



**COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
AIR QUALITY PROGRAM**

**TITLE V/STATE OPERATING PERMIT**

Issue Date:	October 26, 2020	Effective Date:	November 1, 2022
Revision Date:	November 1, 2022	Expiration Date:	October 31, 2025
Revision Type:	Modification, Significant		

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 operate the air emission source(s) more fully described in this permit. This Facility is subject to all terms and conditions specified in this permit. Nothing in this permit 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 permit condition is set forth in brackets. All terms and conditions in this permit are federally enforceable applicable requirements unless otherwise designated as "State-Only" or "non-applicable" requirements.

**TITLE V Permit No: 06-05002**

Federal Tax Id - Plant Code: 23-0797050-1

**Owner Information**

Name: LEHIGH CEMENT CO LLC  
Mailing Address: 537 EVANSVILLE RD  
FLEETWOOD, PA 19522-8541

**Plant Information**

Plant: LEHIGH CEMENT CO LLC/EVANSVILLE CEMENT PLT & QUARRY  
Location: 06 Berks County 06942 Maiden Creek Township  
SIC Code: 3241 Manufacturing - Cement, Hydraulic

**Responsible Official**

Name: QUENTIN MCGAHEY  
Title: VP CEMENT OPS  
Phone: (484) 248 - 1312 Email: quentin.mcgahey@lehighhanson.com

**Permit Contact Person**

Name: JODY REBUCK  
Title: PLANT MANAGER  
Phone: (484) 248 - 1342 Email: Jody.Rebuck@lehighhanson.com

[Signature] \_\_\_\_\_  
*WILLIAM R. WEAVER, SOUTH CENTRAL REGION AIR PROGRAM MANAGER*



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**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
440	WASH HOUSE BOILER	2.700 MMBTU/HR	
		19.700 Gal/HR	#2 FUEL OIL
		2,700.000 CF/HR	NATURAL GAS
109	RAW GRIND #1 & HEATER	150.000 Tons/HR	KILN FEED
		9,910.000 CF/HR	NATURAL GAS
		73.000 Gal/HR	#2 FUEL OIL
		70.000 Gal/HR	WDLF
110	RAW GRIND #2 & HEATER	73.000 Gal/HR	#2 FUEL OIL
		100.000 Tons/HR	KILN FEED
		9,910.000 CF/HR	NATURAL GAS
		70.000 Gal/HR	WDLF
112	RAW GRIND #3 & HEATER	133.000 Gal/HR	#2 FUEL OIL
		250.000 Tons/HR	KILN FEED
		18,050.000 CF/HR	NATURAL GAS
		125.000 Gal/HR	WDLF
121	PORTLAND CEMENT KILN #1	90.000 Tons/HR	CEMENT CLINKER
		600.000 Gal/HR	#2 FUEL OIL
		359,000.000 CF/HR	NATURAL GAS
		15.000 Tons/HR	BITUMIOUS COAL & COKE
		5.750 Tons/HR	WDSF (TIRES)
		600.000 Gal/HR	WDLF
		3.000 Tons/HR	WDSF (WASTE WOOD)
		15.000 Tons/HR	ANTHRACITE COAL
		3.000 Tons/HR	ENGINEERED FUEL
122	PORTLAND CEMENT KILN #2	90.000 Tons/HR	CEMENT CLINKER
		15.000 Tons/HR	BITUMINOUS COAL & COKE
		600.000 Gal/HR	#2 FUEL OIL
		359,000.000 CF/HR	NATURAL GAS
		5.750 Tons/HR	WDSF (TIRES)
		600.000 Gal/HR	WDLF
		3.000 Tons/HR	WDSF (WASTE WOOD)
		15.000 Tons/HR	ANTHRACITE COAL
3.000 Tons/HR	ENGINEERED FUEL		
125	CLINKER COOLER #1	90.000 Tons/HR	CEMENT CLINKERS
126	CLINKER COOLER #2	90.000 Tons/HR	CEMENT CLINKERS
159	FINISH GRIND #1 MILL	100.000 Tons/HR	CEMENT CLINKER
160	FINISH GRIND #3 MILL	140.000 Tons/HR	CEMENT CLINKER
162	FINISH GRIND #2 MILL	140.000 Tons/HR	CEMENT CLINKER
176	FIRE PUMP (EMERGENCY)	75.000 Gal/HR	DIESEL
177	RAW MATERIAL DRYER (SLAG)	120.000 Tons/HR	RAW MATERIAL
		365.000 Gal/HR	#2 FUEL OIL
		46,952.000 CF/HR	NATURAL GAS

**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
179	PLANT ROADWAYS		
180	RAW MATERIAL (SLAG/GYPSUM) TRANSFER		
181	SYNTHETIC GYPSUM SYSTEM		
182	COAL HANDLING SYSTEM		
183	TIRE HANDLING SYSTEM		
200	RAW MATERIAL HANDLING	1,200.000 Tons/HR	RAW MATERIAL
		100.000 CF/HR	NATURAL GAS
		50.000 Gal/HR	#2 FUEL OIL
210	KILN FEED	1,200.000 Tons/HR	KILN FEED
220	CLINKER HANDLING & STORAGE	380.000 Tons/HR	CLINKER & OTHERS
230	CEMENT STORAGE	990.000 Tons/HR	CEMENT MATERIALS
240	BULK LOADING	1,600.000 Tons/HR	CEMENT
250	CEMENT PACKAGING PLANT	550.000 Tons/HR	CEMENT
308	KILN LIME BIN #1		
420	AUX KILN DRIVE	5.850 Gal/HR	#2 FUEL OIL
479	MISC COLD CLEANERS		
502	550 HP AIR COMPRESSOR		
C03	BAGHOUSE LIMESTONE CRUSHING & SCREENING		
C05	FABRIC COLLECTOR: ROCK SILO WEST		
C06	FABRIC COLLECTOR: ROCK SILO EAST		
C07	FABRIC COLLECTOR: RAW MILL #1 & 2, BELT 1		
C08	FABRIC COLLECTOR: RAW MILL #3 BELT 1		
C09	FABRIC COLLECTOR: RAW GRIND #1		
C10	FABRIC COLLECTOR: RAW GRIND # 2		
C11	FABRIC COLLECTOR: RAW GRIND #3A		
C12	FABRIC COLLECTOR: RAW GRIND #3B		
C121	CYCLONE/PREHEATER: KILN #1		
C122	CYCLONE/PREHEATER: KILN #2		
C123	SPRAY TOWER: KILN #1		
C124	SPRAY TOWER: KILN #2		
C125	FABRIC COLLECTOR: KILN #1		
C125A	KILN 1 MERCURY CONTROL SYSTEM		
C126	FABRIC COLLECTOR: KILN #2		
C126A	KILN 2 MERCURY CONTROL SYSTEM		
C127	MID-KILN AIR: NO. 2 KILN		
C128	MID-KILN AIR: NO.1 KILN		
C129	LIME INJECTION SYSTEM: KILN #1		
C13	FABRIC COLLECTOR: KILN FD BLEND #2		
C130	LIME INJECTON SYSTEM: KILN #2		
C131	FABRIC COLLECTOR: KILN LIME BIN		

