for conducting relative accuracy testing. The span value and calibration requirements in paragraphs (I)(1)(i) and (ii) of this section apply to HCI CEMS other than those installed and certified under PS 15 or PS 18.
- (i) You must use a measurement span value for any HCI CEMS of 0-10 ppmww unless the monitor is installed on a kiln without an inline raw mill. Kilns without an inline raw mill may use a higher span value sufficient to quantify all expected emissions concentrations. The HCI CEMS data recorder output range must include the full range of expected HCI concentration values which would include those expected during "mill off" conditions. The corresponding data recorder range shall be documented in the site-specific monitoring plan and associated records.
- (ii) In order to quality assure data measured above the span value, you must use one of the three options in paragraphs (I)(1)(ii)(A) through (C) of this section.
- (A) Include a second span that encompasses the HCI emission concentrations expected to be encountered during "mill off" conditions. This second span may be rounded to a multiple of 5 ppm of total HCI. The requirements of the appropriate HCI monitor performance specification shall be followed for this second span with the exception that a RATA with the mill off is not required.
- (B) Quality assure any data above the span value by proving instrument linearity beyond the span value established in paragraph (I)(1)(i) of this section using the following procedure. Conduct a weekly "above span linearity" calibration challenge of the monitoring system using a reference gas with a certified value greater than your highest expected hourly concentration or greater than 75 percent of the highest measured hourly concentration. The "above span" reference gas must meet the requirements of the applicable performance specification and must be introduced to the measurement system at the probe. Record and report the results of this procedure as you would for a daily calibration. The "above span linearity" challenge is successful if the value measured by the HCI CEMS falls within 10 percent of the certified value of the reference gas. If the value measured by the HCI CEMS during the above span linearity challenge exceeds 10 percent of the certified value of the reference gas, the monitoring system must be evaluated and repaired and a new "above span linearity" challenge met before returning the HCI CEMS to service, or data above span from the HCI CEMS must be subject to the quality assurance procedures established in paragraph (I)(1)(ii)(D) of this section. Any HCI CEMS above span linearity challenge response exceeding ±20 percent of the certified value of the reference gas requires that all above span hourly averages during the week following the above span linearity challenge must be normalized using Equation 23.
- (C) Quality assure any data above the span value established in paragraph (I)(1)(i) of this section using the following procedure. Any time two consecutive one-hour average measured concentration of HCI exceeds the span value you must, within 24 hours before or after, introduce a higher, "above span" HCI reference gas standard to the HCI CEMS. The "above span" reference gas must meet the requirements of the applicable performance specification and target a concentration level between 50 and 150 percent of the highest expected hourly concentration measured during the period of measurements above span, and must be introduced at the probe. While this target represents a desired concentration range that is not always achievable in practice, it is expected that the intent to meet this range is demonstrated by the value of the reference gas. Expected values may include above span calibrations done before or after the above-span measurement period. Record and report the results of this procedure as you would for a daily calibration. The "above span" calibration is successful if the value measured by the HCI CEMS is within 20 percent of the certified value of the reference gas, then you must normalize the stack gas values measured above span as described in paragraph (I)(1)(ii)(D) of this section.
- (D) In the event that the "above span" calibration is not successful (i.e., the HCI CEMS measured value is not within 20 percent of the certified value of the reference gas), then you must normalize the one-hour average stack gas values measured above the span during the 24-hour period preceding or following the `above span' calibration for reporting based on the HCI CEMS response to the reference gas as shown in Equation 23:

Only one "above span" calibration is needed per 24-hour period.

- (2) Install, operate, and maintain a CMS to monitor wet scrubber or tray tower parameters, as specified in paragraphs (m)(5) and (7) of this section, and dry scrubber, as specified in paragraph (m)(9) of this section.
- (3) If the source is equipped with a wet or dry scrubber or tray tower, and you choose to monitor SO2 emissions, monitor SO2 emissions continuously according to the requirements of § 60.63(e) and (f) of this chapter. If SO2 levels increase above the 30-day rolling average SO2 operating limit established during your performance test by 10 percent or more, you





must:

37-00013G

- (i) As soon as possible but no later than 30 days after you exceed the established SO2 value conduct an inspection and take corrective action to return the SO2 emissions to within the operating limit; and
- (ii) Within 90 days of the exceedance or at the time of the next compliance test, whichever comes first, conduct an HCl emissions compliance test to determine compliance with the HCl emissions limit and to verify or re-establish the SO2 CEMS operating limit.
- (4) If you monitor continuous performance through the use of an HCI CPMS according to paragraphs (b)(6)(v)(A) through (H) of § 63.1349, for any exceedance of the 30 kiln operating day HCI CPMS average value from the established operating limit, you must:
- (i) Within 48 hours of the exceedance, visually inspect the APCD;
- (ii) If inspection of the APCD identifies the cause of the exceedance, take corrective action as soon as possible and return the HCI CPMS measurement to within the established value; and
- (iii) Within 30 days of the exceedance or at the time of the annual compliance test, whichever comes first, conduct an HCI emissions compliance test to determine compliance with the HCI emissions limit and to verify or reestablish the HCI CPMS operating limit within 45 days. You are not required to conduct additional testing for any exceedances that occur between the time of the original exceedance and the HCI emissions compliance test required under this paragraph.
- (iv) HCI CPMS exceedances leading to more than four required performance tests in a 12-month process operating period (rolling monthly) constitute a presumptive violation of this subpart.
- (m) Parameter monitoring requirements. If you have an operating limit that requires the use of a CMS, you must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the procedures in paragraphs (m)(1) through (4) of this section by the compliance date specified in § 63.1351. You must also meet the applicable specific parameter monitoring requirements in paragraphs (m)(5) through (11) that are applicable to you.
- (1) The CMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data.
- (2) You must conduct all monitoring in continuous operation at all times that the unit is operating.
- (3) Determine the 1-hour block average of all recorded readings.
- (4) Record the results of each inspection, calibration, and validation check.
- (5) Liquid flow rate monitoring requirements. If you have an operating limit that requires the use of a flow measurement device, you must meet the requirements in paragraphs (m)(5)(i) through (iv) of this section.
- (i) Locate the flow sensor and other necessary equipment in a position that provides a representative flow.
- (ii) Use a flow sensor with a measurement sensitivity of 2 percent of the flow rate.
- (iii) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.
- (iv) Conduct a flow sensor calibration check at least semiannually.
- (6) Specific pressure monitoring requirements. If you have an operating limit that requires the use of a pressure measurement device, you must meet the requirements in paragraphs (m)(6)(i) through (vi) of this section.
- (i) Locate the pressure sensor(s) in a position that provides a representative measurement of the pressure.
- (ii) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.
- (iii) Use a gauge with a minimum tolerance of 1.27 centimeters of water or a transducer with a minimum tolerance of 1 percent of the pressure range.
- (iv) Check pressure tap pluggage daily.
- (v) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.
- (vi) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.
- (7) Specific pH monitoring requirements. If you have an operating limit that requires the use of a pH measurement device, you must meet the requirements in paragraphs (m)(7)(i) through (iii) of this section.
- (i) Locate the pH sensor in a position that provides a representative measurement of wet scrubber or tray tower effluent pH.
- (ii) Ensure the sample is properly mixed and representative of the fluid to be measured.
- (iii) Check the pH meter's calibration on at least two points every 8 hours of process operation.
- (8) [Reserved]
- (9) Mass flow rate (for sorbent injection) monitoring requirements. If you have an operating limit that requires the use of equipment to monitor sorbent injection rate (e.g., weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (m)(9)(i) through (iii) of this section. These requirements also apply to the sorbent injection equipment of a dry scrubber.
- (i) Locate the device in a position(s) that provides a representative measurement of the total sorbent injection rate.
- (ii) Install and calibrate the device in accordance with manufacturer's procedures and specifications.
- (iii) At least annually, calibrate the device in accordance with the manufacturer's procedures and specifications.



37-00013G



SECTION E. Source Group Plan Approval Restrictions.

- (10) Bag leak detection monitoring requirements. If you elect to use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate a BLDS as specified in paragraphs (m)(10)(i) through (viii) of this section.
- (i) You must install and operate a BLDS for each exhaust stack of the fabric filter.
- (ii) Each BLDS must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA-454/R-98-015, September 1997.
- (iii) The BLDS must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 or fewer milligrams per actual cubic meter.
- (iv) The BLDS sensor must provide output of relative or absolute PM loadings.
- (v) The BLDS must be equipped with a device to continuously record the output signal from the sensor.
- (vi) The BLDS must be equipped with an alarm system that will alert an operator automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located such that the alert is detected and recognized easily by an operator.
- (vii) For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a BLDS must be installed in each baghouse compartment or cell.
- (viii) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.
- (11) For each BLDS, the owner or operator must initiate procedures to determine the cause of every alarm within 8 hours of the alarm. The owner or operator must alleviate the cause of the alarm within 24 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:
- (i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;
- (ii) Sealing off defective bags or filter media;
- (iii) Replacing defective bags or filter media or otherwise repairing the control device;
- (iv) Sealing off a defective fabric filter compartment;
- (v) Cleaning the BLDS probe or otherwise repairing the BLDS; or
- (vi) Shutting down the process producing the PM emissions.
- (n) Continuous Flow Rate Monitoring System. You must install, operate, calibrate, and maintain instruments, according to the requirements in paragraphs (n)(1) through (10) of this section, for continuously measuring and recording the stack gas flow rate to allow determination of the pollutant mass emissions rate to the atmosphere from sources subject to an emissions limitation that has a pounds per ton of clinker unit and that is required to be monitored by a CEMS.
- (1) You must install each sensor of the flow rate monitoring system in a location that provides representative measurement of the exhaust gas flow rate at the sampling location of the mercury CEMS, taking into account the manufacturer's recommendations. The flow rate sensor is that portion of the system that senses the volumetric flow rate and generates an output proportional to that flow rate.
- (2) The flow rate monitoring system must be designed to measure the exhaust flow rate over a range that extends from a value of at least 20 percent less than the lowest expected exhaust flow rate to a value of at least 20 percent greater than the highest expected exhaust flow rate.
- (3) [Reserved]

- (4) The flow rate monitoring system must be equipped with a data acquisition and recording system that is capable of recording values over the entire range specified in paragraph (n)(2) of this section.
- (5) The signal conditioner, wiring, power supply, and data acquisition and recording system for the flow rate monitoring system must be compatible with the output signal of the flow rate sensors used in the monitoring system.
- (6) The flow rate monitoring system must be designed to complete a minimum of one cycle of operation for each successive 15-minute period.
- (7) The flow rate sensor must have provisions to determine the daily zero and upscale calibration drift (CD) (see sections
- 3.1 and 8.3 of Performance Specification 2 in appendix B to Part 60 of this chapter for a discussion of CD). (i) Conduct the CD tests at two reference signal levels, zero (e.g., 0 to 20 percent of span) and upscale (e.g., 50 to 70
- percent of span).

 (ii) The absolute value of the difference between the flow monitor response and the reference signal must be equal to
- (ii) The absolute value of the difference between the flow monitor response and the reference signal must be equal to or less than 3 percent of the flow monitor span.
- (8) You must perform an initial relative accuracy test of the flow rate monitoring system according to Section 8.2 of Performance Specification 6 of appendix B to part 60 of the chapter with the exceptions in paragraphs (n)(8)(i) and (n)(8)(ii) of this section.
- (i) The relative accuracy test is to evaluate the flow rate monitoring system alone rather than a continuous emission rate



monitoring system.

- (ii) The relative accuracy of the flow rate monitoring system shall be no greater than 10 percent of the mean value of the reference method data.
- (9) You must verify the accuracy of the flow rate monitoring system at least once per year by repeating the relative accuracy test specified in paragraph (n)(8).
- (10) You must operate the flow rate monitoring system and record data during all periods of operation of the affected facility including periods of startup, shutdown, and malfunction, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments).
- (o) Alternate monitoring requirements approval. You may submit an application to the Administrator for approval of alternate monitoring requirements to demonstrate compliance with the emission standards of this subpart subject to the provisions of paragraphs (o)(1) through (6) of this section.
- (1) The Administrator will not approve averaging periods other than those specified in this section, unless you document, using data or information, that the longer averaging period will ensure that emissions do not exceed levels achieved during the performance test over any increment of time equivalent to the time required to conduct three runs of the performance test.
- (2) If the application to use an alternate monitoring requirement is approved, you must continue to use the original monitoring requirement until approval is received to use another monitoring requirement.
- (3) You must submit the application for approval of alternate monitoring requirements no later than the notification of performance test. The application must contain the information specified in paragraphs (o)(3)(i) through (iii) of this section:
- (i) Data or information justifying the request, such as the technical or economic infeasibility, or the impracticality of using the required approach;
- (ii) A description of the proposed alternative monitoring requirement, including the operating parameter to be monitored, the monitoring approach and technique, the averaging period for the limit, and how the limit is to be calculated; and
- (iii) Data or information documenting that the alternative monitoring requirement would provide equivalent or better assurance of compliance with the relevant emission standard.
- (4) The Administrator will notify you of the approval or denial of the application within 90 calendar days after receipt of the original request, or within 60 calendar days of the receipt of any supplementary information, whichever is later. The Administrator will not approve an alternate monitoring application unless it would provide equivalent or better assurance of compliance with the relevant emission standard. Before disapproving any alternate monitoring application, the Administrator will provide:
- (i) Notice of the information and findings upon which the intended disapproval is based; and
- (ii) Notice of opportunity for you to present additional supporting information before final action is taken on the application. This notice will specify how much additional time is allowed for you to provide additional supporting information.
- (5) You are responsible for submitting any supporting information in a timely manner to enable the Administrator to consider the application prior to the performance test. Neither submittal of an application, nor the Administrator's failure to approve or disapprove the application relieves you of the responsibility to comply with any provision of this subpart.
- (6) The Administrator may decide at any time, on a case-by-case basis that additional or alternative operating limits, or alternative approaches to establishing operating limits, are necessary to demonstrate compliance with the emission standards of this subpart.
- (p) Development and submittal (upon request) of monitoring plans. If you demonstrate compliance with any applicable emissions limit through performance stack testing or other emissions monitoring, you must develop a site-specific monitoring plan according to the requirements in paragraphs (p)(1) through (4) of this section. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under paragraph (o) of this section and § 63.8(f). If you use a BLDS, you must also meet the requirements specified in paragraph (p)(5) of this section.
- (1) For each CMS required in this section, you must develop, and submit to the permitting authority for approval upon request, a site-specific monitoring plan that addresses paragraphs (p)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan, if requested, at least 30 days before your initial performance evaluation of your CMS.
- (i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);
- (ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and
- (iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations).
- (2) In your site-specific monitoring plan, you must also address paragraphs (p)(2)(i) through (iii) of this section.



- (i) Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1), (c)(3), and (c)(4)(ii);
- (ii) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d); and
- (iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c), (e)(1), and (e)(2)(i).
- (3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.
- (4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.
- (5) BLDS monitoring plan. Each monitoring plan must describe the items in paragraphs (p)(5)(i) through (v) of this section. At a minimum, you must retain records related to the site-specific monitoring plan and information discussed in paragraphs (m)(1) through (4), (m)(10) and (11) of this section for a period of 5 years, with at least the first 2 years on-site;
- (i) Installation of the BLDS;
- (ii) Initial and periodic adjustment of the BLDS, including how the alarm set-point will be established;
- (iii) Operation of the BLDS, including quality assurance procedures;
- (iv) How the BLDS will be maintained, including a routine maintenance schedule and spare parts inventory list;
- (v) How the BLDS output will be recorded and stored.

[75 FR 55059, Sept. 9, 2010, as amended at 76 FR 2836, Jan. 18, 2011; 78 FR 10048, Feb. 12, 2013; 80 FR 44788, July 27, 2015; 80 FR 54729, Sept. 11, 2015; 81 FR 48361, July 25, 2016; 82 FR 28565, June 23, 2017; 82 FR 39673, Aug. 22, 2017; 83 FR 35133, July 25, 2018]

IV. RECORDKEEPING REQUIREMENTS.

043 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Compliance with the NH3 emissions limitation shall be determined by initial testing and then SNCR system design optimization.

044 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall keep records of clinker production (tons/hr) sufficiently to determine compliance with the NOx and VOC LAER emission limits along with other pollutants with emission limits specified in pounds/ton of clinker.

045 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall comply with the recordkeeping requirements established in 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources), the "Record Keeping and Reporting" requirements in Revision No. 8 of the Department's Continuous Source Monitoring Manual (274-0300-001), and the recordkeeping requirements established in 40 CFR §§60.7 and 60.13, 40 CFR Part 60 Subparts A and F, 40 CFR 63 Subparts A and LLL, and Part 75 Subpart F, as applicable. (Additional authority for this condition is derived from 40 CFR Part 60 Subparts A and F, 40 CFR 63 Subparts A and LLL, 40 CFR Part 75 Subpart F, and 25 Pa. Code §§139.101(5) and 139.101(12))

Compliance with any subsequently issued revision to the Continuous Source Monitoring Manual will constitute compliance with this permit condition.

046 [25 Pa. Code §129.100]

DEP Auth ID: 1320403

Compliance demonstration and recordkeeping requirements.

Pursuant to 129.100(d), the owner and operator of an air contamination source subject to this section and § § 129.96—129.99 shall keep records to demonstrate compliance with § § 129.96—129.99 in the following manner:

- (1) The records must include sufficient data and calculations to demonstrate that the requirements of § § 129.96—129.99 are met.
- (2) Data or information required to determine compliance shall be recorded and maintained in a time frame consistent with the averaging period of the requirement.

Pursuant to 129.100(e), beginning with the compliance date specified in § 129.97(a), the owner or operator of an air contamination source claiming that the air contamination source is exempt from the applicable NOx emission rate threshold specified in § 129.99(b) and the requirements of § 129.97 based on the air contamination source's potential to emit shall maintain records that demonstrate to the Department or appropriate approved local air pollution control agency





that the air contamination source is not subject to the specified emission rate threshold.

Pursuant to 129.100(f) beginning with the compliance date specified in § 129.97(a), the owner or operator of an air contamination source claiming that the air contamination source is exempt from the applicable VOC emission rate threshold specified in § 129.99(c) and the requirements of § 129.97 based on the air contamination source's potential to emit shall maintain records that demonstrate to the Department or appropriate approved local air pollution control agency that the air contamination source is not subject to the specified emission rate threshold.

Pursuant to 129.100(h), the owner or operator of a Portland cement kiln subject to § 129.97(h) shall maintain a daily operating log for each Portland cement kiln. The record for each kiln must include:

- (1) The total hours of operation.
- (2) The type and quantity of fuel used.
- (3) The quantity of clinker produced.
- (4) The date, time and duration of a start-up, shutdown or malfunction of a Portland cement kiln or emissions monitoring system.

Pursuant to 129.100(i), the records shall be retained by the owner or operator for 5 years and made available to the Department or appropriate approved local air pollution control agency upon receipt of a written request from the Department or appropriate approved local air pollution control agency.

[Authority The provisions of this § 129.100 issued under section 5(a)(1) and (8) of the Air Pollution Control Act (35 P.S. § 4005(a)(1) and (8)). Source The provisions of this § 129.100 adopted April 22, 2016, effective April 23, 2016, 46 Pa.B. 2036; amended August 10, 2018, effective August 11, 2018, 48 Pa.B. 4814. Immediately preceding text appears at serial pages (380517) to (380520).]

047 [25 Pa. Code §145.146.]

Recordkeeping.

DEP Auth ID: 1320403

- (a) The owner or operator of a Portland cement kiln shall maintain an operating log for each Portland cement kiln. The operating log must include the following on a monthly basis:
 - (1) The total hours of operation.
 - (2) The type and quantity of fuel used.
 - (3) The quantity of clinker produced.
- (b) The records maintained by the owner or operator of a Portland cement kiln must include the following:
- (1) Source tests and operating parameters established during the initial source test and subsequent testing.
- (2) The date, time and duration of any start-up, shutdown or malfunction of a Portland cement kiln or emissions monitoring system.
- (3) The date and type of maintenance, repairs or replacements performed on the kilns, control devices and emission monitoring systems.
- (c) The owner or operator of a Portland cement kiln shall maintain the records required under this section onsite for 5 years. The records shall be made available to the Department upon request.

[Authority The provisions of this § 145.146 issued under section 5(a)(1) of the Air Pollution Control Act (35 P. S. § 4005(a)(1)).

Source The provisions of this § 145.146 adopted June 18, 2010, effective June 19, 2010, 40 Pa.B. 3346.]





048 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1355]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Recordkeeping requirements.

- (a) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by § 63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.
- (b) The owner or operator shall maintain records for each affected source as required by § 63.10(b)(2) and (b)(3) of this part; and
- (1) All documentation supporting initial notifications and notifications of compliance status under § 63.9;
- (2) All records of applicability determination, including supporting analyses; and
- (3) If the owner or operator has been granted a waiver under § 63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements.
- (c) In addition to the recordkeeping requirements in paragraph (b) of this section, the owner or operator of an affected source equipped with a continuous monitoring system shall maintain all records required by § 63.10(c).
- (d) [Reserved]
- (e) You must keep records of the daily clinker production rates according to the clinker production monitoring requirements in § 63.1350(d).
- (f) You must keep records of the date, time and duration of each startup or shutdown period for any affected source that is subject to a standard during startup or shutdown that differs from the standard applicable at other times, and the quantity of feed and fuel used during the startup or shutdown period.
- (g)(1) You must keep records of the date, time and duration of each malfunction that causes an affected source to fail to meet an applicable standard; if there was also a monitoring malfunction, the date, time and duration of the monitoring malfunction; the record must list the affected source or equipment, an estimate of the volume of each regulated pollutant emitted over the standard for which the source failed to meet a standard, and a description of the method used to estimate the emissions.
- (2) You must keep records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.1348(d) including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- (h) For each exceedance from an emissions standard or established operating parameter limit, you must keep records of the date, duration and description of each exceedance and the specific actions taken for each exceedance including inspections, corrective actions and repeat performance tests and the results of those actions.

[64 FR 31925, June 14, 1999, as amended at 71 FR 76552, Dec. 20, 2006; 75 FR 55064, Sept. 9, 2010; 78 FR 10053, Feb. 12, 2013; 80 FR 44791, July 27, 2015; 81 FR 48362, July 25, 2016; 83 FR 35135, July 25, 2018]

V. REPORTING REQUIREMENTS.

DEP Auth ID: 1320403

049 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall submit quarterly reports of continuous emission monitoring (CEMS) to the Department in accordance with the requirements established in 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources), [and], the "Record Keeping and Reporting" requirements as established in Revision No. 8 of the Department's Continuous Source Monitoring Manual, 274-0300-001, and the reporting requirements established in 40 CFR 60 Subpart F and 40 CFR Part 63, Subpart LLL.

The Permittee shall report emissions for all periods of unit operation, including startup, shutdown and malfunction.





Initial quarterly reports following system certification shall be submitted to the Department within 35 days following the date upon which the Department notifies the owner or operator, in writing, of the approval of the continuous source monitoring system for use in determining compliance with applicable emission standards.

Subsequent quarterly reports shall be submitted to the Department within 30 days after the end of each calendar quarter.

Failure to submit required reports of continuous emission monitoring within the time periods specified in this Condition, shall constitute violations of this Permit, unless approved in advance by the Department in writing.

050 [25 Pa. Code §145.145.]

Compliance demonstration and reporting requirements.

- (a) By October 31, 2011, and each year thereafter, the owner or operator of a Portland cement kiln subject to § 145.143(b)(2) (relating to standard requirements) shall submit a written report to the Department, in a format approved by the Department, which includes the following:
- (1) The difference between the actual NOx emissions from the kiln during the interval from May 1 through September 30 and the allowable emissions for that period.
- (2) The calculations used to determine the difference in emissions, including the CEMS data and clinker production data used to show compliance with the allowable emission limits in § 145.143(b)(2). The clinker production data must consist of the quantity of clinker, in tons, produced per day for each kiln.
- (b) The owner or operator of a Portland cement kiln shall demonstrate compliance with the standard requirements in § 145.143(b)(2) on one of the following:
- (1) A kiln-by-kiln basis.
- (2) A facility-wide basis.
- (3) A system-wide basis.

[Authority The provisions of this § 145.145 issued under section 5(a)(1) of the Air Pollution Control Act (35 P.S. § 4005(a)(1)). The provisions of this § 145.145 adopted June 18, 2010, effective June 19, 2010, 40 Pa.B. 3346.]

[40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.65] **Subpart F- Standards of Performance for Portland Cement Plants**

Recordkeeping and reporting requirements.

- (a) Each owner or operator required to install a CPMS or CEMS under sections § 60.63(c) through (e) shall submit reports of excess emissions. The content of these reports must comply with the requirements in § 60.7(c). Notwithstanding the provisions of § 60.7(c), such reports shall be submitted semiannually.
- (b) Each owner or operator of facilities subject to the provisions of § 60.63(c) through (e) shall submit semiannual reports of the malfunction information required to be recorded by § 60.7(b). These reports shall include the frequency, duration, and cause of any incident resulting in deenergization of any device controlling kiln emissions or in the venting of emissions directly to the atmosphere.
- (c) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, 42 U.S.C. 7411, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected sources within the State will be relieved of the obligation to comply with this section, provided that they comply with the requirements established by the State.

[78 FR 10035, Feb. 12, 2013]

[40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1353]

DEP PF ID: 246188

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Page 142

Notification requirements.

DEP Auth ID: 1320403

(a) The notification provisions of 40 CFR part 63, subpart A that apply and those that do not apply to owners and operators of



37-00013G



SECTION E. Source Group Plan Approval Restrictions.

affected sources subject to this subpart are listed in Table 1 of this subpart. If any State requires a notice that contains all of the information required in a notification listed in this section, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification.

- (b) Each owner or operator subject to the requirements of this subpart shall comply with the notification requirements in § 63.9 as follows:
- (1) Initial notifications as required by § 63.9(b) through (d). For the purposes of this subpart, a Title V or 40 CFR part 70 permit application may be used in lieu of the initial notification required under § 63.9(b), provided the same information is contained in the permit application as required by § 63.9(b), and the State to which the permit application has been submitted has an approved operating permit program under part 70 of this chapter and has received delegation of authority from the EPA. Permit applications shall be submitted by the same due dates as those specified for the initial notification.
- (2) Notification of performance tests, as required by §§ 63.7 and 63.9(e).
- (3) Notification of opacity and visible emission observations required by \S 63.1349 in accordance with $\S\S$ 63.6(h)(5) and 63.9(f).
- (4) Notification, as required by § 63.9(g), of the date that the continuous emission monitor performance evaluation required by § 63.8(e) is scheduled to begin.
- (5) Notification of compliance status, as required by § 63.9(h).
- (6) Within 48 hours of an exceedance that triggers retesting to establish compliance and new operating limits, notify the appropriate permitting agency of the planned performance tests. The notification requirements of §§ 63.7(b) and 63.9(e) do not apply to retesting required for exceedances under this subpart.

[64 FR 31925, June 14, 1999, as amended at 78 FR 10053, Feb. 12, 2013]

DEP PF ID: 246188

053 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1354]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Reporting requirements.

- (a) The reporting provisions of subpart A of this part that apply and those that do not apply to owners or operators of affected sources subject to this subpart are listed in Table 1 of this subpart. If any State requires a report that contains all of the information required in a report listed in this section, the owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of this section for that report.
- (b) The owner or operator of an affected source shall comply with the reporting requirements specified in § 63.10 of the general provisions of this part 63, subpart A as follows:
- (1) As required by § 63.10(d)(2), the owner or operator shall report the results of performance tests as part of the notification of compliance status.
- (2) As required by § 63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by § 63.1349.
- (3) As required by § 63.10(d)(4), the owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under § 63.6(i) shall submit such reports by the dates specified in the written extension of compliance.
- (4)-(5) [Reserved]

DEP Auth ID: 1320403

- (6) As required by § 63.10(e)(2), the owner or operator shall submit a written report of the results of the performance evaluation for the continuous monitoring system required by § 63.8(e). The owner or operator shall submit the report simultaneously with the results of the performance test.
- (7) As required by § 63.10(e)(2), the owner or operator of an affected source using a continuous opacity monitoring system to determine opacity compliance during any performance test required under § 63.7 and described in § 63.6(d)(6) shall report the results of the continuous opacity monitoring system performance evaluation conducted under § 63.8(e).
- (8) As required by § 63.10(e)(3), the owner or operator of an affected source equipped with a continuous emission monitor shall submit an excess emissions and continuous monitoring system performance report for any event when the continuous monitoring system data indicate the source is not in compliance with the applicable emission limitation or operating parameter limit.
- (9) The owner or operator shall submit a summary report semiannually within 60 days of the reporting period to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/). You must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, you may submit an alternate electronic file consistent with the extensible markup language (XML) schema listed on the CEDRI website (https://www.epa.gov/electronic-reporting-air-

Page 143

DEP Auth ID: 1320403





SECTION E. Source Group Plan Approval Restrictions.

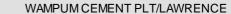
emissions/compliance-and-emissions-data-reporting-interface-cedri), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report the Administrator at the appropriate address listed in § 63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. The excess emissions and summary reports must be submitted no later than 60 days after the end of the reporting period, regardless of the method in which the reports are submitted. The report must contain the information specified in § 63.10(e)(3)(vi). In addition, the summary report shall include:

- (i) All exceedances of maximum control device inlet gas temperature limits specified in § 63.1346(a) and (b);
- (ii) Notification of any failure to calibrate thermocouples and other temperature sensors as required under § 63.1350(g)(1)(iii) of this subpart; and
- (iii) Notification of any failure to maintain the activated carbon injection rate, and the activated carbon injection carrier gas flow rate or pressure drop, as applicable, as required under § 63.1346(c)(2).
- (iv) Notification of failure to conduct any combustion system component inspections conducted within the reporting period as required under § 63.1347(a)(3).
- (v) Any and all failures to comply with any provision of the operation and maintenance plan developed in accordance with § 63.1347(a).
- (vi) For each PM CPMS, HCI, Hg, and THC CEMS, SO2 CEMS, or Hg sorbent trap monitoring system, within 60 days after the reporting periods, you must report all of the calculated 30-operating day rolling average values derived from the CPMS, CEMS, CMS, or Hg sorbent trap monitoring systems.
- (vii) In response to each violation of an emissions standard or established operating parameter limit, the date, duration and description of each violation and the specific actions taken for each violation including inspections, corrective actions and repeat performance tests and the results of those actions.
- (10) If the total continuous monitoring system downtime for any CEM or any CMS for the reporting period is 10 percent or greater of the total operating time for the reporting period, the owner or operator shall submit an excess emissions and continuous monitoring system performance report along with the summary report.
- (11)(i) You must submit the information specified in paragraphs (b)(11)(i)(A) and (B) of this section no later than 60 days following the initial performance test. All reports must be signed by a responsible official.
- (A) The initial performance test data as recorded under § 63.1349(a).

DEP PF ID: 246188

- (B) The values for the site-specific operating limits or parameters established pursuant to § 63.1349(b)(1), (3), (6), (7), and (8), as applicable, and a description, including sample calculations, of how the operating parameters were established during the initial performance test.
- (C) As of December 31, 2011, and within 60 days after the date of completing each performance evaluation or test, as defined in § 63.2, conducted to demonstrate compliance with any standard covered by this subpart, you must submit the relative accuracy test audit data and performance test data, except opacity data, to the EPA by successfully submitting the data electronically via CEDRI and by using the Electronic Reporting Tool (ERT) (see https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert). For any performance evaluations with no corresponding RATA pollutants listed on the ERT website, you must submit the results of the performance evaluation to the Administrator at the appropriate address listed in § 63.13.
- (ii) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g. beta attenuation), span of the instruments primary analytical range, milliamp value equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp signals corresponding to each PM compliance test run.
- (12) All reports required by this subpart not subject to the requirements in paragraphs (b)(9) introductory text and (b)(11)(i) of this section must be sent to the Administrator at the appropriate address listed in § 63.13. The Administrator or the delegated authority may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). The Administrator retains the right to require submittal of reports subject to paragraphs (b)(9) introductory text and (b)(11)(i) of this section in paper format.
- (c) For each failure to meet a standard or emissions limit caused by a malfunction at an affected source, you must report the failure in the semi-annual compliance report required by § 63.1354(b)(9). The report must contain the date, time and duration, and the cause of each event (including unknown cause, if applicable), and a sum of the number of events in the reporting period. The report must list for each event the affected source or equipment, an estimate of the amount of each regulated pollutant emitted over the emission limit for which the source failed to meet a standard, and a description of the method used to estimate the emissions. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 63.1348(d), including actions taken to correct a malfunction.