**SECTION A. Site Inventory List**

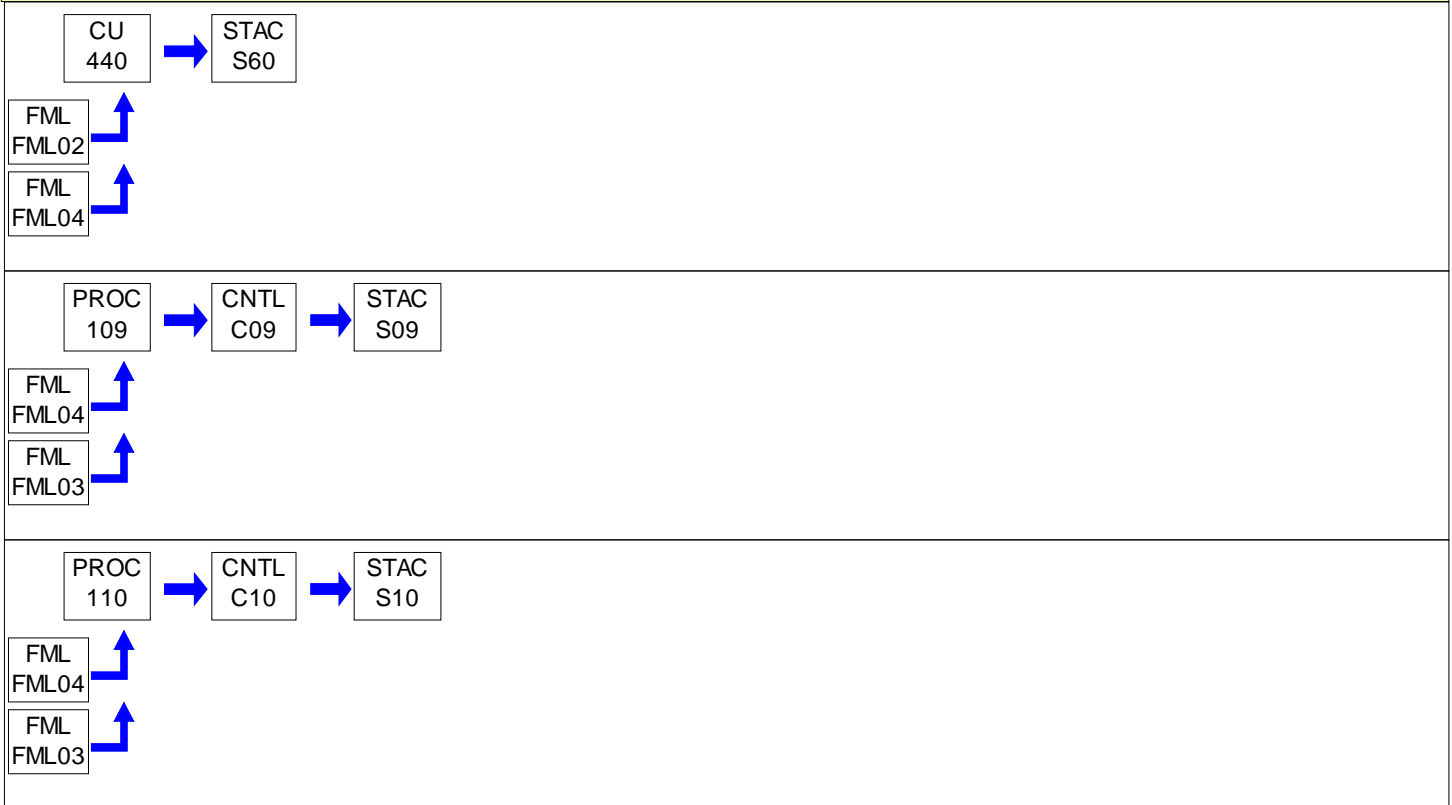
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C132	SNCR: KILN #1		
C133	SNCR: KILN #2		
C14	FABRIC COLLECTOR: KILN FD BLEND #1		
C15	FABRIC COLLECTOR: KILN FD SILOS #1&3		
C17	FABRIC COLLECTOR: KILN FD PUMPS 1 THRU 3		
C180	FABRIC COLLECTOR: RAW MATERIAL TRANSFER		
C19	FABRIC COLLECTOR: KILN FD CONVEYING		
C20	FABRIC COLLECTOR: KILN FD CONVEYING		
C25A	FABRIC COLLECTOR: CLINKER COOLER #1		
C26A	FABRIC COLLECTOR: CLINKER COOLER #2		
C301	FABRIC COLLECTOR: APRON CONVEYORS		
C302	FABRIC COLLECTOR: APRON & SILOS		
C303	FABRIC COLLECTOR: SILO DISTRIBUTION		
C304	FABRIC COLLECTOR: CH B FROM BULK STORAGE		
C305	FABRIC COLLECTOR: ADDITIVE DISTRIBUTION		
C30A	FABRIC COLLECTOR: CH FROM BULK STORE A		
C31	FABRIC COLLECTOR: BULK LDNG SCALE 1		
C32	FABRIC COLLECTOR: BULK LDNG SCALE 2		
C40	FABRIC COLLECTOR: CLINKER HDLGSILO WDG10		
C41	FABRIC COLLECTOR: FINISH GRIND MILL #1		
C42	FABRIC COLLECTOR: FINISH GRIND MILL #3		
C44A	FABRIC COLLECTOR: FINISH GRIND MILL #2		
C44B	FABRIC COLLECTOR: FINISH MILL #2 SEPARATOR		
C46	FABRIC COLLECTOR: CEMENT SILOS 14-21		
C47	FABRIC COLLECTOR: CEMENT SILOS 22-32		
C48	FABRIC COLLECTOR: CEMENT SILOS 33-43		
C52	FABRIC COLLECTOR: BULK LDNG SCALE 4		
C54	FABRIC COLLECTOR: CLINKER HDLGSILO WDG10A		
C55	FABRIC COLLECTOR: CEMENT PKG SYSTEM C		
C56	FABRIC COLLECTOR: CEMENT PKG SYSTEM A		
C57	FABRIC COLLECTOR: CEMENT PKG SYSTEM B		
C58	FABRIC COLLECTOR: SLAG DRYER		
FML01	COAL PILE		
FML02	DIESEL TANKS		
FML03	# 2 OIL/WDLF		
FML04	NATURAL GAS PIPELINE		
FML05	WDSF (TIRES)		
FML06	WASTE WOOD		
FML08	ENGINEERED FUEL		
FML09	ANTHRACITE COAL		

**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
S03	STACK: STONE CRUSH & SCREEN		
S05	STACK: ROCK SILO WEST		
S06	STACK: ROCK SILO EAST		
S07	STACK: RAW MILL BELTS 1,2		
S08	STACK: RAW MILL 3 BELT 1		
S09	STACK: RAW GRIND #1		
S10	STACK: RAW GRIND #2		
S11	STACK: RAW GRIND #3A		
S12	STACK: RAW GRIND #3B		
S125	STACK: KILN #1		
S126	STACK: KILN #2		
S13	STACK: KILN FD BLEND #2		
S14	STACK: KILN FD BLEND #1		
S15	STACK:KILN FEED SILOS 1,3		
S17	STACK: KILN PUMP 1,2,3		
S180	STACK: RAW MATERIAL TRANSFER		
S19	STACK: KILN FD CONVEYING		
S20	STACK: KILN FD CONVEYING		
S25A	STACK: CLINKER COOLER #1		
S26A	STACK: CLINKER COOLER #2		
S301	STACK: APRON CONVEYORS		
S302	STACK: APRON & SILO		
S303	STACK: SILO DISTRIBUTION		
S304	STACK: CH B FROM BULK STORAGE		
S305	STACK: ADDITIVE DISTRIBUTION		
S30A	STACK: CH FROM BULK STORE A		
S31	STACK: BULK LDNG SCALE 1		
S32	STACK: BULK LDNG SCALE 2		
S40	STACK: CLINKER HDLG SILO G10		
S41	STACK: FINISH GRIND MILL #1		
S42	STACK: FINISH GRIND MILL #3		
S44A	STACK: FINISH GRIND MILL #2		
S44B	STACK: FINISH GRIND #2 SEPARATOR		
S46	STACK: CEMENT SILOS 14-21		
S47	STACK: CEMENT SILOS 22-32		
S48	STACK: CEMENT SILOS 33-43		
S52	STACK: BULK LDNG SCALE 4		
S54	STACK: CLINKER HDLG SILO WD G10A		
S55	STACK: CEMENT PKG SYSTEM C		
S56	STACK: CEMENT PKG SYSTEM A		
S57	STACK: CEMENT PKG SYSTEM B		

**SECTION A. Site Inventory List**

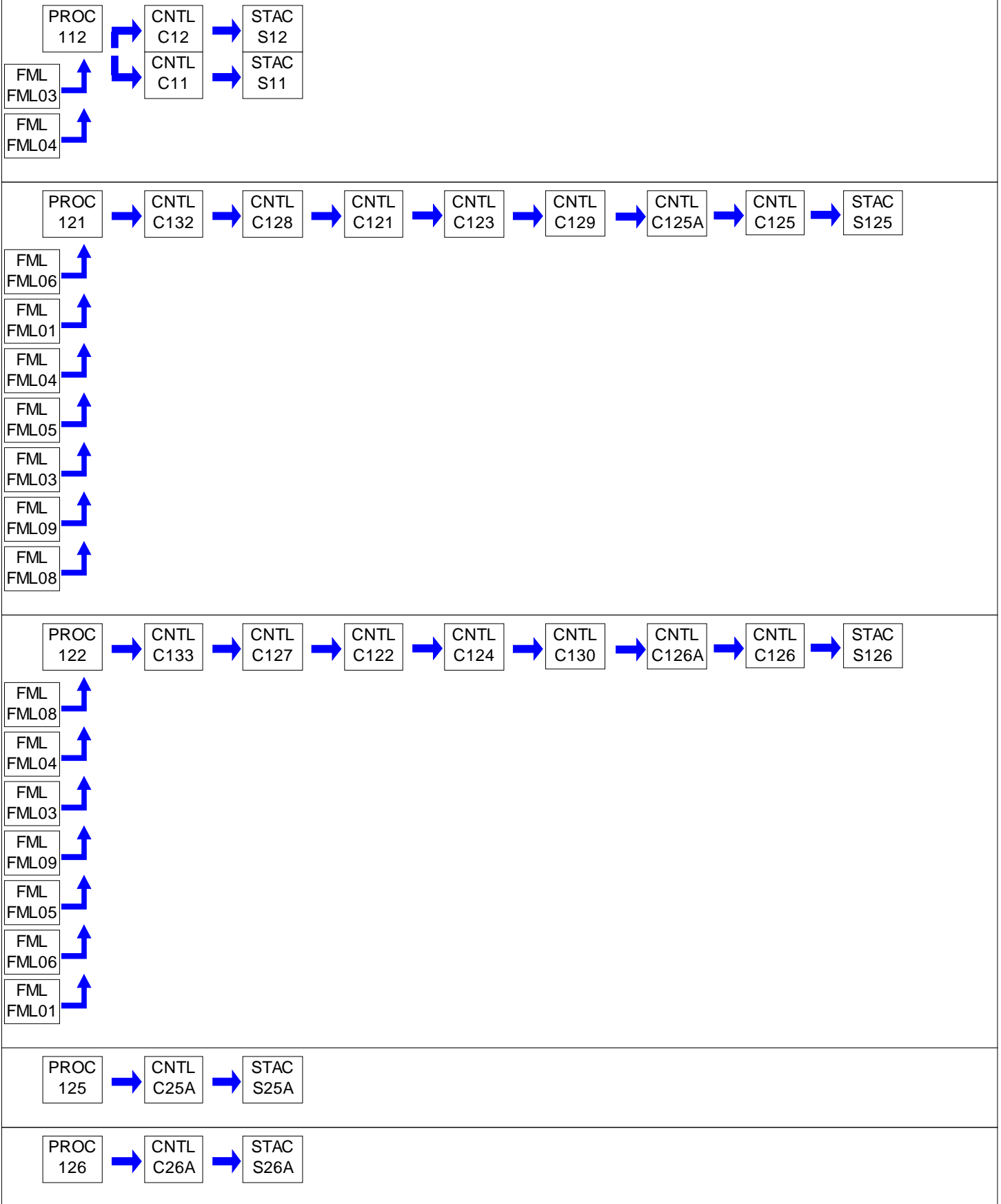
Source ID	Source Name	Capacity/Throughput	Fuel/Material
S58	STACK: SLAG DRYER		
S60	STACK: WASH HOUSE BOILER		
S61	STACK: FIRE PUMP		
S62	STACK: AUX. KILN DR.		
S63	STACK: ROCK SILO HTR		
Z01	FUGITIVE: ROADWAYS		
Z02	FUGITIVE: OUTSIDE CLKR HDLG & STRG		
Z177	FUGITIVE: RAW MATERIAL DRYER		
Z180	FUGITIVE: RAW MATERIAL TRANSFER		
Z181	FUGITIVE: SYNTHETIC GYPSUM SYSTEM		
Z182	FUGITIVE: COAL HANDLING SYSTEM		
Z183	FUGITIVE: TIRE HANDLING SYSTEM		
Z200	FUGITIVE: RAW MATERIAL HANDLING		
Z479	FUGITIVE: MISC COLD CLEANERS		
Z502	550 HP COMPRESSOR EXHAUST		