Page 144





[64 FR 31925, June 14, 1999, as amended at 75 FR 55063, Sept. 9, 2010; 78 FR 10053, Feb. 12, 2013; 80 FR 44790, July 27, 2015; 83 FR 35135, July 25, 2018]

VI. WORK PRACTICE REQUIREMENTS.

054 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall operate the SOx control system (Dry Absorbent) as needed when the source is operating. The source, SO2 CEMS, and SOx control system will be operated in a manner consistent with good air pollution control practices.

The Permittee shall operate the NOx control system (SNCR) as needed when the source is operating. The source, NO2 CEMS, and NOx control system will be operated in a manner consistent with good air pollution control practices.

The Permittee shall operate the PM control system at all times when the source is operating. The source, PM CPMS, and PM control system will be operated in a manner consistent with good air pollution control practices.

The Permittee shall operate the Hg control system (activated carbon) as needed when the source is operating. The source, Hg CEMS or sorbent trap, and Hg control system will be operated in a manner consistent with good air pollution control practices.

055 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall operate the Pyroprocessing System (Source IDs 259, 263, and 264) in accordance with good combustion practices and energy efficient measures to minimize air pollution.

056 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall operate control systems for H2SO4, NH3, and HCI in accordance with good air pollution control practices.

057 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The source and the THC CEMS shall be operated in a manner consistent with good air pollution control practices.

058 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The SNCR system shall be operated as needed when the source is operating. The source and SNCR system shall be operated in accordance with good air pollution control practices. The SNCR system manufacturer's guarantee and specifications shall be used to demonstrate compliance with NH3 (NH3 slip) BAT emissions limitation.

059 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

DATA AVAILABILITY STANDARDS

- 1. CEMS #1, CEMS #2A & 2B, CEMS #3, CEMS #4, CEMS #5A & 5B, CEMS #6, CEMS #7, and CEMS #8.
- a. Data Availability Standard

- (1) In accordance with 25 Pa. Code Section 139.101(12), required monitoring shall, at a minimum, meet one of the following data availability requirements unless otherwise stipulated in this permit or an order issued under Section 4 of the Air Pollution Control Act:
- (i) In each calendar month, at least 90% of the time periods for which an emission standard or an operational parameter applies, shall be valid as set forth in the Quality Assurance section of Revision No. 8 of the Department's Continuous Source Monitoring Manual (274-0300-001).
- (ii) In each calendar quarter, at least 95% of the hours shall be valid as set forth in the Quality Assurance section of Revision No. 8 of the Department's Continuous Source Monitoring Manual (274-0300-001).





(2) For purposes of calculating data availability, "process down" time, as specified in Revision No. 8 of the Department's Continuous Source Monitoring Manual (274-0300-001), shall be considered valid time.

Compliance with any subsequently issued revisions to the Continuous Source Monitoring Manual will constitute compliance with the regulations.

- (3) Emission Standard(s) To Which Data Availability Standard applies:
- NOx: tons/year, lb/ton clinker
- SOX: ppm, tons/year, lb/ton clinker
- CO: tons/year, lb/ton clinker
- Hg: tons/year, lb/MM ton clinker
- THC: ppmvd @7% oxygen, ppmvd for Total HAP, tons/year
- CO2e: ton/ton of clinker
- (4) State the basis for calculation of any multiple-hour averages or sums, and how emissions occurring during exempt periods of startup, shutdown and malfunction are to be treated when calculating averages or sums for periods containing exempt and non-exempt time:
- NOx and SOx averaging times: Based on a 30-operating day rolling average per 40 CFR 60.62. An operating day includes all valid data obtained in any daily 24-hour period during which the kiln operates and excludes any measurements made during the daily 24-hour period when the kiln was not operating.
- Hg and THC Averaging times: Based on a rolling 30 day average per 40 CFR 63.1343. The 30-day period means all operating hours within 30 consecutive kiln operating days excluding periods of start-up and shut-down.
- CO Averaging times: Based on a 30-operating day, rolling average per 25 Pa. Code 127.12b BACT/BAT determination.
- CO2e Averaging times: Based on a rolling 12-month average per 25 Pa. Code 127.12b BACT/BAT determination.

Emissions occurring during applicable exempt periods of operation (including startup, shutdown, and malfunction) are to be excluded, as applicable to each pollutant, but must be included when calculating total mass emissions such as 1-year rolling sum of tons per year emissions.

060 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The clinker cooler is exhausted to the main stack and combined with kiln and raw mill exhaust gases. Compliance with emission limitations will be demonstrated with the main stack continuous monitoring and performance testing of the main stack.

061 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1346]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Operating limits for kilns.

- (a) The owner or operator of a kiln subject to a D/F emissions limitation under §63.1343 must operate the kiln such that the temperature of the gas at the inlet to the kiln PM control device (PMCD) and alkali bypass PMCD, if applicable, does not exceed the applicable temperature limit specified in paragraph (b) of this section. The owner or operator of an in-line kiln/raw mill subject to a D/F emissions limitation under §63.1343 must operate the in-line kiln/raw mill, such that:
- (1) When the raw mill of the in-line kiln/raw mill is operating, the applicable temperature limit for the main in-line kiln/raw mill exhaust, specified in paragraph (b) of this section and established during the performance test when the raw mill was operating, is not exceeded, except during periods of startup and shutdown when the temperature limit may be exceeded by no more than 10 percent.
- (2) When the raw mill of the in-line kiln/raw mill is not operating, the applicable temperature limit for the main in-line kiln/raw mill exhaust, specified in paragraph (b) of this section and established during the performance test when the raw mill was not operating, is not exceeded, except during periods of startup/shutdown when the temperature limit may be exceeded by no more than 10 percent.
- (3) If the in-line kiln/raw mill is equipped with an alkali bypass, the applicable temperature limit for the alkali bypass specified in paragraph (b) of this section and established during the performance test, with or without the raw mill operating, is not exceeded, except during periods of startup/shutdown when the temperature limit may be exceeded by no more than 10 percent.





- (b) The temperature limit for affected sources meeting the limits of paragraph (a) of this section or paragraphs (a)(1) through (a)(3) of this section is determined in accordance with §63.1349(b)(3)(iv).
- (c) For an affected source subject to a D/F emissions limitation under §63.1343 that employs sorbent injection as an emission control technique for D/F control, you must operate the sorbent injection system in accordance with paragraphs (c)(1) and (2) of this section.
- (1) The rolling three-hour average activated sorbent injection rate must be equal to or greater than the sorbent injection rate determined in accordance with §63.1349(b)(3)(vi).
- (2) You must either:

DEP Auth ID: 1320403

- (i) Maintain the minimum activated carbon injection carrier gas flow rate, as a rolling three-hour average, based on the manufacturer's specifications. These specifications must be documented in the test plan developed in accordance with §63.7(c), or
- (ii) Maintain the minimum activated carbon injection carrier gas pressure drop, as a rolling three-hour average, based on the manufacturer's specifications. These specifications must be documented in the test plan developed in accordance with §63.7(c).
- (d) Except as provided in paragraph (e) of this section, for an affected source subject to a D/F emissions limitation under §63.1343 that employs carbon injection as an emission control technique you must specify and use the brand and type of sorbent used during the performance test until a subsequent performance test is conducted, unless the site-specific performance test plan contains documentation of key parameters that affect adsorption and the owner or operator establishes limits based on those parameters, and the limits on these parameters are maintained.
- (e) For an affected source subject to a D/F emissions limitation under §63.1343 that employs carbon injection as an emission control technique you may substitute, at any time, a different brand or type of sorbent provided that the replacement has equivalent or improved properties compared to the sorbent specified in the site-specific performance test plan and used in the performance test. The owner or operator must maintain documentation that the substitute sorbent will provide the same or better level of control as the original sorbent.
- (f) No kiln may use as a raw material or fuel any fly ash where the mercury content of the fly ash has been increased through the use of activated carbon, or any other sorbent, unless the facility can demonstrate that the use of that fly ash will not result in an increase in mercury emissions over baseline emissions (i.e., emissions not using the fly ash). The facility has the burden of proving there has been no emissions increase over baseline. Once the kiln is in compliance with a mercury emissions limit specified in §63.1343, this paragraph no longer applies.
- (g) During periods of startup and shutdown you must meet the requirements listed in (g)(1) through (4) of this section.
- (1) During startup you must use any one or combination of the following clean fuels: natural gas, synthetic natural gas, propane, distillate oil, synthesis gas (syngas), and ultra-low sulfur diesel (ULSD) until the kiln reaches a temperature of 1200 degrees Fahrenheit.
- (2) Combustion of the primary kiln fuel may commence once the kiln temperature reaches 1200 degrees Fahrenheit.
- (3) All dry sorbent and activated carbon systems that control hazardous air pollutants must be turned on and operating at the time the gas stream at the inlet to the baghouse or ESP reaches 300 degrees Fahrenheit (five minute average) during startup. Temperature of the gas stream is to be measured at the inlet of the baghouse or ESP every minute. Such injection systems can be turned off during shutdown. Particulate control and all remaining devices that control hazardous air pollutants should be operational during startup and shutdown.

Page 147

(4) You must keep records as specified in §63.1355 during periods of startup and shutdown.

DEP PF ID: 246188

[75 FR 55054, Sept. 9, 2010, as amended at 78 FR 10039, Feb. 12, 2013; 80 FR 44781, July 27, 2015]



062 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1347]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Operation and maintenance plan requirements.

- (a) You must prepare, for each affected source subject to the provisions of this subpart, a written operations and maintenance plan. The plan must be submitted to the Administrator for review and approval as part of the application for a part 70 permit and must include the following information:
- (1) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emissions limits and operating limits, including fugitive dust control measures for open clinker piles of §§63.1345, and 63.1346. Your operations and maintenance plan must address periods of startup and shutdown.
- (2) Corrective actions to be taken when required by paragraph §63.1350(f)(3);
- (3) Procedures to be used during an inspection of the components of the combustion system of each kiln and each in-line kiln raw mill located at the facility at least once per year.
- (b) Failure to comply with any provision of the operations and maintenance plan developed in accordance with this section is a violation of the standard.

[75 FR 55054, Sept. 9, 2010, as amended at 78 FR 10040, Feb. 12, 2013; 80 FR 44781, July 27, 2015]

VII. ADDITIONAL REQUIREMENTS.

063 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Continuous Emission Monitoring Systems and components must be operated and maintained in accordance with the requirements established in 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources) and the "Quality Assurance" requirements in Revision No. 8 of the Department's Continuous Source Monitoring Manual, 274-0300-001 Compliance with any subsequently issued revision to the Continuous Source Monitoring Manual will constitute compliance with this permit condition.

064 [25 Pa. Code §127.205]

Special permit requirements.

The Department will not issue a plan approval, or an operating permit, or allow continued operations under an existing permit or plan approval unless the applicant demonstrates that the following special requirements are met:

- (1) A new or modified facility subject to this subchapter shall comply with LAER, except as provided in § 127.203a(a)(2) (relating to applicability determination). When a facility is composed of several sources, only sources which are new or which are modified shall be required to implement LAER. In addition, LAER applies to the proposed modification which results in an increase in emissions and to subsequent or previous modifications which result in emissions increases that are directly related to and normally included in the project associated with the proposed modification and which occurred within the contemporaneous period of the proposed emissions increase.
- (i) A project that does not commence construction within 18 months of the date specified in the plan approval shall be reevaluated for its compliance with LAER before the start of construction.
- (ii) A project that discontinues construction for 18 months or more after construction is commenced shall be reevaluated for its compliance with LAER before resuming construction.
- (iii) A project that does not complete construction within the time period specified in the plan approval shall be reevaluated for its compliance with LAER.
- (iv) A project that is constructed in phases shall be reevaluated for its compliance with LAER if there is a delay of greater than 18 months beyond the projected and approved commencement date for each independent phase.
- (2) Each facility located within this Commonwealth which meets the requirements of and is subject to this subchapter, which is owned or operated by the applicant, or by an entity controlling, controlled by or under common control with the





applicant, and which is subject to emissions limitations shall be in compliance, or on a schedule for compliance approved by the Department in a plan approval or permit, with the applicable emissions limitation and standards contained in this article. A responsible official of the applicant shall certify as to the facilities' compliance in writing on a form provided by the Department.

- (3) Each modification to a facility which meets the requirements of and is subject to this subchapter shall offset, in accordance with §§ 127.203, 127.203a and 127.210 (relating to facilities subject to special permit requirements; applicability determination; and offset ratios), the total of the net increase. Emissions offsets shall be required for the entire net emissions increase which occurred over the contemporaneous period except to the extent that emissions offsets or other reductions were previously applied against emissions increases in an earlier applicability determination.
- (4) Each new facility which meets the requirements of and is subject to this subchapter shall offset the potential to emit of that facility with ERCs in accordance with § 127.210.
- (5) For a new or modified facility which meets the requirements of and is subject to this subchapter, an analysis shall be conducted of alternative sites, sizes, production processes and environmental control techniques for the proposed facility, which demonstrates that the benefits of the proposed facility significantly outweigh the environmental and social costs imposed within this Commonwealth as a result of its location, construction or modification.
- (6) In the case of a new or modified facility which is located in a nonattainment area, and within a zone, identified by the EPA Administrator, in consultation with the Secretary of Housing and Urban Development, as a zone to which economic development should be targeted, emissions of a pollutant resulting from the proposed new or modified facility may not cause or contribute to emission levels which exceed the allowance permitted for the pollutant for the area from new or modified facilities in the SIP.
- (7) The Department may determine that the BAT requirements of this chapter are equivalent to BACT or LAER.

065 [25 Pa. Code §129.96]

Applicability

DEP Auth ID: 1320403

DEP PF ID: 246188

- (a) The NOx requirements of this section and § § 129.97—129.100 apply Statewide to the owner and operator of a major NOx emitting facility and the VOC requirements of this section and § § 129.97—129.100 apply Statewide to the owner and operator of a major VOC emitting facility that were in existence on or before July 20, 2012, for which a requirement or emission limitation, or both, has not been established in § § 129.51—129.52c, 129.54—129.69, 129.71—129.73, 129.75, 129.77, 129.101—129.107 and 129.301—129.310.
- (b) The NOx requirements of this section and § § 129.97—129.100 apply Statewide to the owner and operator of a NOx emitting facility and the VOC requirements of this section and § § 129.97—129.100 apply Statewide to the owner and operator of a VOC emitting facility when the installation of a new source or a modification or change in operation of an existing source after July 20, 2012, results in the source or facility meeting the definition of a major NOx emitting facility or a major VOC emitting facility and for which a requirement or an emission limitation, or both, has not been established in § § 129.51—129.52c, 129.54—129.69, 129.71—129.73, 129.75, 129.77, 129.101—129.107 and 129.301—129.310.
- (c) This section and § § 129.97—129.100 do not apply to the owner and operator of a NOx air contamination source located at a major NOx emitting facility that has the potential to emit less than 1 TPY of NOx or a VOC air contamination source located at a major VOC emitting facility that has the potential to emit less than 1 TPY of VOC.
- (d) This section and § § 129.97—129.100 do not apply to the owner and operator of a facility which is not a major NOx emitting facility or a major VOC emitting facility on or before January 1, 2017.

[Authority-The provisions of this § 129.96 issued under section 5(a)(1) and (8) of the Air Pollution Control Act (35 P.S. § 4005(a)(1) and (8)). Source-The provisions of this § 129.96 adopted April 22, 2016, effective April 23, 2016, 46 Pa.B. 2036. Cross References-This section cited in 25 Pa. Code § 121.1 (relating to definitions); 25 Pa. Code § 129.97 (relating to presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule); 25 Pa. Code § 129.98 (relating to facility-wide or system-wide NOx emissions averaging plan general requirements); 25 Pa. Code § 129.99 (relating to alternative RACT proposal and petition for alternative compliance schedule); and 25 Pa. Code § 129.100 (relating to compliance demonstration and recordkeeping requirements).]

Page 149



066 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.60]

Subpart F- Standards of Performance for Portland Cement Plants

Applicability and designation of affected facility.

- a) The provisions of this subpart are applicable to the following affected facilities in portland cement plants: Kiln, clinker cooler, raw mill system, finish mill system, raw mill dryer, raw material storage, clinker storage, finished product storage, conveyor transfer points, bagging and bulk loading and unloading systems.
- (b) Any facility under paragraph (a) of this section that commences construction or modification after August 17, 1971, is subject to the requirements of this subpart.

[42 FR 37936, July 25, 1977]

067 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1340]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

What parts of my plant does this subpart cover?

- (a) The provisions of this subpart apply to each new and existing portland cement plant which is a major source or an area source as defined in § 63.2.
- (b) The affected sources subject to this subpart are:
- (1) Each kiln including alkali bypasses and inline coal mills, except for kilns that burn hazardous waste and are subject to and regulated under subpart EEE of this part;
- (2) Each clinker cooler at any portland cement plant;
- (3) Each raw mill at any portland cement plant;
- (4) Each finish mill at any portland cement plant;
- (5) Each raw material dryer at any portland cement plant;
- (6) Each raw material, clinker, or finished product storage bin at any portland cement plant that is a major source;
- (7) Each conveying system transfer point including those associated with coal preparation used to convey coal from the mill to the kiln at any portland cement plant that is a major source;
- (8) Each bagging and bulk loading and unloading system at any portland cement plant that is a major source; and
- (9) Each open clinker storage pile at any portland cement plant.
- (c) Onsite sources that are subject to standards for nonmetallic mineral processing plants in subpart OOO, part 60 of this chapter are not subject to this subpart. Crushers are not covered by this subpart regardless of their location.
- (d) If you are subject to any of the provisions of this subpart you are also subject to title V permitting requirements.

[75 FR 55051, Sept. 9, 2010, as amended at 78 FR 10036, Feb. 12, 2013]

068 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1342]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Standards: General.

Table 1 to this subpart provides cross references to the 40 CFR part 63, subpart A, general provisions, indicating the applicability of the general provisions requirements to subpart LLL.

[71 FR 76549, Dec. 20, 2006]

069 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1351]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Compliance dates.

- (a) N/A
- (b) N/A
- (c) N/A
- (d) The compliance date for new sources is February 12, 2013, or startup, whichever is later.
- (e) N/A

DEP Auth ID: 1320403

PROPOSED 05/04/2022 08:43 AM



[78 FR 10053, Feb. 12, 2013]

070 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1356]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Sources with multiple emission limits or monitoring requirements.

If you have an affected source subject to this subpart with a different emissions limit or requirement for the same pollutant under another regulation in title 40 of this chapter, once you are in compliance with the most stringent emissions limit or requirement, you are not subject to the less stringent requirement. Until you are in compliance with the more stringent limit, the less stringent limit continues to apply.

[80 FR 44791, July 27, 2015]





Group Name: G04 OTHER AFFECTED SOURCES

Group Description: Other affected Sources requirements with State, NSPS and NESHAPS

Sources included in this group

ID	Name
	RAILCAR LOADING
209	EAST CEMENT SILOS
210	WEST CEMENT SILOS
213	SOUTH PACKER
214	NORTH PACKER
215	MASONRYPACKER
216	EAST/WEST TRUCK LOADING
217	NEW TRUCK LOADING
218	RAILCAR LOADING
252	RAW MATERIAL UNLOADING- LIMESTONE, COAL, SLAG
253	RAW MATERIAL UNLOADING-ADDITIVES
254	RAW MATERIAL STORAGE
255	RAW MATERIAL STORAGE FEED- ADDITIVES
256	RAW MATERIAL STORAGE RECLAIM TO RAW MILL FEED-LIMESTONE
257	RAW MATERIAL STORAGE RECLAIM TO RAW MILL FEED - ADDIT/LIMEST
260	BLENDING (HOMOGENIZING) SILOS
261	BLENDING SILO RECLAIM TO PREHEATER KILN FEED
262	COAL MILL & KILN BURNER & CALCINER FEED STORAGE & RECLAIM
266	CLINKER DOME STORAGE AND RECLAIM
267	CLINKER DOME RECLAIM FEED TO CLINKER SILO#15
268	CLINKER DOME RECLAIM FEED TO MATL STORAGE BLG
269	CLINKER DOME RECLAIM FEED TO CLINKER SILO #1
270	STORAGE RECLAIM FEED TO FINISH MILL #1
271	FINISH MILL #1
272	STORAGE RECLAIM FEED TO RAW MILL #2
273	FINISH MILL #2

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.13]

Processes

- (a) Subsections (b) and (c) apply to all processes except combustion units, incinerators and pulp mill smelt dissolving tanks.
- (b) No person may permit the emission into the outdoor atmosphere of particulate matter from any process listed in the following table, at any time, either in excess of the rate calculated by the formula in paragraph (2) or in such a manner that the concentration of particulate matter in the effluent gas exceeds 0.02 grains per dry standard cubic foot, whichever is greater:
- (1) Table.

DEP Auth ID: 1320403

Process Factor, F (in

Process pounds per ton)

Portland cement manufacturing:

Clinker production 150 (dry solids feed)





Clinker cooling 50 (product)

(2) Formula

 $A = .76E^{(0.42)}$

where:

A = Allowable emissions in pounds per hour.

 $E = Emission index = F \times W$ pounds per hour.

F = Process factor in pounds per unit, and

W = Production or charging rate in units per hour.

The factor F shall be obtained from the table in paragraph (1). The units for F and W shall be compatible.

- (3) Allowable emissions. Allowable emissions under this subsection are graphically indicated in Appendix B.
- (c) For processes not listed in subsection (b)(1), including but not limited to, coke oven battery waste heat stacks and autogeneous zinc coker waste heat stacks, the following shall apply:
- (1) Prohibited emissions. No person may permit the emission into the outdoor atmosphere of particulate matter from any process not listed in subsection (b)(1) in a manner that the concentration of particulate matter in the effluent gas exceeds any of the following:
- (i) .04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.
 - (ii) The rate determined by the formula:

A = 6000/E

where:

A = Allowable emissions in grains per dry standard cubic foot, and

E = Effluent gas volume in dry standard cubic feet per minute,

when E is equal to or greater than 150,000 but less than 300,000.

- (iii) .02 grain per dry standard cubic foot, when the effluent gas volume is greater than 300,000 dry standard cubic feet per minute.
 - (2) Allowable emissions. Allowable emissions under this subsection are graphically indicated in Appendix C.

(d) N/A

002 [25 Pa. Code §123.41]

Limitations

DEP Auth ID: 1320403

A person may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following:

- (1) Equal to or greater than 20% for a period or periods aggregating more than three minutes in any 1 hour.
- (2) Equal to or greater than 60% at any time.

[For some sources, this restriction has been superseded by a more stringent opacity limit of 10% as specified in 40 CFR 60 Subpart F and 40 CFR 63 Subpart LLL]

[40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.62]

Subpart F - Standards of Performance for Portland Cement Plants Standard for particulate matter.

(a) See Group G03 for applicable kiln limitations.

PROPOSED 05/04/2022 08:43 AM



- (b) See Group G03 for applicable clinker cooler limitations.
- (c) On and after the date on which the performance test required to be conducted by § 60.8 is completed, you may not discharge into the atmosphere from any affected facility other than the kiln and clinker cooler any gases which exhibit 10 percent opacity, or greater.
- (d) If you have an affected source subject to this subpart with a different emissions limit or requirement for the same pollutant under another regulation in title 40 of this chapter, once you are in compliance with the most stringent emissions limit or requirement, you are not subject to the less stringent requirement. Until you are in compliance with the more stringent limit, the less stringent limit continues to apply.
- (e) The compliance date for all revised monitoring and recordkeeping requirements contained in this rule will be the same as listed in 63.1351(c) unless you commenced construction as of June 16, 2008, at which time the compliance date is November 8, 2010 or upon startup, whichever is later.

[75 FR 55034, Sept. 9, 2010, as amended at 78 FR 10032, Feb. 12, 2013; 80 FR 44777, July 27, 2015]

[Afftected facilities are defined under 40 CFR Part 60.60 located under VII. Additional Requirements.] [Compliance with this limitation ensures compliance with the 25 Pa.Code 123.41 opacity limitation.]

004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1343]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

What standards apply to my kilns, clinker coolers, raw material dryers, and open clinker piles?

- (a) General. The provisions in this section apply to each kiln and any alkali bypass associated with that kiln, clinker cooler, raw material dryer, and open clinker storage pile... [Applicable sources and limitations located in Group G03]
- (b) (1)Kilns, clinker coolers, raw material dryers, raw mills, and finish mills. (1) The emissions limits for these sources are shown in Table 1.

Applicable to this project- Table 1 - Emissions Limits for Kilns, Clinker Coolers, Raw Material Dryers, Raw and Finish Mills (1)-(12) [See Group G03 for applicabilty]

(13) Existing or New Raw Mill or Finish Mill (all modes) (major): Opacity: 10 percent

(b)(2) - NA

DEP Auth ID: 1320403

(c) Open clinker storage pile. N/A- [No open clinker storage pile was identified in the application]

The operation and maintenance plan must also describe the measures that will be used to minimize fugitive dust emissions from piles of clinker, such as accidental spillage, that are not part of open clinker storage piles.

- (1) The operation and maintenance plan must identify and describe the location of each current or future open clinker storage pile and the fugitive dust emissions control measures the owner or operator will use to minimize fugitive dust emissions from each open clinker storage pile.
- (2) For open clinker storage piles, the operations and maintenance plan must specify that one or more of the following control measures will be used to minimize to the greatest extent practicable fugitive dust from open clinker storage piles: Locating the source inside a partial enclosure, installing and operating a water spray or fogging system, applying appropriate chemical dust suppression agents, use of a wind barrier, compaction, use of tarpaulin or other equally effective cover or use of a vegetative cover. You must select, for inclusion in the operations and maintenance plan, the fugitive dust control measure or measures listed in this paragraph that are most appropriate for site conditions. The plan must also explain how the measure or measures selected are applicable and appropriate for site conditions. In addition, the plan must be revised as needed to reflect any changing conditions at the source.
- (3) Temporary piles of clinker that result from accidental spillage or clinker storage cleaning operations must be cleaned up within 3 days.

[78 FR 10037, Feb. 12, 2013, as amended at 80 FR 44779, July 27, 2015; 83 FR 35132, July 25, 2018]



[Compliance with this NESHAP opacity limitation ensures compliance with the 25 Pa. Code 123.41 opacity limitation.]

005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1345]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Emissions limits for affected sources other than kilns; in-line kiln/raw mills; clinker coolers; new and reconstructed raw

The owner or operator of each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; bulk loading or unloading system; raw and finish mills; and each existing raw material dryer, at a facility which is a major source subject to the provisions of this subpart must not cause to be discharged any gases from these affected sources which exhibit opacity in excess of 10 percent.

[78 FR 10039, Feb. 12, 2013]

37-00013G

[Compliance with this NESHAP opacity limitation ensures compliance with the 25 Pa. Code 123.41 opacity limitation.]

II. TESTING REQUIREMENTS.

006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.64] Subpart F - Standards of Performance for Portland Cement Plants Test methods and procedures.

- (a) In conducting the performance tests and relative accuracy tests required in § 60.8, you must use reference methods and procedures and the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b).
- (b)(1) See Group G03 for sources subject to this requirement.
- (2) Use Method 9 and the procedures in § 60.11 to determine opacity.
- (3) Any sources other than kilns (including associated alkali bypass and clinker cooler) that are subject to the 10 percent opacity limit must follow the appropriate monitoring procedures in § 63.1350(f), (m)(1)through (4), (10) and (11), (o), and (p) of this chapter.
- (c) See Group G03 for sources subject to this requirement.
- (d)(1) Within 60 days after the date of completing each performance test (see § 60.8) as required by this subpart you must submit the results of the performance tests conducted to demonstrate compliance under this subpart to the EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (http://www.epa.gov/cdx). Performance test data must be submitted in the file format generated through use of the EPA's Electronic Reporting Tool (ERT) (see http://www.epa.gov/ttn/chief/ert/index.html). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk, flash drive or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to the EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, you must also submit these reports, including the CBI, to the delegated authority in the format specified by the delegated authority. For any performance test conducted using test methods that are not listed on the ERT Web site, you must submit the results of the performance test to the Administrator at the appropriate address listed in § 63.13.
- (2) See Group G03 for sources subject to this requirement.
- (3) See Group G03 for sources subject to this requirement.

DEP Auth ID: 1320403

(4) All reports required by this subpart not subject to the requirements in paragraphs (d)(1) and (2) of this section must be





sent to the Administrator at the appropriate address listed in § 63.13. The Administrator or the delegated authority may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). The Administrator retains the right to require submittal of reports subject to paragraph (d)(1) and (2) of this section in paper format.

[78 FR 10035, Feb. 12, 2013, as amended at 80 FR 44778, July 27, 2015]

007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1348]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Compliance requirements.

(a) Initial Performance Test Requirements. For an affected source subject to this subpart, you must demonstrate compliance with the emissions standards and operating limits by using the test methods and procedures in §§ 63.1349 and 63.7. Any affected source that was unable to demonstrate compliance before the compliance date due to being idled, or that had demonstrated compliance but was idled during the normal window for the next compliance test, must demonstrate compliance within 180 days after coming out of the idle period. Any cement kiln that has been subject to the requirements of subpart CCCC or subpart DDDD of 40 CFR Part 60, and is now electing to cease burning nonhazardous solid waste and become subject to this subpart, must meet all the initial compliance testing requirements each time it becomes subject to this subpart, even if it was previously subject to this subpart.

Note to paragraph (a):

The first day of the 30 operating day performance test is 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 (e.g., PS 2, 12A, or 12B) acceptance criteria. The performance test period is complete at the end of the 30th consecutive operating day. See § 63.1341 for definition of operating day and § 63.1348(b)(1) for the CEMS operating requirements. The source has the option of performing the compliance test earlier then the compliance date if desired.

- (1) PM Compliance. If you are subject to limitations on PM emissions under § 63.1343(b), you must demonstrate compliance with the PM emissions standards by using the test methods and procedures in § 63.1349(b)(1).
- (2) Opacity Compliance. If you are subject to the limitations on opacity under § 63.1345, you must demonstrate compliance with the opacity emissions standards by using the performance test methods and procedures in § 63.1349(b)(2). Use the maximum 6-minute average opacity exhibited during the performance test period to determine whether the affected source is in compliance with the standard.
- (3) N/A
- (4) N/A
- (5) N/A
- (6) N/A
- (7) N/A

- (b) Continuous Monitoring Requirements. You must demonstrate compliance with the emissions standards and operating limits by using the performance test methods and procedures in §§ 63.1350 and 63.8 for each affected source.
- (1) General Requirements. (i) You must monitor and collect data according to § 63.1350 and the site-specific monitoring plan required by § 63.1350(p).
- (ii) Except for periods of startup and shutdown, monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), you must operate the monitoring system and collect data at all required intervals at all times the affected source is operating.
- (iii) You may not use data recorded during monitoring system startup, shutdown or malfunctions or repairs associated with monitoring system malfunctions in calculations used to report emissions or operating levels. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.