**PERMIT MAPS**



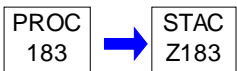
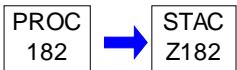
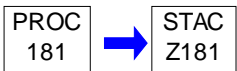
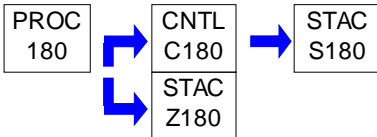
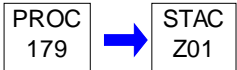
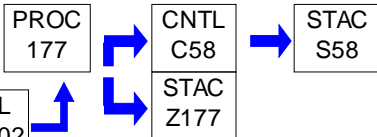
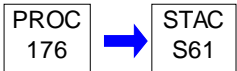
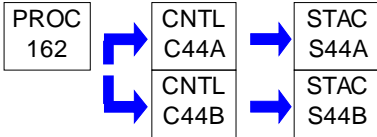
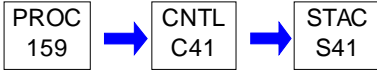


PERMIT MAPS



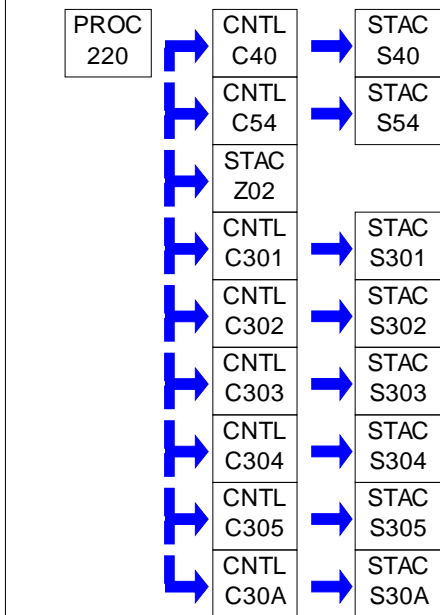
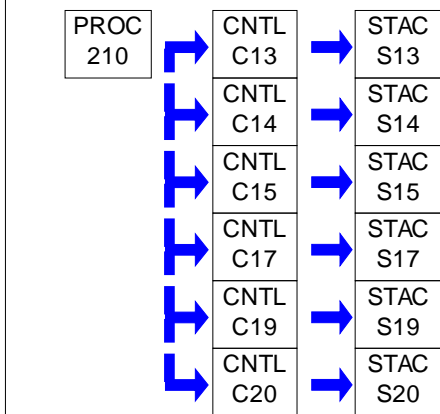
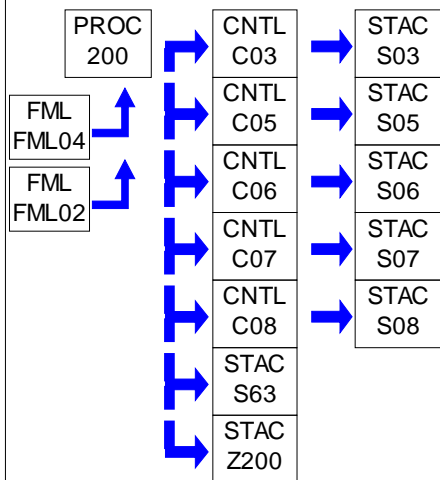


**PERMIT MAPS**



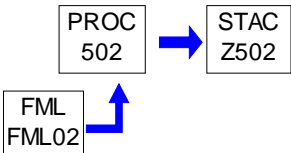
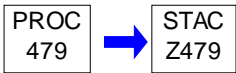
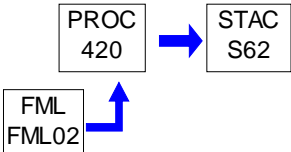
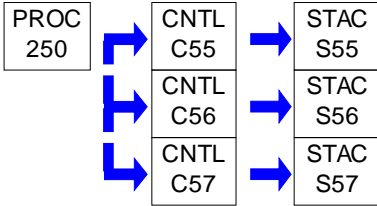
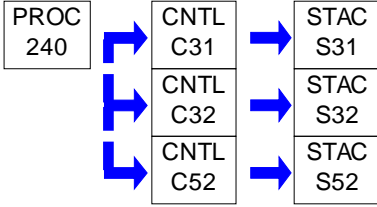
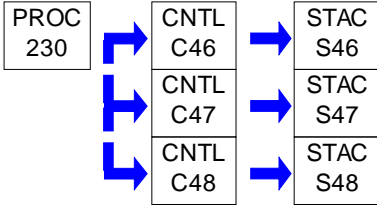


PERMIT MAPS





PERMIT MAPS



**SECTION B. General Title V Requirements****#001 [25 Pa. Code § 121.1]****Definitions**

Words and terms that are not otherwise defined in this permit 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 § 121.7]****Prohibition of Air Pollution**

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

**#003 [25 Pa. Code § 127.512(c)(4)]****Property Rights**

This permit does not convey property rights of any sort, or any exclusive privileges.

**#004 [25 Pa. Code § 127.446(a) and (c)]****Permit Expiration**

This operating permit is issued for a fixed term of five (5) years and shall expire on the date specified on Page 1 of this permit. The terms and conditions of the expired permit shall automatically continue pending issuance of a new Title V permit, provided the permittee has submitted a timely and complete application and paid applicable fees required under 25 Pa. Code Chapter 127, Subchapter I and the Department is unable, through no fault of the permittee, to issue or deny a new permit before the expiration of the previous permit. An application is complete if it contains sufficient information to begin processing the application, has the applicable sections completed and has been signed by a responsible official.

**#005 [25 Pa. Code §§ 127.412, 127.413, 127.414, 127.446(e), 127.503 & 127.704(b)]****Permit Renewal**

(a) An application for the renewal of the Title V permit shall be submitted to the Department at least six (6) months, and not more than 18 months, before the expiration date of this permit. The renewal application is timely if a complete application is submitted to the Department's Regional Air Manager within the timeframe specified in this permit condition.

(b) The application for permit renewal shall include the current permit number, the appropriate permit renewal fee, a description of any permit revisions and off-permit changes that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term. The fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" and submitted with the fee form to the respective regional office.

(c) The renewal application shall also include submission of proof that the local municipality and county, in which the facility is located, have been notified in accordance with 25 Pa. Code § 127.413. The application for renewal of the Title V permit shall also include submission of compliance review forms which have been used by the permittee to update information submitted in accordance with either 25 Pa. Code § 127.412(b) or § 127.412(j).

(d) The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information during the permit renewal process. The permittee shall also promptly provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit.

**#006 [25 Pa. Code §§ 127.450(a)(4) & 127.464(a)]****Transfer of Ownership or Operational Control**

(a) In accordance with 25 Pa. Code § 127.450(a)(4), a change in ownership or operational control of the source shall be treated as an administrative amendment if:

(1) The Department determines that no other change in the permit is necessary;

(2) A written agreement has been submitted to the Department identifying the specific date of the transfer of permit responsibility, coverage and liability between the current and the new permittee; and,

(3) A compliance review form has been submitted to the Department and the permit transfer has been approved by

**SECTION B. General Title V Requirements**

the Department.

(b) In accordance with 25 Pa. Code § 127.464(a), this permit may not be transferred to another person except in cases of transfer-of-ownership which are documented and approved to the satisfaction of the Department.

**#007 [25 Pa. Code § 127.513, 35 P.S. § 4008 and § 114 of the CAA]****Inspection and Entry**

(a) Upon presentation of credentials and other documents as may be required by law for inspection and entry purposes, the permittee shall allow the Department of Environmental Protection or authorized representatives of the Department to perform the following:

- (1) Enter at reasonable times upon the permittee's premises where a Title V source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit;
- (2) Have access to and copy or remove, at reasonable times, records that are kept under the conditions of this permit;
- (3) Inspect at reasonable times, facilities, equipment including monitoring and air pollution control equipment, practices, or operations regulated or required under this permit;
- (4) Sample or monitor, at reasonable times, substances or parameters, for the purpose of assuring compliance with the permit or applicable requirements as authorized by the Clean Air Act, the Air Pollution Control Act, or the regulations promulgated under the Acts.

(b) 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.

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

**#008 [25 Pa. Code §§ 127.25, 127.444, & 127.512(c)(1)]****Compliance Requirements**

(a) The permittee shall comply with the conditions of this permit. Noncompliance with this permit constitutes a violation of the Clean Air Act and the Air Pollution Control Act and is grounds for one (1) or more of the following:

- (1) Enforcement action
- (2) Permit termination, revocation and reissuance or modification
- (3) Denial of a permit renewal application

(b) A person may not cause or permit the operation of a source, which is subject to 25 Pa. Code Article III, unless the source(s) and air cleaning devices identified in the application for the plan approval and operating permit and the plan approval issued to the source are operated and maintained in accordance with specifications in the applications and the conditions in the plan approval and operating permit issued by the Department. A person may not cause or permit the operation of an air contamination source subject to 25 Pa. Code Chapter 127 in a manner inconsistent with good operating practices.

(c) For purposes of Sub-condition (b) of this permit condition, the specifications in applications for plan approvals and operating permits are the physical configurations and engineering design details which the Department determines are essential for the permittee's compliance with the applicable requirements in this Title V permit.

**#009 [25 Pa. Code § 127.512(c)(2)]****Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

**SECTION B. General Title V Requirements****#010 [25 Pa. Code §§ 127.411(d) & 127.512(c)(5)]****Duty to Provide Information**

(a) The permittee shall furnish to the Department, within a reasonable time, information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit.

(b) Upon request, the permittee shall also furnish to the Department copies of records that the permittee is required to keep by this permit, or for information claimed to be confidential, the permittee may furnish such records directly to the Administrator of EPA along with a claim of confidentiality.

**#011 [25 Pa. Code §§ 127.463, 127.512(c)(3) & 127.542]****Reopening and Revising the Title V Permit for Cause**

(a) This Title V permit may be modified, revoked, reopened and reissued or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay a permit condition.

(b) This permit may be reopened, revised and reissued prior to expiration of the permit under one or more of the following circumstances:

(1) Additional applicable requirements under the Clean Air Act or the Air Pollution Control Act become applicable to a Title V facility with a remaining permit term of three (3) or more years prior to the expiration date of this permit. The Department will revise the permit as expeditiously as practicable but not later than 18 months after promulgation of the applicable standards or regulations. No such revision is required if the effective date of the requirement is later than the expiration date of this permit, unless the original permit or its terms and conditions has been extended.

(2) Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator of EPA, excess emissions offset plans for an affected source shall be incorporated into the permit.

(3) The Department or the EPA determines that this permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.

(4) The Department or the Administrator of EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(c) Proceedings to revise this permit shall follow the same procedures which apply to initial permit issuance and shall affect only those parts of this permit for which cause to revise exists. The revision shall be made as expeditiously as practicable.

(d) Regardless of whether a revision is made in accordance with (b)(1) above, the permittee shall meet the applicable standards or regulations promulgated under the Clean Air Act within the time frame required by standards or regulations.

**#012 [25 Pa. Code § 127.543]****Reopening a Title V Permit for Cause by EPA**

As required by the Clean Air Act and regulations adopted thereunder, this permit may be modified, reopened and reissued, revoked or terminated for cause by EPA in accordance with procedures specified in 25 Pa. Code § 127.543.

**#013 [25 Pa. Code § 127.522(a)]****Operating Permit Application Review by the EPA**

The applicant may be required by the Department to provide a copy of the permit application, including the compliance plan, directly to the Administrator of the EPA. Copies of title V permit applications to EPA, pursuant to 25 PA Code §127.522(a), shall be submitted, if required, to the following EPA e-mail box:

R3\_Air\_Apps\_and\_Notices@epa.gov

Please place the following in the subject line: TV [permit number], [Facility Name].

**SECTION B. General Title V Requirements****#014 [25 Pa. Code § 127.541]****Significant Operating Permit Modifications**

When permit modifications during the term of this permit do not qualify as minor permit modifications or administrative amendments, the permittee shall submit an application for significant Title V permit modifications in accordance with 25 Pa. Code § 127.541. Notifications to EPA, pursuant to 25 PA Code §127.522(a), if required, shall be submitted, to the following EPA e-mail box:

R3\_Air\_Apps\_and\_Notices@epa.gov

Please place the following in the subject line: TV [permit number], [Facility Name].

**#015 [25 Pa. Code §§ 121.1 & 127.462]****Minor Operating Permit Modifications**

The permittee may make minor operating permit modifications (as defined in 25 Pa. Code §121.1), on an expedited basis, in accordance with 25 Pa. Code §127.462 (relating to minor operating permit modifications). Notifications to EPA, pursuant to 25 PA Code §127.462(c), if required, shall be submitted, to the following EPA e-mail box:

R3\_Air\_Apps\_and\_Notices@epa.gov

Please place the following in the subject line: TV [permit number], [Facility Name].

**#016 [25 Pa. Code § 127.450]****Administrative Operating Permit Amendments**

(a) The permittee may request administrative operating permit amendments, as defined in 25 Pa. Code §127.450(a). Copies of request for administrative permit amendment to EPA, pursuant to 25 PA Code §127.450(c)(1), if required, shall be submitted to the following EPA e-mail box:

R3\_Air\_Apps\_and\_Notices@epa.gov

Please place the following in the subject line: TV [permit number], [Facility Name].

(b) Upon final action by the Department granting a request for an administrative operating permit amendment covered under §127.450(a)(5), the permit shield provisions in 25 Pa. Code § 127.516 (relating to permit shield) shall apply to administrative permit amendments incorporated in this Title V Permit in accordance with §127.450(c), unless precluded by the Clean Air Act or the regulations thereunder.

**#017 [25 Pa. Code § 127.512(b)]****Severability Clause**

The provisions of this permit are severable, and if any provision of this permit is determined by the Environmental Hearing Board or a court of competent jurisdiction, or US EPA to be invalid or unenforceable, such a determination will not affect the remaining provisions of this permit.

**#018 [25 Pa. Code §§ 127.704, 127.705 & 127.707]****Fee Payment**

(a) The permittee shall pay fees to the Department in accordance with the applicable fee schedules in 25 Pa. Code Chapter 127, Subchapter I (relating to plan approval and operating permit fees). The applicable fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" with the permit number clearly indicated and submitted to the respective regional office.

(b) Emission Fees. The permittee shall, on or before September 1st of each year, pay applicable annual Title V emission fees for emissions occurring in the previous calendar year as specified in 25 Pa. Code § 127.705. The permittee is not required to pay an emission fee for emissions of more than 4,000 tons of each regulated pollutant emitted from the facility.

(c) As used in this permit condition, the term "regulated pollutant" is defined as a VOC, each pollutant regulated under Sections 111 and 112 of the Clean Air Act and each pollutant for which a National Ambient Air Quality Standard has been promulgated, except that carbon monoxide is excluded.



**SECTION B. General Title V Requirements**

(d) Late Payment. Late payment of emission fees will subject the permittee to the penalties prescribed in 25 Pa. Code § 127.707 and may result in the suspension or termination of the Title V permit. The permittee shall pay a penalty of fifty percent (50%) of the fee amount, plus interest on the fee amount computed in accordance with 26 U.S.C.A. § 6621(a)(2) from the date the emission fee should have been paid in accordance with the time frame specified in 25 Pa. Code § 127.705(c).

(e) The permittee shall pay an annual operating permit maintenance fee according to the following fee schedule established in 25 Pa. Code § 127.704(d) on or before December 31 of each year for the next calendar year.

(1) Eight thousand dollars (\$8,000) for calendar years 2021—2025.

(2) Ten thousand dollars (\$10,000) for calendar years 2026—2030.

(3) Twelve thousand five hundred dollars (\$12,500) for the calendar years beginning with 2031.

**#019 [25 Pa. Code §§ 127.14(b) & 127.449]****Authorization for De Minimis Emission Increases**

(a) This permit authorizes de minimis emission increases from a new or existing source in accordance with 25 Pa. Code §§ 127.14 and 127.449 without the need for a plan approval or prior issuance of a permit modification. The permittee shall provide the Department with seven (7) days prior written notice before commencing any de minimis emissions increase that would result from either: (1) a physical change of minor significance under § 127.14(c)(1); or (2) the construction, installation, modification or reactivation of an air contamination source. The written notice shall:

(1) Identify and describe the pollutants that will be emitted as a result of the de minimis emissions increase.

(2) Provide emission rates expressed in tons per year and in terms necessary to establish compliance consistent with any applicable requirement.

The Department may disapprove or condition de minimis emission increases at any time.

(b) Except as provided below in (c) and (d) of this permit condition, the permittee is authorized during the term of this permit to make de minimis emission increases (expressed in tons per year) up to the following amounts without the need for a plan approval or prior issuance of a permit modification:

(1) Four tons of carbon monoxide from a single source during the term of the permit and 20 tons of carbon monoxide at the facility during the term of the permit.

(2) One ton of NO<sub>x</sub> from a single source during the term of the permit and 5 tons of NO<sub>x</sub> at the facility during the term of the permit.

(3) One and six-tenths tons of the oxides of sulfur from a single source during the term of the permit and 8.0 tons of oxides of sulfur at the facility during the term of the permit.

(4) Six-tenths of a ton of PM<sub>10</sub> from a single source during the term of the permit and 3.0 tons of PM<sub>10</sub> at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act or 25 Pa. Code Article III.

(5) One ton of VOCs from a single source during the term of the permit and 5.0 tons of VOCs at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act or 25 Pa. Code Article III.

(c) In accordance with § 127.14, the permittee may install the following minor sources without the need for a plan approval:

(1) Air conditioning or ventilation systems not designed to remove pollutants generated or released from other sources.

(2) Combustion units rated at 2,500,000 or less Btu per hour of heat input.

**SECTION B. General Title V Requirements**

(3) Combustion units with a rated capacity of less than 10,000,000 Btu per hour heat input fueled by natural gas supplied by a public utility, liquefied petroleum gas or by commercial fuel oils which are No. 2 or lighter, viscosity less than or equal to 5.82 c St, and which meet the sulfur content requirements of 25 Pa. Code § 123.22 (relating to combustion units). For purposes of this permit, commercial fuel oil shall be virgin oil which has no reprocessed, recycled or waste material added.

(4) Space heaters which heat by direct heat transfer.

(5) Laboratory equipment used exclusively for chemical or physical analysis.

(6) Other sources and classes of sources determined to be of minor significance by the Department.

(d) This permit does not authorize de minimis emission increases if the emissions increase would cause one or more of the following:

(1) Increase the emissions of a pollutant regulated under Section 112 of the Clean Air Act except as authorized in Subparagraphs (b)(4) and (5) of this permit condition.

(2) Subject the facility to the prevention of significant deterioration requirements in 25 Pa. Code Chapter 127, Subchapter D and/or the new source review requirements in Subchapter E.