- (iv) Clinker Production. If you are subject to limitations on mercury emissions (lb/MM tons of clinker) under § 63.1343(b), you must determine the hourly production rate of clinker according to the requirements of § 63.1350(d).
- (2) PM Compliance. If you are subject to limitations on PM emissions under \S 63.1343(b), you must use the monitoring methods and procedures in \S 63.1350(b) and (d).
- (3) Opacity Compliance. If you are subject to the limitations on opacity under § 63.1345, you must demonstrate compliance using the monitoring methods and procedures in § 63.1350(f) based on the maximum 6-minute average opacity exhibited during the performance test period. You must initiate corrective actions within one hour of detecting visible emissions above the applicable limit.
- (i) COMS. If you install a COMS in lieu of conducting the daily visible emissions testing, you must demonstrate compliance using a COMS such that it is installed, operated, and maintained in accordance with the requirements of § 63.1350(f)(4)(i).
- (ii) Bag Leak Detection System (BLDS). If you install a BLDS on a raw mill or finish mill in lieu of conducting the daily visible emissions testing, you must demonstrate compliance using a BLDS that is installed, operated, and maintained in accordance with the requirements of § 63.1350(f)(4)(ii).
- (4) N/A
- (5) N/A
- (6) N/A
- (7) N/A
- (8) N/A
- (9) N/A
- (c) Changes in operations. (1) If you plan to undertake a change in operations that may adversely affect compliance with an applicable standard, operating limit, or parametric monitoring value under this subpart, the source must conduct a performance test as specified in § 63.1349(b).
- (2) In preparation for and while conducting a performance test required in § 63.1349(b), you may operate under the planned operational change conditions for a period not to exceed 360 hours, provided that the conditions in (c)(2)(i) through (c)(2)(iv) of this section are met. You must submit temperature and other monitoring data that are recorded during the pretest operations.
- (i) You must provide the Administrator written notice at least 60 days prior to undertaking an operational change that may adversely affect compliance with an applicable standard under this subpart for any source, or as soon as practicable where 60 days advance notice is not feasible. Notice provided under this paragraph must include a description of the planned change, the emissions standards that may be affected by the change, and a schedule for completion of the performance test required under paragraph (c)(1) of this section, including when the planned operational change period would begin.
- (ii) The performance test results must be documented in a test report according to § 63.1349(a).
- (iii) A test plan must be made available to the Administrator prior to performance testing, if requested.
- (iv) The performance test must be completed within 360 hours after the planned operational change period begins.
- (d) General duty to minimize emissions. At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[75 FR 55055, Sept. 9, 2010, as amended at 78 FR 10040, Feb. 12, 2013; 80 FR 44781, July 27, 2015; 83 FR 35132, July 25, 2018]

008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1349]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Performance testing requirements.

DEP Auth ID: 1320403

(a) You must document performance test results in complete test reports that contain the information required by paragraphs (a)(1) through (10) of this section, as well as all other relevant information. As described in § 63.7(c)(2)(i), you must make available to the Administrator prior to testing, if requested, the site-specific test plan to be followed during performance testing. For purposes of determining exhaust gas flow rate to the atmosphere from an alkali bypass stack or a



coal mill stack, you must either install, operate, calibrate and maintain an instrument for continuously measuring and recording the exhaust gas flow rate according to the requirements in paragraphs § 63.1350(n)(1) through (10) of this subpart or use the maximum design exhaust gas flow rate. For purposes of determining the combined emissions from kilns equipped with an alkali bypass or that exhaust kiln gases to a coal mill that exhausts through a separate stack, instead of installing a CEMS on the alkali bypass stack or coal mill stack, you may use the results of the initial and subsequent performance test to demonstrate compliance with the relevant emissions limit.

- (1) A brief description of the process and the air pollution control system;
- (2) Sampling location description(s);
- (3) A description of sampling and analytical procedures and any modifications to standard procedures;
- (4) Test results;
- (5) Quality assurance procedures and results;
- (6) Records of operating conditions during the performance test, preparation of standards, and calibration procedures;
- (7) Raw data sheets for field sampling and field and laboratory analyses;
- (8) Documentation of calculations;
- (9) All data recorded and used to establish parameters for monitoring; and
- (10) Any other information required by the performance test method.

(b)(1)- N/A

- (b)(2) Opacity tests. If you are subject to limitations on opacity under this subpart, you must conduct opacity tests in accordance with Method 9 of appendix A-4 to part 60 of this chapter. The duration of the Method 9 performance test must be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of paragraphs (b)(2)(i) and (ii) of this section apply. For batch processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating.
- (i) There are no individual readings greater than 10 percent opacity;
- (ii) There are no more than three readings of 10 percent for the first 1-hour period.
- (3) N/A
- (4) N/A
- (5) N/A
- (6) N/A
- (7) N/A
- (8) N/A
- (c) Performance test frequency. Except as provided in § 63.1348(b), performance tests are required at regular intervals for affected sources that are subject to a dioxin, organic HAP or HCI emissions limit. Performance tests required every 30 months must be completed no more than 31 calendar months after the previous performance test except where that specific pollutant is monitored using CEMS; performance tests required every 12 months must be completed no more than 13 calendar months after the previous performance test.

(d) [Reseved]

(e) Conditions of performance tests. Conduct performance tests under such conditions as the Administrator specifies to the owner or operator based on representative performance of the affected source for the period being tested. Upon request, you must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

[75 FR 55057, Sept. 9, 2010, as amended at 78 FR 10040, Feb. 12, 2013; 80 FR 44781, July 27, 2015; 80 FR 54729, Sept. 11, 2015; 81 FR 48359, July 25, 2016; 82 FR 28565, June 23, 2017; 82 FR 39673, Aug. 22, 2017; 83 FR 35132, July 25, 2018; 85 FR 63418, Oct. 7, 2020]

III. MONITORING REQUIREMENTS.

009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1350]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Monitoring requirements.

DEP Auth ID: 1320403

a)(1) Following the compliance date, the owner or operator must demonstrate compliance with this subpart on a continuous basis by meeting the requirements of this section.





- (2) [Reserved]
- (3) For each existing unit that is equipped with a CMS, maintain the average emissions or the operating parameter values within the operating parameter limits established through performance tests.
- (4) Any instance where the owner or operator fails to comply with the continuous monitoring requirements of this section is a violation.
- (b) PM monitoring requirements. [See Group G03 for applicable requirements]
- (c) [Reserved]
- (d) Clinker production monitoring requirements. [See Group G03 for applicable requirements]
- (e) [Reserved]

- (f) Opacity monitoring requirements. If you are subject to a limitation on opacity under § 63.1345, you must conduct required opacity monitoring in accordance with the provisions of paragraphs (f)(1)(i) through (vii) of this section and in accordance with your monitoring plan developed under § 63.1350(p). You must also develop an opacity monitoring plan in accordance with paragraphs (p)(1) through (4) and paragraph (o)(5), if applicable, of this section.
- (1)(i) You must conduct a monthly 10-minute visible emissions test of each affected source in accordance with Method 22 of appendix A-7 to part 60 of this chapter. The performance test must be conducted while the affected source is in operation. (ii) If no visible emissions are observed in six consecutive monthly tests for any affected source, the owner or operator may
- decrease the frequency of performance testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, you must resume performance testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
- (iii) If no visible emissions are observed during the semi-annual test for any affected source, you may decrease the frequency of performance testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual performance test, the owner or operator must resume performance testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
- (iv) If visible emissions are observed during any Method 22 performance test, of appendix A-7 to part 60 of this chapter, you must conduct 30 minutes of opacity observations, recorded at 15-second intervals, in accordance with Method 9 of appendix A-4 to part 60 of this chapter. The Method 9 performance test, of appendix A-4 to part 60 of this chapter, must begin within 1 hour of any observation of visible emissions.
- (v) Any totally enclosed conveying system transfer point, regardless of the location of the transfer point is not required to conduct Method 22 visible emissions monitoring under this paragraph. The enclosures for these transfer points must be operated and maintained as total enclosures on a continuing basis in accordance with the facility operations and maintenance plan.
- (vi) If any partially enclosed or unenclosed conveying system transfer point is located in a building, you must conduct a Method 22 performance test, of appendix A-7 to part 60 of this chapter, according to the requirements of paragraphs (f)(1)(i) through (iv) of this section for each such conveying system transfer point located within the building, or for the building itself, according to paragraph (f)(1)(vii) of this section.
- (vii) If visible emissions from a building are monitored, the requirements of paragraphs (f)(1)(i) through (f)(1)(iv) of this section apply to the monitoring of the building, and you must also test visible emissions from each side, roof, and vent of the building for at least 10 minutes.
- (2)(i) For a raw mill or finish mill, you must monitor opacity by conducting daily visible emissions observations of the mill sweep and air separator PM control devices (PMCD) of these affected sources in accordance with the procedures of Method 22 of appendix A-7 to part 60 of this chapter. The duration of the Method 22 performance test must be 6 minutes.
- (ii) Within 24 hours of the end of the Method 22 performance test in which visible emissions were observed, the owner or operator must conduct a follow up Method 22 performance test of each stack from which visible emissions were observed during the previous Method 22 performance test.
- (iii) If visible emissions are observed during the follow-up Method 22 performance test required by paragraph (f)(2)(ii) of this section from any stack from which visible emissions were observed during the previous Method 22 performance test required by paragraph (f)(2)(i) of the section, you must then conduct an opacity test of each stack from which emissions were observed during the follow up Method 22 performance test in accordance with Method 9 of appendix A-4 to part 60 of this chapter. The duration of the Method 9 test must be 30 minutes.
- (3) If visible emissions are observed during any Method 22 visible emissions test conducted under paragraphs (f)(1) or (2) of this section, you must initiate, within one-hour, the corrective actions specified in your operation and maintenance plan as required in § 63.1347.





- (4) The requirements under paragraph (f)(2) of this section to conduct daily Method 22 testing do not apply to any specific raw mill or finish mill equipped with a COMS or BLDS.
- (i) If the owner or operator chooses to install a COMS in lieu of conducting the daily visible emissions testing required under paragraph (f)(2) of this section, then the COMS must be installed at the outlet of the PM control device of the raw mill or finish mill and the COMS must be installed, maintained, calibrated, and operated as required by the general provisions in subpart A of this part and according to PS-1 of appendix B to part 60 of this chapter.
- (ii) If you choose to install a BLDS in lieu of conducting the daily visible emissions testing required under paragraph (f)(2) of this section, the requirements in paragraphs (m)(1) through (m)(4), (m)(10) and (m)(11) of this section apply.
- (g) D/F monitoring requirements. [See Group G03 for applicable requirements]
- (h) Monitoring requirements for sources using sorbent injection. [See Group G03 for applicable requirements]
- (i) THC Monitoring Requirements.[See Group G03 for applicable requirements]
- (j) Total organic HAP monitoring requirements. [See Group G03 for applicable requirements]
- (k) Mercury monitoring requirements. [See Group G03 for applicable requirements]
- (I) HCl Monitoring Requirements. [See Group G03 for applicable requirements]
- (m) Parameter monitoring requirements. [See Group G03 for applicable requirements]
- (n) Continuous Flow Rate Monitoring System. [See Group G03 for applicable requirements]
- (o) Alternate monitoring requirements approval. [See Group G03 for applicable requirements]
- (p) Development and submittal (upon request) of monitoring plans. If you demonstrate compliance with any applicable emissions limit through performance stack testing or other emissions monitoring, you must develop a site-specific monitoring plan according to the requirements in paragraphs (p)(1) through (4) of this section. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under paragraph (o) of this section and § 63.8(f). If you use a BLDS, you must also meet the requirements specified in paragraph (p)(5) of this section.
- (1) For each CMS required in this section, you must develop, and submit to the permitting authority for approval upon request, a site-specific monitoring plan that addresses paragraphs (p)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan, if requested, at least 30 days before your initial performance evaluation of your CMS.
- (i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);
- (ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and
- (iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations).
- (2) In your site-specific monitoring plan, you must also address paragraphs (p)(2)(i) through (iii) of this section.
- (i) Ongoing operation and maintenance procedures in accordance with the general requirements of \S 63.8(c)(1), (c)(3), and (c)(4)(ii);
- (ii) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d); and
- (iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c), (e)(1), and (e)(2)(i).
- (3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.
- (4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.
- (5) BLDS monitoring plan. Each monitoring plan must describe the items in paragraphs (p)(5)(i) through (v) of this section. At a minimum, you must retain records related to the site-specific monitoring plan and information discussed in paragraphs (m)(1) through (4), (m)(10) and (11) of this section for a period of 5 years, with at least the first 2 years on-site;
- (i) Installation of the BLDS;

- (ii) Initial and periodic adjustment of the BLDS, including how the alarm set-point will be established;
- (iii) Operation of the BLDS, including quality assurance procedures;
- (iv) How the BLDS will be maintained, including a routine maintenance schedule and spare parts inventory list;
- (v) How the BLDS output will be recorded and stored.





[75 FR 55059, Sept. 9, 2010, as amended at 76 FR 2836, Jan. 18, 2011; 78 FR 10048, Feb. 12, 2013; 80 FR 44788, July 27, 2015; 80 FR 54729, Sept. 11, 2015; 81 FR 48361, July 25, 2016; 82 FR 28565, June 23, 2017; 82 FR 39673, Aug. 22, 2017; 83 FR 35133, July 25, 2018]

IV. RECORDKEEPING REQUIREMENTS.

010 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall comply with the recordkeeping requirements established in 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources), the "Record Keeping and Reporting" requirements in Revision No. 8 of the Department's Continuous Source Monitoring Manual (274-0300-001), and the recordkeeping requirements established in 40 CFR §§60.7 and 60.13, 40 CFR Part 60 Subparts A and F, 40 CFR 63 Subparts A and LLL, and Part 75 Subpart F, as applicable. (Additional authority for this condition is derived from 40 CFR Part 60 Subparts A and F, 40 CFR 63 Subparts A and LLL, 40 CFR Part 75 Subpart F, and 25 Pa. Code §§139.101(5) and 139.101(12))

Compliance with any subsequently issued revision to the Continuous Source Monitoring Manual will constitute compliance with this permit condition.

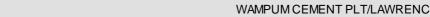
011 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1355]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Recordkeeping requirements.

- (a) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by § 63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.
- (b) The owner or operator shall maintain records for each affected source as required by § 63.10(b)(2) and (b)(3) of this part; and
- (1) All documentation supporting initial notifications and notifications of compliance status under § 63.9;
- (2) All records of applicability determination, including supporting analyses; and
- (3) If the owner or operator has been granted a waiver under § 63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements.
- (c) In addition to the recordkeeping requirements in paragraph (b) of this section, the owner or operator of an affected source equipped with a continuous monitoring system shall maintain all records required by § 63.10(c).
- (d) [Reserved]

- (e) You must keep records of the daily clinker production rates according to the clinker production monitoring requirements in § 63.1350(d).
- (f) You must keep records of the date, time and duration of each startup or shutdown period for any affected source that is subject to a standard during startup or shutdown that differs from the standard applicable at other times, and the quantity of feed and fuel used during the startup or shutdown period.
- (g)(1) You must keep records of the date, time and duration of each malfunction that causes an affected source to fail to meet an applicable standard; if there was also a monitoring malfunction, the date, time and duration of the monitoring malfunction; the record must list the affected source or equipment, an estimate of the volume of each regulated pollutant emitted over the standard for which the source failed to meet a standard, and a description of the method used to estimate the emissions.
- (2) You must keep records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.1348(d) including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- (h) For each exceedance from an emissions standard or established operating parameter limit, you must keep records of the date, duration and description of each exceedance and the specific actions taken for each exceedance including inspections, corrective actions and repeat performance tests and the results of those actions.





I64 FR 31925, June 14, 1999, as amended at 71 FR 76552, Dec. 20, 2006; 75 FR 55064, Sept. 9, 2010; 78 FR 10053, Feb. 12, 2013; 80 FR 44791, July 27, 2015; 81 FR 48362, July 25, 2016; 83 FR 35135, July 25, 2018]

V. REPORTING REQUIREMENTS.

37-00013G

[40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1353]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Notification requirements.