(3) Violate any applicable requirement of the Air Pollution Control Act, the Clean Air Act, or the regulations promulgated under either of the acts.

(4) Changes which are modifications under any provision of Title I of the Clean Air Act and emission increases which would exceed the allowable emissions level (expressed as a rate of emissions or in terms of total emissions) under the Title V permit.

(e) Unless precluded by the Clean Air Act or the regulations thereunder, the permit shield described in 25 Pa. Code § 127.516 (relating to permit shield) shall extend to the changes made under 25 Pa. Code § 127.449 (relating to de minimis emission increases).

(f) Emissions authorized under this permit condition shall be included in the monitoring, recordkeeping and reporting requirements of this permit.

(g) Except for de minimis emission increases allowed under this permit, 25 Pa. Code § 127.449, or sources and physical changes meeting the requirements of 25 Pa. Code § 127.14, the permittee is prohibited from making physical changes or engaging in activities that are not specifically authorized under this permit without first applying for a plan approval. In accordance with § 127.14(b), a plan approval is not required for the construction, modification, reactivation, or installation of the sources creating the de minimis emissions increase.

(h) The permittee may not meet de minimis emission threshold levels by offsetting emission increases or decreases at the same source.

**#020 [25 Pa. Code §§ 127.11a & 127.215]****Reactivation of Sources**

(a) The permittee may reactivate a source at the facility that has been out of operation or production for at least one year, but less than or equal to five (5) years, if the source is reactivated in accordance with the requirements of 25 Pa. Code §§ 127.11a and 127.215. The reactivated source will not be considered a new source.

(b) A source which has been out of operation or production for more than five (5) years but less than 10 years may be reactivated and will not be considered a new source if the permittee satisfies the conditions specified in 25 Pa. Code § 127.11a(b).

**#021 [25 Pa. Code §§ 121.9 & 127.216]****Circumvention**

(a) The owner of this Title V facility, 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

**SECTION B. General Title V Requirements**

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 permit, 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.

**#022 [25 Pa. Code §§ 127.402(d) & 127.513(1)]****Submissions**

(a) Reports, test data, monitoring data, notifications and requests for renewal of the permit shall be submitted to the:

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

(b) Any report or notification for the EPA Administrator or EPA Region III should be addressed to:

Enforcement & Compliance Assurance Division  
Air, RCRA and Toxics Branch (3ED21)  
Four Penn Center  
1600 John F. Kennedy Boulevard  
Philadelphia, PA 19103-2852

The Title V compliance certification shall be emailed to EPA at R3\_APD\_Permits@epa.gov.

(c) An application, form, report or compliance certification submitted pursuant to this permit condition shall contain certification by a responsible official as to truth, accuracy, and completeness as required under 25 Pa. Code § 127.402(d). Unless otherwise required by the Clean Air Act or regulations adopted thereunder, this certification and any other certification required pursuant to this permit shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

**#023 [25 Pa. Code §§ 127.441(c) & 127.463(e); Chapter 139; & 114(a)(3), 504(b) of the CAA]****Sampling, Testing and Monitoring Procedures**

(a) The permittee shall perform the emissions monitoring and analysis procedures or test methods for applicable requirements of this Title V permit. In addition to the sampling, testing and monitoring procedures specified in this permit, the Permittee shall comply with any additional applicable requirements promulgated under the Clean Air Act after permit issuance regardless of whether the permit is revised.

(b) The sampling, testing and monitoring required under the applicable requirements of this permit, shall be conducted in accordance with the requirements of 25 Pa. Code Chapter 139 unless alternative methodology is required by the Clean Air Act (including §§ 114(a)(3) and 504(b)) and regulations adopted thereunder.

**#024 [25 Pa. Code § 127.513]****Compliance Certification**

(a) One year after the date of issuance of the Title V permit, and each year thereafter, unless specified elsewhere in the permit, the permittee shall submit to the Department and EPA Region III a certificate of compliance with the terms and conditions in this permit, for the previous year, including the emission limitations, standards or work practices. This certification shall include:

- (1) The identification of each term or condition of the permit that is the basis of the certification.
- (2) The compliance status.
- (3) The methods used for determining the compliance status of the source, currently and over the reporting period.
- (4) Whether compliance was continuous or intermittent.

(b) The compliance certification shall be postmarked or hand-delivered no later than thirty days after each anniversary of

**SECTION B. General Title V Requirements**

the date of issuance of this Title V Operating Permit, or on the submittal date specified elsewhere in the permit, to the Department in accordance with the submission requirements specified in Section B, Condition #022 of this permit. The Title V compliance certification shall be emailed to EPA at R3\_APD\_Permits@epa.gov.

**#025 [25 Pa. Code §§ 127.511 & Chapter 135]****Recordkeeping Requirements**

(a) The permittee shall maintain and make available, upon request by the Department, records of required monitoring information that include the following:

- (1) The date, place (as defined in the permit) and time of sampling or measurements.
- (2) The dates the analyses were performed.
- (3) The company or entity that performed the analyses.
- (4) The analytical techniques or methods used.
- (5) The results of the analyses.
- (6) The operating conditions as existing at the time of sampling or measurement.

(b) The permittee shall retain records of the required monitoring data and supporting information for at least five (5) years from the date of the monitoring sample, measurement, report or application. Supporting information includes the calibration data and maintenance records and original strip-chart recordings for continuous monitoring instrumentation, and copies of reports required by the permit.

(c) The permittee shall maintain and make available to the Department upon request, records including computerized records that may be necessary to comply with the reporting, recordkeeping and emission statement requirements in 25 Pa. Code Chapter 135 (relating to reporting of sources). In accordance with 25 Pa. Code Chapter 135, § 135.5, such records may include records of production, fuel usage, maintenance of production or pollution control equipment or other 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.

**#026 [25 Pa. Code §§ 127.411(d), 127.442, 127.463(e) & 127.511(c)]****Reporting Requirements**

(a) The permittee shall comply with the reporting requirements for the applicable requirements specified in this Title V permit. In addition to the reporting requirements specified herein, the permittee shall comply with any additional applicable reporting requirements promulgated under the Clean Air Act after permit issuance regardless of whether the permit is revised.

(b) Pursuant to 25 Pa. Code § 127.511(c), the permittee shall submit reports of required monitoring at least every six (6) months unless otherwise specified in this permit. Instances of deviations (as defined in 25 Pa. Code § 121.1) from permit requirements shall be clearly identified in the reports. The reporting of deviations shall include the probable cause of the deviations and corrective actions or preventative measures taken, except that sources with continuous emission monitoring systems shall report according to the protocol established and approved by the Department for the source. The required reports shall be certified by a responsible official.

(c) Every report submitted to the Department under this permit condition shall comply with the submission procedures specified in Section B, Condition #022(c) of this permit.

(d) Any records, reports or information obtained by the Department or referred to in a public hearing shall be made available to the public by the Department except for such records, reports or information for which the permittee has shown cause that the documents should be considered confidential and protected from disclosure to the public under Section 4013.2 of the Air Pollution Control Act and consistent with Sections 112(d) and 114(c) of the Clean Air Act and 25 Pa. Code § 127.411(d). The permittee may not request a claim of confidentiality for any emissions data generated for the Title V facility.

**SECTION B. General Title V Requirements****#027 [25 Pa. Code § 127.3]****Operational Flexibility**

The permittee is authorized to make changes within the Title V facility in accordance with the following provisions in 25 Pa. Code Chapter 127 which implement the operational flexibility requirements of Section 502(b)(10) of the Clean Air Act and Section 6.1(i) of the Air Pollution Control Act:

- (1) Section 127.14 (relating to exemptions)
- (2) Section 127.447 (relating to alternative operating scenarios)
- (3) Section 127.448 (relating to emissions trading at facilities with federally enforceable emissions caps)
- (4) Section 127.449 (relating to de minimis emission increases)
- (5) Section 127.450 (relating to administrative operating permit amendments)
- (6) Section 127.462 (relating to minor operating permit amendments)
- (7) Subchapter H (relating to general plan approvals and operating permits)

**#028 [25 Pa. Code §§ 127.441(d), 127.512(i) and 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 Title V facility. The permittee shall submit the RMP to the federal Environmental Protection Agency according to the following schedule and requirements:

- (1) The permittee shall submit the first RMP to a central point specified by EPA 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 EPA 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 permit 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.

(d) If the Title V facility is subject to 40 CFR Part 68, as part of the certification required under this permit, the permittee shall:

- (1) Submit a compliance schedule for satisfying the requirements of 40 CFR Part 68 by the date specified in 40 CFR § 68.10(a); or,
- (2) Certify that the Title V facility is in compliance with all requirements of 40 CFR Part 68 including the registration and submission of the RMP.

**SECTION B. General Title V Requirements**

(e) If the Title V facility is subject to 40 CFR Part 68, the permittee shall maintain records supporting the implementation of an accidental release program for five (5) years in accordance with 40 CFR § 68.200.

(f) When the Title V facility is subject to the accidental release program requirements of Section 112(r) of the Clean Air Act and 40 CFR Part 68, appropriate enforcement action will be taken by the Department if:

(1) The permittee fails to register and submit the RMP or a revised plan pursuant to 40 CFR Part 68.

(2) The permittee fails to submit a compliance schedule or include a statement in the compliance certification required under Section B, Condition #026 of this permit that the Title V facility is in compliance with the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68, and 25 Pa. Code § 127.512(i).

**#029 [25 Pa. Code § 127.512(e)]****Approved Economic Incentives and Emission Trading Programs**

No permit revision shall be required under approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this Title V permit.

**#030 [25 Pa. Code §§ 127.516, 127.450(d), 127.449(f) & 127.462(g)]****Permit Shield**

(a) The permittee's compliance with the conditions of this permit shall be deemed in compliance with applicable requirements (as defined in 25 Pa. Code § 121.1) as of the date of permit issuance if either of the following applies:

(1) The applicable requirements are included and are specifically identified in this permit.

(2) The Department specifically identifies in the permit other requirements that are not applicable to the permitted facility or source.

(b) Nothing in 25 Pa. Code § 127.516 or the Title V permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act, including the authority of the Administrator of the EPA provided thereunder.

(2) The liability of the permittee for a violation of an applicable requirement prior to the time of permit issuance.

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act.

(4) The ability of the EPA to obtain information from the permittee under Section 114 of the Clean Air Act.

(c) Unless precluded by the Clean Air Act or regulations thereunder, final action by the Department incorporating a significant permit modification in this Title V Permit shall be covered by the permit shield at the time that the permit containing the significant modification is issued.

**#031 [25 Pa. Code §135.3]****Reporting**

(a) The permittee shall submit by March 1 of each year an annual emissions report for the preceding calendar year. The report shall include information for all active previously reported sources, new sources which were first operated during the preceding calendar year, and sources modified during the same period which were not previously reported. All air emissions from the facility should be estimated and reported.

(b) A source owner or operator may request an extension of time from the Department for the filing of an annual emissions report, and the Department may grant the extension for reasonable cause.

**#032 [25 Pa. Code §135.4]****Report Format**

Emissions reports shall contain sufficient information to enable the Department to complete its emission inventory. Emissions reports shall be made by the source owner or operator in a format specified by the Department.

**SECTION C. Site Level Requirements****I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.1]****Prohibition of certain fugitive emissions**

No person shall permit the emission into the outdoor atmosphere of any fugitive air contaminant from a source other than the following:

- (a) Construction or demolition of buildings or structures.
- (b) Grading, paving, and maintenance of roads and streets.
- (c) 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.
- (d) Clearing of land.
- (d) Stockpiling of materials.
- (f) Open burning operations.
- (g) Sources and classes of sources other than those identified above, for which the operator has obtained a determination from the Department that fugitive emissions from the source, after appropriate control, meet the following requirements:
  - (1) The emissions are of minor significance with respect to causing air pollution;
  - (2) The emissions are not preventing or interfering with the attainment or maintenance of any ambient air standard.

**# 002 [25 Pa. Code §123.2]****Fugitive particulate matter**

No person shall emit particulate matter into the outdoor atmosphere from a source specified in 25 Pa Code Section 123.1 if the emissions are visible at the point the emissions pass outside the persons property.

**# 003 [25 Pa. Code §123.31]****Limitations**

No person shall 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.

**# 004 [25 Pa. Code §123.41]****Limitations**

No person shall 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:

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

**# 005 [25 Pa. Code §123.42]****Exceptions**

The emission limitations of 25 Pa Code Section 123.41 shall not apply when:

- (a) The presence of uncombined water is the only reason for failure of the emission to meet the limitation;
- (b) The emission results from the operation of equipment used solely to train and test persons in observing the opacity of visible emissions;
- (c) The emission results from sources specified in Site Level Requirements, Condition #001.

**SECTION C. Site Level Requirements****# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee may not offer for sale, deliver for use, exchange in trade or permit the use commercial fuel oil in a nonair basin, which contain sulfur in excess of:

(1) No. 2 - 0.5% sulfur by weight

(b) Beginning July 1, 2016, the sulfur content of commercial fuel oil shall not exceed:

(1) No. 2 - 500 ppm (0.05% by weight)

(c) Commercial fuel oil that was stored in this Commonwealth by the ultimate consumer prior to July 1, 2016, which met the applicable maximum allowable sulfur content for commercial fuel oil through June 30, 2016, in subparagraph (a) at the time it was stored, may be used by the ultimate consumer in this Commonwealth on and after July 1, 2016.

(d) Beginning July 1, 2016, the Department may temporarily suspend or increase the applicable maximum allowable sulfur content for a commercial fuel oil set forth in subparagraph (a) if the following occur:

(1) The Department receives a written request at the address specified in 25 Pa Code 123.22(h) for a suspension or increase on the basis that compliant commercial fuel oil is not reasonably available in a nonair basin area.

The request must include the following:

(i) The nonair basin county or counties for which the suspension or increase is requested.

(ii) The reason compliant commercial fuel oil is not reasonably available.

(iii) The duration of time for which the suspension or increase is requested and the justification for the requested duration.

(2) The Department determines that an insufficient quantity of compliant commercial fuel oil is reasonably available in the nonair basin area and that the circumstances leading to the insufficiency are due to events that could not have been reasonably foreseen or prevented and are not due to lack of prudent planning on the part of the transferor of the commercial fuel oil into or within the specified nonair basin area.

(3) The Department approves the request, in writing, prior to the transferor distributing the noncompliant commercial fuel oil into or within the specified nonair basin area.

(e) The Department will limit a suspension or increase in the applicable maximum allowable sulfur content granted under subparagraph (d) to the shortest duration in which adequate supplies of compliant commercial fuel oil can be made reasonably available, but in no case longer than 60 days from the date the Department grants the suspension or increase.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 129.91, RACT & 25 Pa Code §123.22]

**II. TESTING REQUIREMENTS.****# 007 [25 Pa. Code §123.43]****Measuring techniques**

Visible air contaminants may be measured using either of the following:

(a) A device approved by the Department and maintained to provide accurate opacity measurements.

(b) Observers, trained and certified, to measure plume opacity with the naked eye or with the aid of any devices approved by the Department.

**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall conduct an annual particulate (Method 5) and PM-10 (Method 201A & 202) source test on any six



**SECTION C. Site Level Requirements**

collectors in the following Source Groups: SG02 Raw Mills, SG03 Finish Mills, SG04 Raw Materials, SG06 Clinker Coolers and SG09 Stack Sources.

Note: Each collector within the Source Groups shall be tested during each five year period starting with the calendar year 2010. The permittee shall notify the Department of which collectors will be tested during a calendar year by March 1 of the year the tests are to occur.

**# 009 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

For any testing, the permittee shall:

(a) Pursuant to 25 Pa. Code § 139.3 at least 90 calendar days prior to commencing an emissions testing program, unless otherwise approved in writing by DEP, a test protocol shall be submitted to the Department for review and approval. Unless otherwise approved in writing by DEP, the permittee shall not conduct the test that is the subject of the protocol, until the protocol has been approved by DEP.

(b) Pursuant to 25 Pa. Code § 139.3 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 appropriate Regional Office. Notification shall also be sent to the Division of Source Testing and Monitoring. Notification shall not be made without prior receipt of a protocol acceptance letter from the Department.

(c) Pursuant to 25 Pa. Code Section 139.53(a)(3) within 15 calendar days after completion of the on-site testing portion of an emission test program, if a complete test report has not yet been submitted, an electronic mail notification shall be sent to the Department's Division of Source Testing and Monitoring and the appropriate Regional Office indicating the completion date of the on-site testing.

(d) Pursuant to 40 CFR Part 60.8(a), 40 CFR Part 61.13(f) and 40 CFR Part 63.7(g) a complete test report shall be submitted to the Department no later than 60 calendar days after completion of the on-site testing portion of an emission test program. For those tests being conducted pursuant to 40 CFR Part 61, a complete test report shall be submitted within 31 days after completion of the test

(e) Pursuant to 25 Pa. Code Section 139.53(b) 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 non-compliance with all applicable permit conditions. The summary results will include, at a minimum, the following information:

1. A statement that the owner or operator has reviewed the report from the emissions testing body and agrees with the findings.
2. Permit number(s) and condition(s) which are the basis for the evaluation.
3. Summary of results with respect to each applicable permit condition.
4. Statement of compliance or non-compliance with each applicable permit condition.

(f) Pursuant to 25 Pa. Code § 139.3 to all submittals shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.

(g) All testing shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection.

(h) Pursuant to 25 Pa. Code Section 139.53(a)(1) and 139.53(a)(3) 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. If internet submittal cannot be accomplished, one digital copy of each submittal shall be made to each of the following:

Regional Office:

Digital copy: RA-epscstacktesting@pa.gov

**SECTION C. Site Level Requirements**

Bureau of Air Quality:  
Digital copy: RA-epstacktesting@pa.gov

(h)(1) A complete paper copy of each submittal shall be made to PA DEP, Bureau of Air Quality, Division of Source Testing and Monitoring, 400 Market Street, 12th Floor Rachael Carson State Office Building, Harrisburg, PA 17105-8468

(h)(2) A paper copy of (only) the cover letter/page (for both protocols and reports) and summary table (for reports only), of each submittal shall be made to Program Manager, Air Quality Program, PA DEP Southcentral Regional Office, 909 Elmerton Avenue, Harrisburg, PA 17110

(i) The permittee shall ensure all federal reporting requirements contained in the applicable subpart of 40 CFR are followed, including timelines more stringent than those contained herein. In the event of an inconsistency or any conflicting requirements between state and the federal, the most stringent provision, term, condition, method or rule shall be used by default.

**# 010 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The Department reserves the right to require exhaust stack testing of the source(s) as necessary during the permit term to verify emissions for purposes including emission fees, malfunctions or permit condition violations.

**# 011 [25 Pa. Code §139.1]****Sampling facilities.**

Upon the request of the Department, the permittee 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.

**III. MONITORING REQUIREMENTS.****# 012 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall conduct a daily inspection during regular business workdays around the plant periphery during the daylight hours when the plant is in production to detect visible emissions, fugitive visible emissions and malodorous emissions as follows:

(a) Visible emissions sources in excess of the limits stated in Section C, Condition #004, Section D and Section E of this permit. Visible emissions may be measured according to the methods specified in Section C, Condition #007. As an alternative, plant personnel who observe such visible emissions shall report each incident to the Department within four hours of the occurrence and arrange for a certified observer to read the visible emissions.

(b) Presence of fugitive visible emissions beyond the plant property boundaries, as stated in Section C, Condition #002.

(c) Presence of malodorous air contaminants beyond the plant property boundaries as stated in Section C, Condition #003.

**# 013 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) Each shipment of virgin No. 2 fuel oil to be used in any of the sources in this permit shall be accompanied by a shipping receipt from the supplier certifying the sulfur content.