- (a) The notification provisions of 40 CFR part 63, subpart A that apply and those that do not apply to owners and operators of affected sources subject to this subpart are listed in Table 1 of this subpart. If any State requires a notice that contains all of the information required in a notification listed in this section, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification.
- (b) Each owner or operator subject to the requirements of this subpart shall comply with the notification requirements in § 63.9 as follows:
- (1) Initial notifications as required by § 63.9(b) through (d). For the purposes of this subpart, a Title V or 40 CFR part 70 permit application may be used in lieu of the initial notification required under § 63.9(b), provided the same information is contained in the permit application as required by § 63.9(b), and the State to which the permit application has been submitted has an approved operating permit program under part 70 of this chapter and has received delegation of authority from the EPA. Permit applications shall be submitted by the same due dates as those specified for the initial notification.
- (2) Notification of performance tests, as required by §§ 63.7 and 63.9(e).
- (3) Notification of opacity and visible emission observations required by § 63.1349 in accordance with §§ 63.6(h)(5) and 63.9(f).
- (4) Notification, as required by § 63.9(g), of the date that the continuous emission monitor performance evaluation required by § 63.8(e) is scheduled to begin.
- (5) Notification of compliance status, as required by § 63.9(h).
- (6) Within 48 hours of an exceedance that triggers retesting to establish compliance and new operating limits, notify the appropriate permitting agency of the planned performance tests. The notification requirements of §§ 63.7(b) and 63.9(e) do not apply to retesting required for exceedances under this subpart.

[64 FR 31925, June 14, 1999, as amended at 78 FR 10053, Feb. 12, 2013]

[40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1354]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Reporting requirements.

- (a) The reporting provisions of subpart A of this part that apply and those that do not apply to owners or operators of affected sources subject to this subpart are listed in Table 1 of this subpart. If any State requires a report that contains all of the information required in a report listed in this section, the owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of this section for that report.
- (b) The owner or operator of an affected source shall comply with the reporting requirements specified in § 63.10 of the general provisions of this part 63, subpart A as follows:
- (1) As required by § 63.10(d)(2), the owner or operator shall report the results of performance tests as part of the notification of compliance status.
- (2) As required by § 63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by § 63.1349.
- (3) As required by § 63.10(d)(4), the owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under § 63.6(i) shall submit such reports by the dates specified in the written extension of compliance.
- (4)-(5) [Reserved]
- (6) As required by § 63.10(e)(2), the owner or operator shall submit a written report of the results of the performance evaluation for the continuous monitoring system required by § 63.8(e). The owner or operator shall submit the report simultaneously with the results of the performance test.
- (7) As required by § 63.10(e)(2), the owner or operator of an affected source using a continuous opacity monitoring system to determine opacity compliance during any performance test required under § 63.7 and described in § 63.6(d)(6) shall



report the results of the continuous opacity monitoring system performance evaluation conducted under § 63.8(e).

- (8) As required by § 63.10(e)(3), the owner or operator of an affected source equipped with a continuous emission monitor shall submit an excess emissions and continuous monitoring system performance report for any event when the continuous monitoring system data indicate the source is not in compliance with the applicable emission limitation or operating parameter limit.
- (9) The owner or operator shall submit a summary report semiannually within 60 days of the reporting period to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/). You must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, you may submit an alternate electronic file consistent with the extensible markup language (XML) schema listed on the CEDRI website (https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report the Administrator at the appropriate address listed in § 63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. The excess emissions and summary reports must be submitted no later than 60 days after the end of the reporting period, regardless of the method in which the reports are submitted. The report must contain the information specified in § 63.10(e)(3)(vi). In addition, the summary report shall include:
- (i) All exceedances of maximum control device inlet gas temperature limits specified in § 63.1346(a) and (b);
- (ii) Notification of any failure to calibrate thermocouples and other temperature sensors as required under § 63.1350(g)(1)(iii) of this subpart; and
- (iii) Notification of any failure to maintain the activated carbon injection rate, and the activated carbon injection carrier gas flow rate or pressure drop, as applicable, as required under § 63.1346(c)(2).
- (iv) Notification of failure to conduct any combustion system component inspections conducted within the reporting period as required under § 63.1347(a)(3).
- (v) Any and all failures to comply with any provision of the operation and maintenance plan developed in accordance with § 63.1347(a).
- (vi) For each PM CPMS, HCI, Hg, and THC CEMS, SO2 CEMS, or Hg sorbent trap monitoring system, within 60 days after the reporting periods, you must report all of the calculated 30-operating day rolling average values derived from the CPMS, CEMS, CMS, or Hg sorbent trap monitoring systems.
- (vii) In response to each violation of an emissions standard or established operating parameter limit, the date, duration and description of each violation and the specific actions taken for each violation including inspections, corrective actions and repeat performance tests and the results of those actions.
- (10) If the total continuous monitoring system downtime for any CEM or any CMS for the reporting period is 10 percent or greater of the total operating time for the reporting period, the owner or operator shall submit an excess emissions and continuous monitoring system performance report along with the summary report.
- (11)(i) You must submit the information specified in paragraphs (b)(11)(i)(A) and (B) of this section no later than 60 days following the initial performance test. All reports must be signed by a responsible official.
- (A) The initial performance test data as recorded under § 63.1349(a).
- (B) The values for the site-specific operating limits or parameters established pursuant to § 63.1349(b)(1), (3), (6), (7), and (8), as applicable, and a description, including sample calculations, of how the operating parameters were established during the initial performance test.
- (C) As of December 31, 2011, and within 60 days after the date of completing each performance evaluation or test, as defined in § 63.2, conducted to demonstrate compliance with any standard covered by this subpart, you must submit the relative accuracy test audit data and performance test data, except opacity data, to the EPA by successfully submitting the data electronically via CEDRI and by using the Electronic Reporting Tool (ERT) (see https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert). For any performance evaluations with no corresponding RATA pollutants listed on the ERT website, you must submit the results of the performance evaluation to the Administrator at the appropriate address listed in § 63.13.
- (ii) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g. beta attenuation), span of the instruments primary analytical range, milliamp value equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp signals corresponding to each PM compliance test run.
- (12) All reports required by this subpart not subject to the requirements in paragraphs (b)(9) introductory text and (b)(11)(i) of this section must be sent to the Administrator at the appropriate address listed in § 63.13. The Administrator or the delegated authority may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). The Administrator retains the right to require submittal of reports subject to paragraphs (b)(9) introductory text and (b)(11)(i) of this section in paper format.





(c) For each failure to meet a standard or emissions limit caused by a malfunction at an affected source, you must report the failure in the semi-annual compliance report required by § 63.1354(b)(9). The report must contain the date, time and duration, and the cause of each event (including unknown cause, if applicable), and a sum of the number of events in the reporting period. The report must list for each event the affected source or equipment, an estimate of the amount of each regulated pollutant emitted over the emission limit for which the source failed to meet a standard, and a description of the method used to estimate the emissions. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 63.1348(d), including actions taken to correct a malfunction.

 $[64\ FR\ 31925, June\ 14, 1999, as\ amended\ at\ 75\ FR\ 55063, Sept.\ 9, 2010; 78\ FR\ 10053, Feb.\ 12, 2013; 80\ FR\ 44790, July\ 27, 2015; 83\ FR\ 35135, July\ 25, 2018]$

VI. WORK PRACTICE REQUIREMENTS.

014 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1347]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Operation and maintenance plan requirements.

- a) You must prepare, for each affected source subject to the provisions of this subpart, a written operations and maintenance plan. The plan must be submitted to the Administrator for review and approval as part of the application for a part 70 permit and must include the following information:
- (1) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emissions limits and operating limits, including fugitive dust control measures for open clinker piles of §§63.1343, 63.1345, and 63.1346. Your operations and maintenance plan must address periods of startup and shutdown.
- (2) Corrective actions to be taken when required by paragraph §63.1350(f)(3);
- (3) N/A

DEP Auth ID: 1320403

(b) Failure to comply with any provision of the operations and maintenance plan developed in accordance with this section is a violation of the standard.

[75 FR 55054, Sept. 9, 2010, as amended at 78 FR 10040, Feb. 12, 2013; 80 FR 44781, July 27, 2015]

VII. ADDITIONAL REQUIREMENTS.

015 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The 40 CFR 60 Subpart A-General Provisions apply unless otherwise noted in 40 CFR 60 Subpart F.

016 [25 Pa. Code §127.205]

Special permit requirements.

The Department will not issue a plan approval, or an operating permit, or allow continued operations under an existing permit or plan approval unless the applicant demonstrates that the following special requirements are met:

- (1) A new or modified facility subject to this subchapter shall comply with LAER, except as provided in § 127.203a(a)(2) (relating to applicability determination). When a facility is composed of several sources, only sources which are new or which are modified shall be required to implement LAER. In addition, LAER applies to the proposed modification which results in an increase in emissions and to subsequent or previous modifications which result in emissions increases that are directly related to and normally included in the project associated with the proposed modification and which occurred within the contemporaneous period of the proposed emissions increase.
- (i) A project that does not commence construction within 18 months of the date specified in the plan approval shall be reevaluated for its compliance with LAER before the start of construction.
- (ii) A project that discontinues construction for 18 months or more after construction is commenced shall be reevaluated for its compliance with LAER before resuming construction.



- (iii) A project that does not complete construction within the time period specified in the plan approval shall be reevaluated for its compliance with LAER.
- (iv) A project that is constructed in phases shall be reevaluated for its compliance with LAER if there is a delay of greater than 18 months beyond the projected and approved commencement date for each independent phase.
- (2) Each facility located within this Commonwealth which meets the requirements of and is subject to this subchapter, which is owned or operated by the applicant, or by an entity controlling, controlled by or under common control with the applicant, and which is subject to emissions limitations shall be in compliance, or on a schedule for compliance approved by the Department in a plan approval or permit, with the applicable emissions limitation and standards contained in this article. A responsible official of the applicant shall certify as to the facilities' compliance in writing on a form provided by the Department.
- (3) Each modification to a facility which meets the requirements of and is subject to this subchapter shall offset, in accordance with §§ 127.203, 127.203a and 127.210 (relating to facilities subject to special permit requirements; applicability determination; and offset ratios), the total of the net increase. Emissions offsets shall be required for the entire net emissions increase which occurred over the contemporaneous period except to the extent that emissions offsets or other reductions were previously applied against emissions increases in an earlier applicability determination.
- (4) Each new facility which meets the requirements of and is subject to this subchapter shall offset the potential to emit of that facility with ERCs in accordance with § 127.210.
- (5) For a new or modified facility which meets the requirements of and is subject to this subchapter, an analysis shall be conducted of alternative sites, sizes, production processes and environmental control techniques for the proposed facility, which demonstrates that the benefits of the proposed facility significantly outweigh the environmental and social costs imposed within this Commonwealth as a result of its location, construction or modification.
- (6) In the case of a new or modified facility which is located in a nonattainment area, and within a zone, identified by the EPA Administrator, in consultation with the Secretary of Housing and Urban Development, as a zone to which economic development should be targeted, emissions of a pollutant resulting from the proposed new or modified facility may not cause or contribute to emission levels which exceed the allowance permitted for the pollutant for the area from new or modified facilities in the SIP.
 - (7) The Department may determine that the BAT requirements of this chapter are equivalent to BACT or LAER.
- # 017 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.60] Subpart F- Standards of Performance for Portland Cement Plants Applicability and designation of affected facility.
- a) The provisions of this subpart are applicable to the following affected facilities in portland cement plants: Kiln, clinker cooler, raw mill system, finish mill system, raw mill dryer, raw material storage, clinker storage, finished product storage, conveyor transfer points, bagging and bulk loading and unloading systems.
- (b) Any facility under paragraph (a) of this section that commences construction or modification after August 17, 1971, is subject to the requirements of this subpart.

[42 FR 37936, July 25, 1977]

DEP Auth ID: 1320403

018 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1340]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

What parts of my plant does this subpart cover?

- (a) The provisions of this subpart apply to each new and existing portland cement plant which is a major source or an area source as defined in § 63.2.
- (b) The affected sources subject to this subpart are:
- (1) Each kiln including alkali bypasses and inline coal mills, except for kilns that burn hazardous waste and are subject to and regulated under subpart EEE of this part; [See Group G03]
- (2) Each clinker cooler at any portland cement plant; [See Group G03]

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- (3) Each raw mill at any portland cement plant; [See Group G03]
- (4) Each finish mill at any portland cement plant;
- (5) Each raw material dryer at any portland cement plant;
- (6) Each raw material, clinker, or finished product storage bin at any portland cement plant that is a major source;
- (7) Each conveying system transfer point including those associated with coal preparation used to convey coal from the mill to the kiln at any portland cement plant that is a major source;
- (8) Each bagging and bulk loading and unloading system at any portland cement plant that is a major source; and
- (9) Each open clinker storage pile at any portland cement plant. [N/A, Not identified in plan approval application]
- (c) Onsite sources that are subject to standards for nonmetallic mineral processing plants in subpart OOO, part 60 of this chapter are not subject to this subpart. Crushers are not covered by this subpart regardless of their location.
- (d) If you are subject to any of the provisions of this subpart you are also subject to title V permitting requirements.

[75 FR 55051, Sept. 9, 2010, as amended at 78 FR 10036, Feb. 12, 2013]

019 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1342]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Standards: General.

Table 1 to this subpart provides cross references to the 40 CFR part 63, subpart A, general provisions, indicating the applicability of the general provisions requirements to subpart LLL.

[71 FR 76549, Dec. 20, 2006]

020 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1356]

Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Sources with multiple emission limits or monitoring requirements.

If you have an affected source subject to this subpart with a different emissions limit or requirement for the same pollutant under another regulation in title 40 of this chapter, once you are in compliance with the most stringent emissions limit or requirement, you are not subject to the less stringent requirement. Until you are in compliance with the more stringent limit, the less stringent limit continues to apply.

[80 FR 44791, July 27, 2015]





Group Name: G05 ROADWAYS

Group Description: Paved and Unpaved Roadways

Sources included in this group

ID	Name
184	UNPAVED ROADS
185	PAVED ROADS

I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Plant roadway fugitive emissions shall be minimized through frequent monitoring and controls that include: paving and/or watering of facility roadways, good housekeeping measures, vehicle speed controls, and facility-wide inspections.

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).





Group Name: G06 EMERGENCY ENGINES

Group Description: FIRE PUMP AND EMERGENCY GENERATOR

Sources included in this group

ID	Name
274	EMERGENCY DIESEL ENGINE 1475 BHP
275	FIRE PUMP ENGINE 183 BHP

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.13]

Processes

- (a) Subsections (b) and (c) apply to all processes except combustion units, incinerators and pulp mill smelt dissolving tanks.
 - (b) N/A
- (c) For processes not listed in subsection (b)(1), including but not limited to, coke oven battery waste heat stacks and autogeneous zinc coker waste heat stacks, the following shall apply:
- (1) Prohibited emissions. No person may permit the emission into the outdoor atmosphere of particulate matter from any process not listed in subsection (b)(1) in a manner that the concentration of particulate matter in the effluent gas exceeds any of the following:
- (i) .04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.
 - (ii) N/A
 - (iii) N/A
 - (2) N/A
 - (d) N/A

002 [25 Pa. Code §123.21]

General

- (a) This section applies to sources except those subject to other provisions of this article, with respect to the control of sulfur compound emissions.
- (b) No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO2, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Beginning June 1, 2010. Except as otherwise specifically provided in [40 CFR Part 80 Subpart I], all NR and [N/A] diesel fuel is subject to the following per-gallon standards [40 CFR §80.510(b)]:

- 1) Sulfur content:
- i. 15 ppm maximum for NR diesel fuel.
- ii. N/A

- 2) Cetane index or aromatic content, as follows:
- i. A minimum cetane index of 40; or
- ii. A maximum aromatic content of 35 volume percent.



004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Visible emissions from the diesel-fired fire pump and emergency generator engines shall not:

- Equal to or greater than 10% for a period or periods aggregating more than 3 minutes in any 1 hour
- Equal to or greater than 30% at any time

005 [25 Pa. Code §129.93]

Presumptive RACT emission limitations

- (a) The owner and operator of a major NOx emitting facility listed in this section and subject to 129.91 (relating to control of major sources of NOx and VOCs) may elect to comply with the emission limitations of this section as an alternative to developing and implementing a RACT emission limitation on a case-by-case basis.
 - (b) N/A
- (c) For the following source types, presumptive RACT emission limitation are the installation, maintenance and operation of the source in accordance with manufacturers specifications:
 - (1) (4) N/A
- (5) Any fuel-burning equipment, gas turbine or internal combustion engine with an annual capacity factor of less than 5%, or an emergency standby engine operating less than 500 hours in a consecutive 12-month period.
 - (6) (7) N/A

006 [25 Pa. Code §129.97]

Presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule.

- (a) The owner and operator of a source listed in one or more of subsections (b)—(h) located at a major NOx emitting facility or major VOC emitting facility subject to § 129.96 (relating to applicability) shall comply with the applicable presumptive RACT requirement or RACT emission limitation, or both, beginning with the specified compliance date as follows, unless an alternative compliance schedule is submitted and approved under subsections (k)—(m) or § 129.99 (relating to alternative RACT proposal and petition for alternative compliance schedule):
 - (1) January 1, 2017, for a source subject to § 129.96(a).
- (2) January 1, 2017, or 1 year after the date the source meets the definition of a major NOx emitting facility or major VOC emitting facility, whichever is later, for a source subject to § 129.96(b).
- (b) N/A
- (c) The owner and operator of a source specified in this subsection, which is located at a major NOx emitting facility or major VOC emitting facility subject to § 129.96 shall install, maintain and operate the source in accordance with the manufacturer's specifications and with good operating practices:
 - (1) (7) N/A
 - (8) An emergency standby engine operating less than 500 hours in a 12-month rolling period.
- (d) Except as specified under subsection (c), the owner and operator of a combustion unit or other combustion source located at a major VOC emitting facility subject to § 129.96 shall install, maintain and operate the source in accordance with the manufacturer's specifications and with good operating practices for the control of the VOC emissions from the combustion unit or other combustion source.
- (e) N/A
- (f) N/A
- (g) N/A



- (h) N/A
- (i) The requirements and emission limitations of this section supersede the requirements and emission limitations of a RACT permit issued to the owner or operator of an air contamination source subject to one or more of subsections (b)—(h) prior to April 23, 2016, under § § 129.91—129.95 (relating to stationary sources of NOx and VOCs) to control, reduce or minimize NOx emissions or VOC emissions, or both, from the air contamination source unless the permit contains more stringent requirements or emission limitations, or both.
- (j) The requirements and emission limitations of this section supersede the requirements and emission limitations of § § 129.201—129.205, 145.111—145.113 and 145.141—145.146 (relating to additional NOx requirements; emissions of NOx from stationary internal combustion engines; and emissions of NOx from cement manufacturing) unless the requirements or emission limitations of § § 129.201—129.205, § § 145.111—145.113 or § § 145.141—145.146 are more stringent.
- (k) The owner or operator of a major NOx emitting facility or a major VOC emitting facility subject to § 129.96 that includes an air contamination source subject to one or more of subsections (b)—(h) that cannot meet the applicable presumptive RACT requirement or RACT emission limitation without installation of an air cleaning device may submit a petition, in writing, requesting an alternative compliance schedule in accordance with the following:
- (1) The written petition shall be submitted to the Department or appropriate approved local air pollution control agency as soon as possible but not later than:
 - (i) October 24, 2016, for a source subject to § 129.96(a).
- (ii) October 24, 2016, or 6 months after the date that the source meets the definition of a major NOx emitting facility, whichever is later, for a source subject to § 129.96(b).
 - (2) The written petition must include:
- (i) A description, including make, model and location, of each affected source subject to a RACT requirement or a RACT emission limitation in one or more of subsections (b)—(h).
 - (ii) A description of the proposed air cleaning device to be installed.
- (iii) A schedule containing proposed interim dates for completing each phase of the required work to install the air cleaning device described in subparagraph (ii).
- (iv) A proposed interim emission limitation that will be imposed on the affected source until compliance is achieved with the applicable RACT requirement or RACT emission limitation.
- (v) A proposed final compliance date that is as soon as possible but not later than 3 years after the written approval of the petition by the Department or the appropriate approved local air pollution control agency. The approved petition shall be incorporated in an applicable operating permit or plan approval.
- (I) The Department or appropriate approved local air pollution control agency will review the timely and complete written petition requesting an alternative compliance schedule submitted in accordance with subsection (k) and approve or deny the petition in writing.
- (m) Approval or denial under subsection (l) of the timely and complete petition for an alternative compliance schedule submitted under subsection (k) will be effective on the date the letter of approval or denial of the petition is signed by the authorized representative of the Department or appropriate approved local air pollution control agency.

007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6585]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Am I subject to this subpart?

DEP Auth ID: 1320403

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.





- (a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.
- (b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.
- (c) (f) N/A

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008; 78 FR 6700, Jan. 30, 2013]

008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6590]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What parts of my plant does this subpart cover?

- (a) Affected source. An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.
- (1) N/A
- (2) New stationary RICE. (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.
- (ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.
- (iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.
- (3) N/A
- (b) Stationary RICE subject to limited requirements. (1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of § 63.6645(f).
- (i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii). (Applies to Source ID 274)
- (ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
- (2) N/A
- (3) N/A
- (c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IJII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.
- (1) (5) N/A
- (6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP)emissions; (Applies to Source 275- Fire pump)
- (7) N/A



[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010; 78 FR 6700, Jan. 30, 2013]

Fuel Restriction(s).

009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4207]

Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to
[Reserved]

- (b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.
- (c) [Reserved]
- (d) N/A
- (e) N/A

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011; 78 FR 6695, Jan. 30, 2013; 85 FR 78463, Dec. 4, 2020]

II. TESTING REQUIREMENTS.

010 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The diesel-fired fire pump engine may only be tested when the kiln is not in operation.

III. MONITORING REQUIREMENTS.

011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4209]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are the monitoring requirements if I am an owner or operator of a stationary Cl internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in § 60.4211.

- (a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.
- (b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in § 60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

IV. RECORDKEEPING REQUIREMENTS.

012 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

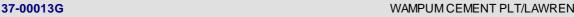
The Permittee shall keep records of monthly and 12-month rolling period hours of engine operation.

013 [25 Pa. Code §127.12b]

DEP Auth ID: 1320403

Plan approval terms and conditions.

Fuel analysis, manufacturer's certified emission data, other supporting information, and calculations using Department approved emission factors shall be used to demonstrate compliance with the SOX, PM, VOC, and NOx emission



limitations.

014 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

To demonstrate compliance with 25 Pa. Code 127.205 NOx and VOC LAER emission restrictions, the manufacturer's certified emissions data may be used.

[40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4214] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

- (a) N/A
- (b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.
- (c) N/A
- (d) (d) If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 60.4211(f)(2)(ii) and (iii) or that operates for the purposes specified in § 60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs (d)(1) through (3) of this section.
- (1) The report must contain the following information:
- (i) Company name and address where the engine is located.
- (ii) Date of the report and beginning and ending dates of the reporting period.
- (iii) Engine site rating and model year.
- (iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
- (v) Hours operated for the purposes specified in § 60.4211(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in § 60.4211(f)(2)(ii) and (iii).
- (vi) Number of hours the engine is contractually obligated to be available for the purposes specified in § 60.4211(f)(2)(ii) and (iii).
- (vii) Hours spent for operation for the purposes specified in § 60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in § 60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.
- (2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.
- (3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in § 60.4.
- (e) N/A



[71 FR 39172, July 11, 2006, as amended at 78 FR 6696, Jan. 30, 2013; 81 FR 44219, July 7, 2016]

V. REPORTING REQUIREMENTS.

37-00013G

016 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6645]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What notifications must I submit and when?

- (a) (e) N/A
- (f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with § 63.6590(b), your notification should include the information in § 63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions). (Applies to Source ID 274)
- (g) N/A
- (h) N/A
- (i) N/A

DEP Auth ID: 1320403

[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6705, Jan. 30, 2013; 85 FR 73912, Nov. 19, 2020]

017 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.9]

Subpart A--General Provisions

Notification requirements.

- (a) Applicability and general information. (1) The applicability of this section is set out in § 63.1(a)(4).
- (2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.
- (3) If any State requires a notice that contains all the information required in a notification listed in this section, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification.
- (4)(i) Before a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in § 63.13).
- (ii) After a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each notification submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any notifications at its discretion.
- (b) Initial notifications. (1)(i) The requirements of this paragraph apply to the owner or operator of an affected source when such source becomes subject to a relevant standard.
- (ii) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source shall be subject to the notification requirements of this section.





- (iii) Affected sources that are required under this paragraph to submit an initial notification may use the application for approval of construction or reconstruction under § 63.5(d) of this subpart, if relevant, to fulfill the initial notification requirements of this paragraph.
- (2) The owner or operator of an affected source that has an initial startup before the effective date of a relevant standard under this part shall notify the Administrator in writing that the source is subject to the relevant standard. The notification, which shall be submitted not later than 120 calendar days after the effective date of the relevant standard (or within 120 calendar days after the source becomes subject to the relevant standard), shall provide the following information:
- (i) The name and address of the owner or operator;
- (ii) The address (i.e., physical location) of the affected source;
- (iii) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;
- (iv) A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted; and
- (v) A statement of whether the affected source is a major source or an area source.
- (3) [Reserved]
- (4) The owner or operator of a new or reconstructed major affected source for which an application for approval of construction or reconstruction is required under § 63.5(d) must provide the following information in writing to the Administrator:
- (i) A notification of intention to construct a new major-emitting affected source, reconstruct a major-emitting affected source, or reconstruct a major source such that the source becomes a major-emitting affected source with the application for approval of construction or reconstruction as specified in § 63.5(d)(1)(i); and
- (ii)-(iv) [Reserved]

- (v) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.
- (5) The owner or operator of a new or reconstructed affected source for which an application for approval of construction or reconstruction is not required under § 63.5(d) must provide the following information in writing to the Administrator:
- (i) A notification of intention to construct a new affected source, reconstruct an affected source, or reconstruct a source such that the source becomes an affected source, and
- (ii) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.
- (iii) Unless the owner or operator has requested and received prior permission from the Administrator to submit less than the information in § 63.5(d), the notification must include the information required on the application for approval of construction or reconstruction as specified in § 63.5(d)(1)(i).
- (c) Request for extension of compliance. If the owner or operator of an affected source cannot comply with a relevant standard by the applicable compliance date for that source, or if the owner or operator has installed BACT or technology to meet LAER consistent with § 63.6(i)(5) of this subpart, he/she may submit to the Administrator (or the State with an approved permit program) a request for an extension of compliance as specified in § 63.6(i)(4) through § 63.6(i)(6).
- (d) Notification that source is subject to special compliance requirements. An owner or operator of a new source that is subject to special compliance requirements as specified in § 63.6(b)(3) and § 63.6(b)(4) shall notify the Administrator of his/her compliance obligations not later than the notification dates established in paragraph (b) of this section for new sources that are not subject to the special provisions.





- (e) Notification of performance test. The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the Administrator to review and approve the site-specific test plan required under § 63.7(c), if requested by the Administrator, and to have an observer present during the test.
- (f) Notification of opacity and visible emission observations. The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting the opacity or visible emission observations specified in § 63.6(h)(5), if such observations are required for the source by a relevant standard. The notification shall be submitted with the notification of the performance test date, as specified in paragraph (e) of this section, or if no performance test is required or visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under § 63.7, the owner or operator shall deliver or postmark the notification not less than 30 days before the opacity or visible emission observations are scheduled to take place.
- (g) Additional notification requirements for sources with continuous monitoring systems. The owner or operator of an affected source required to use a CMS by a relevant standard shall furnish the Administrator written notification as follows:
- (1) A notification of the date the CMS performance evaluation under § 63.8(e) is scheduled to begin, submitted simultaneously with the notification of the performance test date required under § 63.7(b). If no performance test is required, or if the requirement to conduct a performance test has been waived for an affected source under § 63.7(h), the owner or operator shall notify the Administrator in writing of the date of the performance evaluation at least 60 calendar days before the evaluation is scheduled to begin;
- (2) A notification that COMS data results will be used to determine compliance with the applicable opacity emission standard during a performance test required by § 63.7 in lieu of Method 9 or other opacity emissions test method data, as allowed by § 63.6(h)(7)(ii), if compliance with an opacity emission standard is required for the source by a relevant standard. The notification shall be submitted at least 60 calendar days before the performance test is scheduled to begin; and
- (3) A notification that the criterion necessary to continue use of an alternative to relative accuracy testing, as provided by § 63.8(f)(6), has been exceeded. The notification shall be delivered or postmarked not later than 10 days after the occurrence of such exceedance, and it shall include a description of the nature and cause of the increased emissions.
- (h) Notification of compliance status. (1) The requirements of paragraphs (h)(2) through (h)(4) of this section apply when an affected source becomes subject to a relevant standard.
- (2)(i) Before a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit to the Administrator a notification of compliance status, signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with the relevant standard. The notification shall list -
- (A) The methods that were used to determine compliance;
- (B) The results of any performance tests, opacity or visible emission observations, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;
- (C) The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods;
- (D) The type and quantity of hazardous air pollutants emitted by the source (or surrogate pollutants if specified in the relevant standard), reported in units and averaging times and in accordance with the test methods specified in the relevant standard;
- (E) If the relevant standard applies to both major and area sources, an analysis demonstrating whether the affected source is a major source (using the emissions data generated for this notification);
- (F) A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method); and





- (G) A statement by the owner or operator of the affected existing, new, or reconstructed source as to whether the source has complied with the relevant standard or other requirements.
- (ii) The notification must be sent before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard (unless a different reporting period is specified in the standard, in which case the letter must be sent before the close of business on the day the report of the relevant testing or monitoring results is required to be delivered or postmarked). For example, the notification shall be sent before close of business on the 60th (or other required) day following completion of the initial performance test and again before the close of business on the 60th (or other required) day following the completion of any subsequent required performance test. If no performance test is required but opacity or visible emission observations are required to demonstrate compliance with an opacity or visible emission standard under this part, the notification of compliance status shall be sent before close of business on the 30th day following the completion of opacity or visible emission observations. Notifications may be combined as long as the due date requirement for each notification is met.
- (3) After a title V permit has been issued to the owner or operator of an affected source, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under this part. After a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in the relevant standard.

(4) [Reserved]

- (5) If an owner or operator of an affected source submits estimates or preliminary information in the application for approval of construction or reconstruction required in § 63.5(d) in place of the actual emissions data or control efficiencies required in paragraphs (d)(1)(ii)(H) and (d)(2) of § 63.5, the owner or operator shall submit the actual emissions data and other correct information as soon as available but no later than with the initial notification of compliance status required in this section.
- (6) Advice on a notification of compliance status may be obtained from the Administrator.
- (i) Adjustment to time periods or postmark deadlines for submittal and review of required communications. (1)(i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (i)(2) and (i)(3) of this section, the owner or operator of an affected source remains strictly subject to the requirements of this part.
- (ii) An owner or operator shall request the adjustment provided for in paragraphs (i)(2) and (i)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.
- (2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.
- (3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.
- (4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.
- (j) Change in information already provided. Any change in the information already provided under this section shall be provided to the Administrator in writing within 15 calendar days after the change.





[59 FR 12430, Mar. 16, 1994, as amended at 64 FR 7468, Feb. 12, 1999; 67 FR 16604, Apr. 5, 2002; 68 FR 32601, May 30, 20031

VI. WORK PRACTICE REQUIREMENTS.

018 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall install, maintain, and operate the source in accordance with the manufacturer's specifications and with good operating practices.

019 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Permittee shall install a non-resettable hour meter on each engine as specified in 40 CFR §60.4209(a).

[40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4206] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines How long must I meet the emission standards if I am an owner or operator of a stationary Cl internal combustion engine?

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine.