(b) The permittee shall obtain from the supplier of #2 fuel oil to the facility a certification of the heating value and sulfur content of the fuels on a semiannual basis. These certifications shall be maintained by the permittee.

(c) The permittee shall obtain from the supplier of natural gas to the facility a certification of the sulfur content and heating value of the gas on a semiannual basis. These certifications shall be maintained by the permittee.

**SECTION C. Site Level Requirements****IV. RECORDKEEPING REQUIREMENTS.****# 014 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall maintain records of the maintenance procedures conducted on all particulate control devices. These records shall include information on bag replacement on fabric collectors.

**# 015 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall maintain records of the daily inspections referenced in Section C, Condition #012. The records shall include, at a minimum, the following informations:

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

The permittee shall retain these records for a minimum of five (5) years. The records shall be made available to the Department upon its request.

**# 016 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall record the pressure drop across all fabric collectors, cyclones or other devices used to control the emissions of particulate at the facility. At a minimum these recordings shall be taken once per week, while the sources and collectors are in operation. The recordings shall be maintained in a manner approved by the Department.

**V. REPORTING REQUIREMENTS.****# 017 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall report malfunctions to the Department. A malfunction is any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions. Malfunctions shall be reported as follows:

(a) Malfunctions which pose an imminent danger to public health, safety, welfare and the environment, shall be immediately reported to the Department by telephone. The telephone report of such malfunctions shall occur no later than two hours after discovery of the incident. Telephone reports can be made to the Reading District Office at (610) 916-0100 during normal business hours, or to the Department's Emergency Hotline at any time. The Emergency Hotline phone number is changed/updated periodically. The current Emergency Hotline phone number can be found at <https://www.dep.pa.gov/About/Regional/SouthcentralRegion/Pages/default.aspx>. The permittee shall submit a written report of instances of such malfunctions to the Department within three (3) days of the telephone report.

(b) Unless otherwise required by this permit, any other malfunction that is not subject to the reporting requirements of subsection (a) above, shall be reported to the Department and EPA, in writing, as provided in 40 CFR Part 63, Section 63.10(d)(5).

**VI. WORK PRACTICE REQUIREMENTS.****# 018 [25 Pa. Code §123.1]****Prohibition of certain fugitive emissions**

The permittee shall take all reasonable actions to prevent particulate matter from a source identified in Condition #001 from becoming airborne. These actions shall include, but not limited to, the following:

- (a) 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.
- (b) Application of asphalt, oil, water or suitable chemicals on dirt roads, material stockpiles and other surfaces which may give rise to airborne dusts.

**SECTION C. Site Level Requirements**

(c) Paving and maintenance of roadways where and when possible.

(d) 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 Sections 123.1 and 123.2].

(e) Utilize a road sweeper as needed to remove and control road dust accumulations on paved roadways.

**# 019 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall not operate any sources which are equipped with a particulate control device unless the control device is operational. All particulate control devices shall be maintained and operated in accordance with good air pollution practices.

**# 020 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Equipment (a differential manometer or equivalent, as approved by the Department), shall be provided and maintained on all particulate controls so that at any time the pressure drop across the collector can be measured.

**VII. ADDITIONAL REQUIREMENTS.****# 021 [25 Pa. Code §127.218.]****PALs.**

In accordance with 25 Pa Code 127.218(g)(10), the emissions from a new source that requires a plan approval shall be the minimum attainable through the use of BAT. A physical change or change in method of operation at an existing emissions unit will not be subject to BAT requirements of this chapter unless the emissions unit is modified so that the fixed capital cost of new components exceeds 50% of the fixed capital cost that would be required to construct a comparable entirely new emissions unit.

**# 022 [25 Pa. Code §127.441]****Operating permit terms and conditions.****PAL Termination Provisions**

(a) Lehigh may request termination of pollutant specific PAL provisions as specified in Source Group Nos. SG10 through SG21 at any time during the term of Plan Approval/Operating Permit No. 06-05002-PAL after 24 consecutive months of operation from the effective date.

(1) The request for termination of a pollutant specific PAL provision shall be initiated through a plan approval application in accordance with 25 Pa Code §127.12 & §127.218(b).

(2) An application for a plan approval to terminate the PAL provisions as specified in Source Group Nos. SG10 through SG21 shall address the requirements of 40 CFR §52.21(aa)(9)(i) through (v) that are associated with the expiration of a PAL, as applicable.

**# 023 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

Pursuant to Section C, Category VIII. COMPLIANCE CERTIFICATION below, the permittee shall forward the annual compliance certification report to U.S. EPA electronically, in lieu of a hard copy version, to the following email address (unless otherwise specified by DEP or EPA): 'R3\_APD\_Permits@epa.gov'.

**# 024 [25 Pa. Code §129.14]****Open burning operations**

(a) The permittee shall not conduct open burning of materials in such a manner that:

(1) The emissions are visible, at any time, at the point such emissions pass outside the property of the person on whose land the open burning is being conducted.

(2) Malodorous air contaminants from the open burning are detectable outside the property of the person on whose land the open burning is being conducted.

**SECTION C. Site Level Requirements**

- (3) The emissions interfere with the reasonable enjoyment of life and property.
  - (4) The emissions cause damage to vegetation or property.
  - (5) The emissions are or may be deleterious to human or animal health.
- (b) Exceptions. The requirements of Subsection (a) 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 official.
  - (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 solely for recreational or ceremonial purposes.
  - (5) A fire set solely for cooking food.
- (c) This permit does not constitute authorization to burn solid waste pursuant to Section 610 (3) of the Solid Waste Management Act, 35 P.S. Section 6018.610 (3), or any other provision of the Solid Waste Management Act.

**VIII. COMPLIANCE CERTIFICATION.**

The permittee shall submit within thirty days of 01/01/2021 a certificate of compliance with all permit terms and conditions set forth in this Title V permit as required under condition #026 of section B of this permit, and annually thereafter.

**IX. COMPLIANCE SCHEDULE.**

No compliance milestones exist.

**\*\*\* Permit Shield In Effect \*\*\***

**SECTION D. Source Level Requirements**

Source ID: 440

Source Name: WASH HOUSE BOILER

Source Capacity/Throughput:	2.700	MMBTU/HR	
	19.700	Gal/HR	#2 FUEL OIL
	2,700.000	CF/HR	NATURAL GAS

Conditions for this source occur in the following groups:

- SG10 PMPAL
- SG11 PM10 PAL
- SG12 PM2.5 PAL
- SG13 CO PAL
- SG14 NOX PAL
- SG15 SOX PAL
- SG16 VOC PAL
- SG19 LEAD PAL
- SG20 FED PAL REQ
- SG21 STATE PAL REQ
- SG22

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.22]****Combustion units**

No person may permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO<sub>2</sub>, from a combustion unit in excess of the rate of 4 pounds per million BTUs of heat input over any 1-hour period.

**# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall limit the particulate emissions from the boiler to the following:

- (a) Particulate (Method 5): 0.4 pounds per million BTUs
- (b) PM-10 (Method 201A & 202): 0.4 pounds per million BTUs

[Additional authority for this condition is derived from 25 PA Code Chapter 123]

**II. TESTING REQUIREMENTS.**

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

**SECTION D. Source Level Requirements****IV. RECORDKEEPING REQUIREMENTS.**

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

**VI. WORK PRACTICE REQUIREMENTS.**

**# 003 [25 Pa. Code §127.444]**

**Compliance requirements.**

The permittee shall operate and maintain the Wash House Boiler in accordance with good air pollution control practices.

[Additional authority for this permit condition is derived from 25 Pa Code § 129.91, RACT]

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

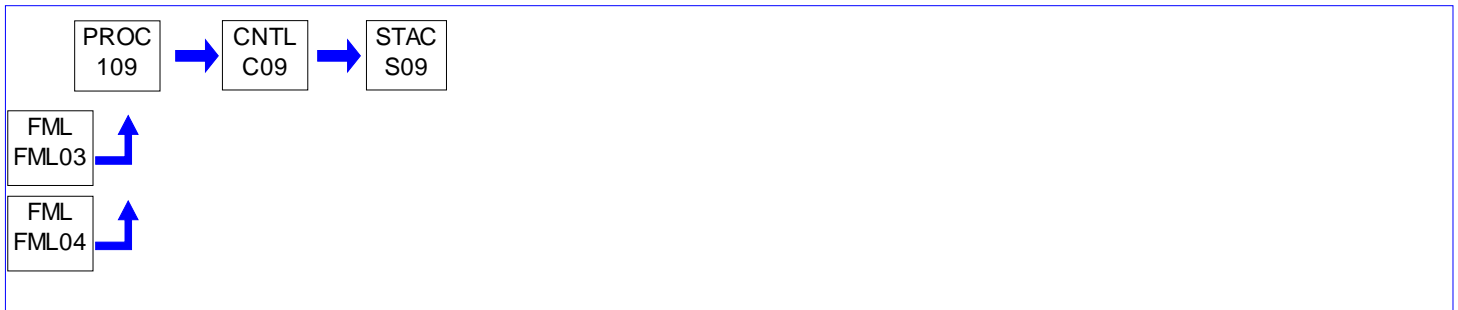
Source ID: 109

Source Name: RAW GRIND #1 &amp; HEATER

Source Capacity/Throughput:	150.000 Tons/HR	KILN FEED
	9,910.000 CF/HR	NATURAL GAS
	73.000 Gal/HR	#2 FUEL OIL
	70.000 Gal/HR	WDLF

Conditions for this source occur in the following groups:

- SG02 RAW MILLS
- SG05A AMENDED MACT
- SG10 PM PAL
- SG11 PM10 PAL
- SG12 PM2.5 PAL
- SG13 CO PAL
- SG14 NOX PAL
- SG15 SOX PAL
- SG16 VOC PAL
- SG17 HF PAL
- SG19 LEAD PAL
- SG20 FED PAL REQ
- SG21 STATE PAL REQ
- SG25

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).