[76 FR 37969, June 28, 2011]

[40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:

- (1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
- (2) Change only those emission-related settings that are permitted by the manufacturer; and
- (3) Meet the requirements of 40 CFR part 1068, as they apply to you.
- (b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in § 60.4204(a) or § 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in § 60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.
- (1) Purchasing an engine certified to emission standards for the same model year and maximum engine power as described in 40 CFR parts 1039 and 1042, as applicable. The engine must be installed and configured according to the manufacturer's specifications.
- (2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.
- (3) Keeping records of engine manufacturer data indicating compliance with the standards.
- (4) Keeping records of control device vendor data indicating compliance with the standards.
- (5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in § 60.4212, as applicable.
- (c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply





with the emission standards specified in § 60.4204(b) or § 60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in § 60.4205(c), you must comply by purchasing an engine certified to the emission standards in § 60.4204(b), or § 60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.

- (d) If you are an owner or operator and must comply with the emission standards specified in § 60.4204(c) or § 60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.
- (1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in § 60.4213.
- (2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.
- (i) Identification of the specific parameters you propose to monitor continuously;
- (ii) A discussion of the relationship between these parameters and NOX and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NOX and PM emissions;
- (iii) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;
- (iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and
- (v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.
- (3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in § 60.4213.
- (e) If you are an owner or operator of a modified or reconstructed stationary CI internal combustion engine and must comply with the emission standards specified in § 60.4204(e) or § 60.4205(f), you must demonstrate compliance according to one of the methods specified in paragraphs (e)(1) or (2) of this section.
- (1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in § 60.4204(e) or § 60.4205(f), as applicable.
- (2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in § 60.4212 or § 60.4213, as appropriate. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.
- (f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.
- (1) There is no time limit on the use of emergency stationary ICE in emergency situations.





- (2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).
- (i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
- (ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
- (iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- (3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
- (i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
- (A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
- (B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
- (C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
- (D) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.
- (ii) [Reserved]

DEP Auth ID: 1320403

DEP PF ID: 246188

- (g) If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:
- (1) If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

Page 180





- (2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.
- (3) If you are an owner or operator of a stationary CI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.
- (h) The requirements for operators and prohibited acts specified in 40 CFR 1039.665 apply to owners or operators of stationary CI ICE equipped with AECDs for qualified emergency situations as allowed by 40 CFR 1039.665.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37970, June 28, 2011; 78 FR 6695, Jan. 30, 2013; 81 FR 44219, July 7, 2016; 86 FR 34359, June 29, 2021]

VII. ADDITIONAL REQUIREMENTS.

022 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4200] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines Am I subject to this subpart?

- (a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.
- (1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:
- (i) 2007 or later, for engines that are not fire pump engines;
- (ii) The model year listed in Table 3 to this subpart or later model year, for fire pump engines.
- (2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:
- (i) Manufactured after April 1, 2006, and are not fire pump engines, or
- (ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.
- (3) Owners and operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.
- (4) The provisions of § 60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.
- (b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.
- (c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous

DEP Auth ID: 1320403



sentence, you must continue to comply with the provisions of this subpart applicable to area sources.

- (d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C, except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.
- (e) Owners and operators of facilities with CIICE that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011; 86 FR 34357, June 29, 2021]

- # 023 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4208]
 Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
 What is the deadline for importing or installing stationary CI ICE produced in the previous model year?
- (a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.
- (b) (g) N/A

DEP Auth ID: 1320403

- (h) In addition to the requirements specified in §§ 60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (g) of this section.
- (i) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

024 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4218] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines What parts of the General Provisions apply to me?

The Owner/Operator shall comply with the applicable General Provisions in §§60.1 through 60.19 listed in Table 8 to 40 CFR Part 60 Subpart IIII.

025 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4219] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines What definitions apply to this subpart?

All terms used in 40 CFR Part 60 Subpart IIII shall have the meaning given in 40 CFR §60.4219 or else in the Clean Air Act and 40 CFR Part 60 Subpart A.

026 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4219] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine. Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

Diesel particulate filter means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.



Emergency stationary internal combustion engine means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. Stationary CI ICE used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

Engine manufacturer means the manufacturer of the engine. See the definition of "manufacturer" in this section.

Fire pump engine means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

 ${\it Maximum engine power means maximum engine power as defined in 40 CFR 1039.801}.$

Model year means either:

- (1) The calendar year in which the engine was originally produced, or
- (2) The annual new model production period of the engine manufacturer if it is different than the calendar year. This must include January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year. For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was originally produced.

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Reciprocating internal combustion engine means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

Spark ignition means relating to a gasoline, natural gas, or liquefied petroleum gas fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Subpart means 40 CFR part 60, subpart IIII.

DEP PF ID: 246188

DEP Auth ID: 1320403

Useful life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for useful life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for useful life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

Page 183





Group Name: G07 BLDS BAGHOUSES

Group Description: Baghouse capacities equal to or greater than 15,000 acfm

Sources included in this group

ID	Name		
C178	RAILCAR LOADING FABRIC FILTER		
C213	SOUTH PACKER BAGHOUSE		
C214	NORTH PACKER BAGHOUSE		
C215	MASONRY PACKER BAGHOUSE		
C259BRAW MILL BAGHOUSE B			
C260ABLENDING (HOMOGENIZING) SILOS-BAGHOUSE A			
C262ASOURCE 262 BAGHOUSE A			
C263APREHEATER/PRECALCINER KILN			
C264ACLINKER COOLER FABRIC FILTER A-TBD			
C266HCLINKER DOME STORAGE AND RECLAIM BAGHOUSE H			
C270BSTORAGE RECLAIM FEED TO FINISH MILL #1 BAGHOUSE B			
C271AFINISH MILL #1 BAGHOUSE A			
C271BFINISH MILL #1 BAGHOUSE B			
C273AFINISH MILL #2 BAGHOUSE A			
C273BFINISH MILL #2 BAGHOUSE B			

I. RESTRICTIONS.

DEP Auth ID: 1320403

Emission Restriction(s).

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The BLDS must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 or fewer milligrams per actual cubic meter (0.0044 gr/cf).

002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The BLDS must be equipped with a device to continuously record the output signal from the sensor.

003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall develop, and submit to the Department for approval, upon request, a site-specific monitoring plan that addresses the following:

- (i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);
- (ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and
- (iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations).
- (iv) Initial and periodic adjustment of the BLDS, including how the alarm set-point will be established;
- (v) Operation of the BLDS, including quality assurance procedures;
- (vi) How the BLDS will be maintained, including a routine maintenance schedule and spare parts inventory list;
- (vii) How the BLDS output will be recorded and stored.
- (viii) Ongoing operation, quality assurance, maintenance, and reporting procedures in accordance with the general requirements of § 63.8(c)(1), (c)(3), and (c)(4)(ii);
- (ix) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d);
- (x) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c), (e)(1), and (e)(2)(i).
- (xi) How the bag leak detection systems will comply with the provisions of this plan approval for baghouses identified in

37-00013G



SECTION E. Source Group Plan Approval Restrictions.

Group G07 BLDS Baghouses.

(xii) The manufacturer's recommended procedures and specifications and good engineering practices for installing, testing and operating the bag leak detection systems.

II. TESTING REQUIREMENTS.

004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall conduct a performance evaluation of each BLDS in accordance with a site-specific monitoring plan.

III. MONITORING REQUIREMENTS.

005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The BLDS sensor must provide output of absolute PM loadings.

006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The permittee shall adhere to the control device's approved indicator range so that operation within the range shall provide reasonable assurance of compliance.

The indicator ranges must be approved by the Department. The following indicator ranges shall be determined during the initial performance test or any subsequent Department approved performance tests unless otherwise stated:

- 1. The permittee shall develop an indicator range for airflow, measured as fan amperage or frequency, during their most recent department approved stack testing program.
- 2. The permittee shall develop a maximum and minimum pressure drop indicator range, as measured across the baghouse filtration media.
- 3. Triboelectric leak detection status/value.
- 4. Opacity reading.
- (b) The permittee may develop a new pressure drop range with a supported request which is reviewed and approved by the Department.
- (c) The Department, at its discretion, may approve or deny a request to adjust the required indicator ranges.
- (d) The permittee shall utilize approved QA/QC practices that are adequate to ensure continuing validity of data and proper performance of the control device.
- 1. The permittee shall maintain detectors or sensors at Department approved locations for obtaining data that is representative of the monitored indicator.
- 2. The permittee shall maintain verification procedures to confirm that the operational status of the monitoring devices is within the expected range. (Operational status pertains to the accuracy of the measured values.)
- 3. For QA/QC purposes, the permittee shall calibrate and check the accuracy of the monitoring equipment, according to the manufacturer's recommended procedures.

IV. RECORDKEEPING REQUIREMENTS.

007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall record the results of each inspection, calibration, and validation check.

008 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall record the following operational data from the control device (these records may be done with strip charts recorders, data acquisition systems, or manual log entries):

- 1. Pressure drop across the baghouse daily defined as once per calendar day
- 2. Visible emission check daily defined as once per calendar day (weekly defined as once per calendar week or monthly defined as once per calendar month)

Page 185

PROPOSED 05/04/2022 08:43 AM



- 3. Triboelectric leak detection system status daily defined as once per calendar day
- 4. The baghouse airflow or fan amperage/frequency daily defined as once per calendar day

Manual log entries shall include the following:

- 1. Time and date of observation
- 2. Name, title, and signature of the person making the observation
- 3. Any corrective action taken as result of the observation

009 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall record all excursions from the specified operational parameters for the control devices, the corrective actions taken in response to an excursion, and the time elapsed until the corrective actions have been taken.

#010 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall maintain records of all monitoring downtime incidents (other than downtime associated with monitoring system checks). The permittee shall also record the dates, times and durations, probable causes and corrective actions taken for the incidents.

011 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Corrective measures may include an increase of the frequency of required preventative maintenance inspections of the control device, a modification of the prescribed range, or other appropriate action as approved by the Department. Upon receipt of a corrective measure plan the Department shall determine the appropriate corrective measure on a case-by case basis.

The permittee shall maintain records of all preventative maintenance, repairs, and inspections performed on the sources, monitoring equipment, and control devices.

These records shall contain the following at a minimum:

- 1. Time and date of the task
- 2. Name, title, and initials of the person performing the task
- 3. A detailed description any maintenance / inspection / repair performed
- 4. Any problems or defects found
- 5. Any corrective action taken as result of the task

012 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall, at a minimum, retain records related to the site-specific monitoring plan and information discussed for a period of 5 years, with at least the first 2 years on-site;

V. REPORTING REQUIREMENTS.

013 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall submit a written report of the results of the performance evaluation for the continuous monitoring system (BLDS) required by § 63.8(e). The owner or operator shall submit the report simultaneously with the results of the performance test, as applicable.

014 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee of an affected source equipped with a continuous emission monitor (BLDS) shall submit an excess emissions and continuous monitoring system performance report for any event when the continuous monitoring system data indicate the source is not in compliance with the applicable emission limitation or operating parameter limit.

[25 Pa. Code §127.12b]

DEP Auth ID: 1320403

Plan approval terms and conditions.

The permittee shall submit a summary report semiannually within 60 days of the reporting period to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/). You must use the appropriate electronic report in CEDRI for this subpart. Instead of



using the electronic report in CEDRI for this subpart, you may submit an alternate electronic file consistent with the extensible markup language (XML) schema listed on the CEDRI website (https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report the Administrator at the appropriate address listed in § 63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. The excess emissions and summary reports must be submitted no later than 60 days after the end of the reporting period, regardless of the method in which the reports are submitted. The report must contain the information specified in § 63.10(e)(3)(vi).

016 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall report all excursions and corrective actions taken to the Department, including the dates, times, durations and probable causes, every six (6) months.

The permittee shall report all monitoring downtime incidents, their dates, times and durations, probable causes and corrective actions taken, every six (6) months.

In the event of more than one documented excursion outside the prescribed range in any calendar quarter, the permittee shall submit a corrective measure plan to the Department.

Corrective measures may include an increase of the frequency of required preventative maintenance inspections of the control device, a modification of the prescribed range, or other appropriate action as approved by the Department. Upon receipt of a corrective measure plan the Department shall determine the appropriate corrective measure on a case-by case basis.

VI. WORK PRACTICE REQUIREMENTS.

017 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall install and operate a BLDS for each fabric filter identified in this group.

018 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Each BLDS must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations, in accordance with the guidance provided in EPA-454/R-98-015, September 1997, and in accordance with good air pollution control practices.

019 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The BLDS must be equipped with an alarm system that will alert an operator automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located such that the alert is detected and recognized easily by an operator.

020 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a BLDS must be installed in each baghouse compartment or cell.

021 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

022 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall utilize approved QAQC practices that are adequate to ensure continuing validity of data and proper performance of the bag leak detection systems.

023 [25 Pa. Code §127.12b]

DEP Auth ID: 1320403

Plan approval terms and conditions.

The permittee shall calibrate and check the accuracy of the bag leak detection systems taking into account manufacturer's specifications at least annually.

37-00013G



SECTION E. **Source Group Plan Approval Restrictions.**

024 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall maintain all monitoring equipment and stock parts necessary for routine repairs onsite.

025 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

For each BLDS, the permittee shall initiate procedures to determine the cause of every alarm within 8 hours of the alarm. The permittee must alleviate the cause of the alarm within 24 hours of the alarm by taking whatever corrective action(s) are necessary.

Corrective actions may include, but are not limited to the following:

- (i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions:
- (ii) Sealing off defective bags or filter media;
- (iii) Replacing defective bags or filter media or otherwise repairing the control device;
- (iv) Sealing off a defective fabric filter compartment;
- (v) Cleaning the BLDS probe or otherwise repairing the BLDS; or
- (vi) Shutting down the process producing the PM emissions.

[25 Pa. Code §127.12b] # 026

Plan approval terms and conditions.

The permittee shall perform a daily operational inspection of the control device. As part of this operational inspection the facility shall monitor the pressure drop across the baghouse, verify the bag leak detection system is operating, and shall conduct a visible emission (VE) observation of the baghouse stack. The VE observation shall be 60 seconds in length with reading every 15 seconds and if any visible emissions are observed, a Method 9 observation (30 minutes in duration) shall be conducted to determine compliance with the opacity limitations.

[25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall perform a monthly preventive maintenance inspection of the control device.

A magnehelic gauge or equivalent shall be maintained and operated to monitor the pressure differential across the baghouse. All gauges employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (+/- 2%) of full scale reading.

The permittee shall adhere to the approved indicator range for the baghouse so that operation within the range shall provide reasonable assurance of compliance. A departure from the specified indicator range over a specified averaging period shall be defined as an excursion.

028 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

029 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

DEP PF ID:

246188

Within 24-hours of discovery of a reading outside of the prescribed range the permittee shall perform a maintenance inspection on the control device and take corrective action.

VII. ADDITIONAL REQUIREMENTS.

DEP Auth ID: 1320403

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

Page 188





SECTION F. Alternative Operation Requirements.

No Alternative Operations exist for this Plan Approval facility.

DEP Auth ID: 1320403 DEP PF ID: 246188 Page 189 PROPOSED 05/04/2022 08:43 AM



37-00013G



SECTION G. Emission Restriction Summary.

Source Id

Source Description

Site Emission Restriction Summary

DEP Auth ID: 1320403

Emission Limit		Pollutant
859.000 Tons/Yr	127.12b	NOX
786.000 Tons/Yr	127.12b	СО
149.000 Tons/Yr	127.12b	PM10
228.000 Tons/Yr	127.12b	SOX
46.000 Tons/Yr	127.12b	VOC
30.600 Tons/Yr	127.12b	Ammonia
0.012 Tons/Yr	127.12b	Mercury
116.500 Tons/Yr	127.12b	PM2.5
63.000 Tons/Yr	127.12b	Sulfuric Acid
13.400 Tons/Yr	127.12b	Hydrochloric Acid
1,048,162.000 Tons/Yr	127,12b	Carbon Dioxide





SECTION H. Miscellaneous.

DEP Auth ID: 1320403 DEP PF ID: 246188 Page 191 PROPOSED 05/04/2022 08:43 AM





***** End of Report *****