## SECTION D. Source Level Requirements

### V. REPORTING REQUIREMENTS.

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

### VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

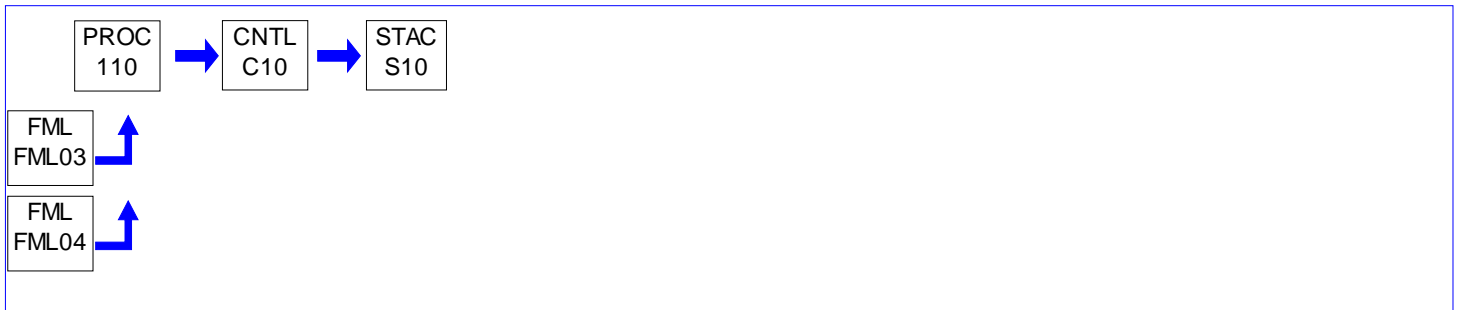
Source ID: 110

Source Name: RAW GRIND #2 &amp; HEATER

Source Capacity/Throughput:	73.000 Gal/HR	#2 FUEL OIL
	100.000 Tons/HR	KILN FEED
	9,910.000 CF/HR	NATURAL GAS
	70.000 Gal/HR	WDLF

Conditions for this source occur in the following groups:

- SG02 RAW MILLS
- SG05A AMENDED MACT
- SG10 PM PAL
- SG11 PM10 PAL
- SG12 PM2.5 PAL
- SG13 CO PAL
- SG14 NOX PAL
- SG15 SOX PAL
- SG16 VOC PAL
- SG17 HF PAL
- SG19 LEAD PAL
- SG20 FED PAL REQ
- SG21 STATE PAL REQ
- SG25

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).



## SECTION D. Source Level Requirements

### V. REPORTING REQUIREMENTS.

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

### VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

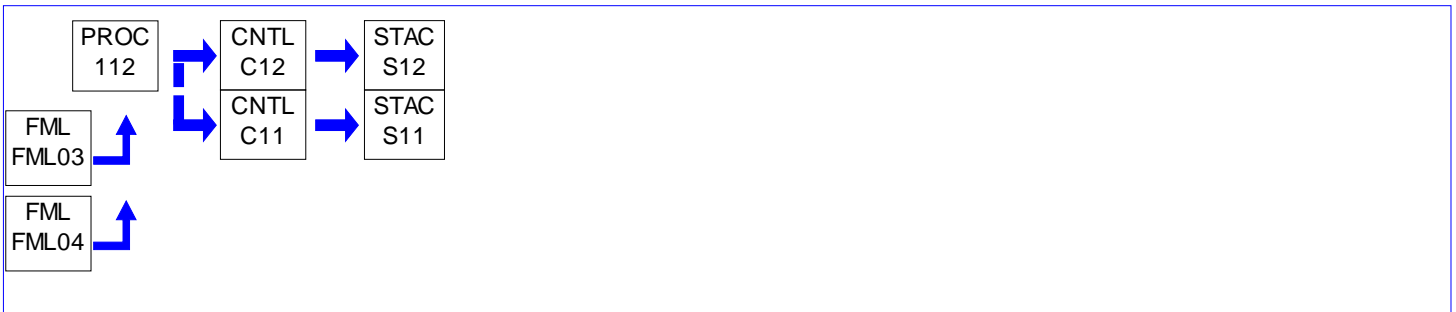
Source ID: 112

Source Name: RAW GRIND #3 &amp; HEATER

Source Capacity/Throughput:	133.000 Gal/HR	#2 FUEL OIL
	250.000 Tons/HR	KILN FEED
	18,050.000 CF/HR	NATURAL GAS
	125.000 Gal/HR	WDLF

Conditions for this source occur in the following groups:

- SG02 RAW MILLS
- SG05A AMENDED MACT
- SG10 PM PAL
- SG11 PM10 PAL
- SG12 PM2.5 PAL
- SG13 CO PAL
- SG14 NOX PAL
- SG15 SOX PAL
- SG16 VOC PAL
- SG17 HF PAL
- SG19 LEAD PAL
- SG20 FED PAL REQ
- SG21 STATE PAL REQ
- SG25

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).



## SECTION D. Source Level Requirements

### V. REPORTING REQUIREMENTS.

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

### VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***



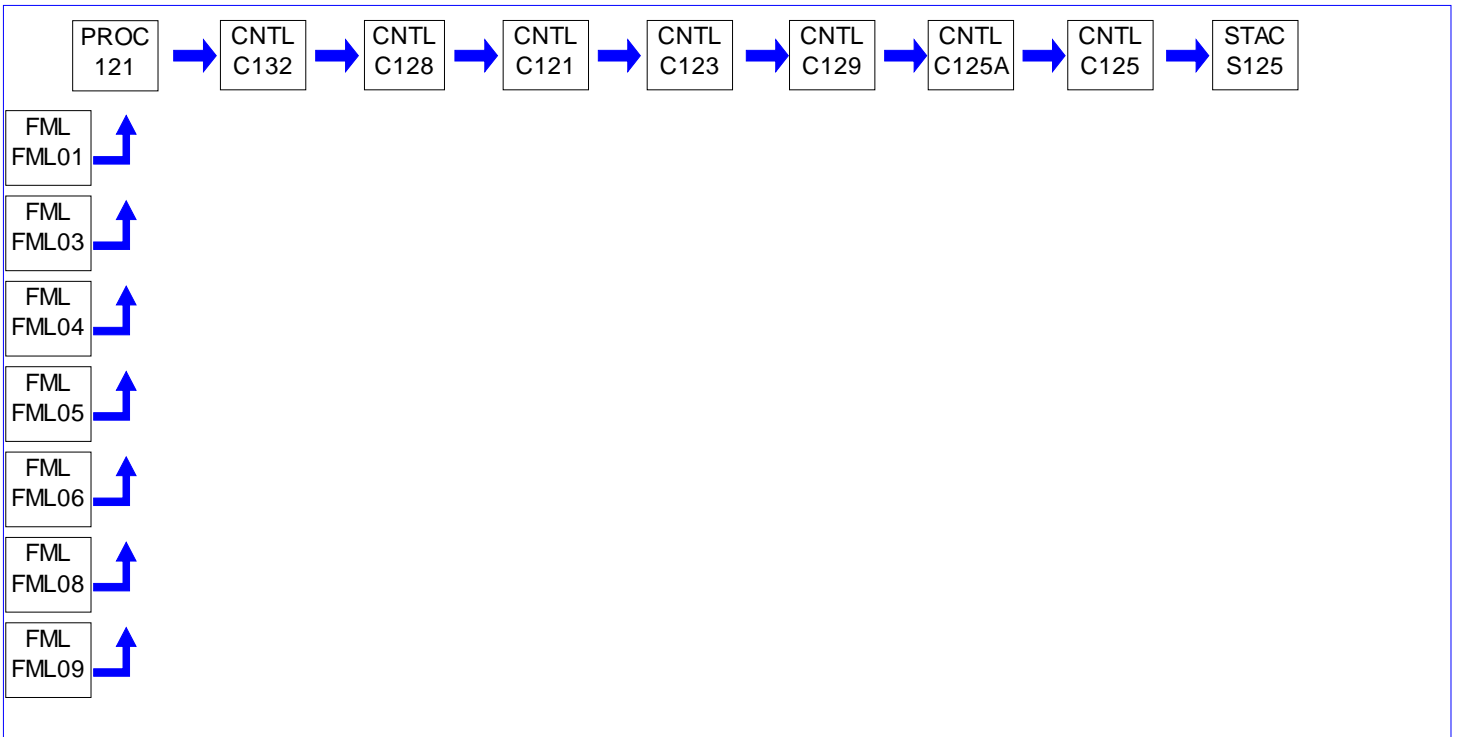
**SECTION D. Source Level Requirements**

Source ID: 121

Source Name: PORTLAND CEMENT KILN #1

Source Capacity/Throughput:	90.000 Tons/HR	CEMENT CLINKER
	600.000 Gal/HR	#2 FUEL OIL
	359,000.000 CF/HR	NATURAL GAS
	15.000 Tons/HR	BITUMIOUS COAL & COKE
	5.750 Tons/HR	WDSF (TIRES)
	600.000 Gal/HR	WDLF
	3.000 Tons/HR	WDSF (WASTE WOOD)
	15.000 Tons/HR	ANTHRACITE COAL
	3.000 Tons/HR	ENGINEERED FUEL

- Conditions for this source occur in the following groups:
- SG01 CEMENT KILNS
  - SG05A AMENDED MACT
  - SG10 PM PAL
  - SG11 PM10 PAL
  - SG12 PM2.5 PAL
  - SG13 CO PAL
  - SG14 NOX PAL
  - SG15 SOX PAL
  - SG16 VOC PAL
  - SG17 HF PAL
  - SG18 H2SO4 PAL
  - SG19 LEAD PAL
  - SG20 FED PAL REQ
  - SG21 STATE PAL REQ
  - SG24
  - SG25
  - SG26





## SECTION D. Source Level Requirements

### I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

### VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***



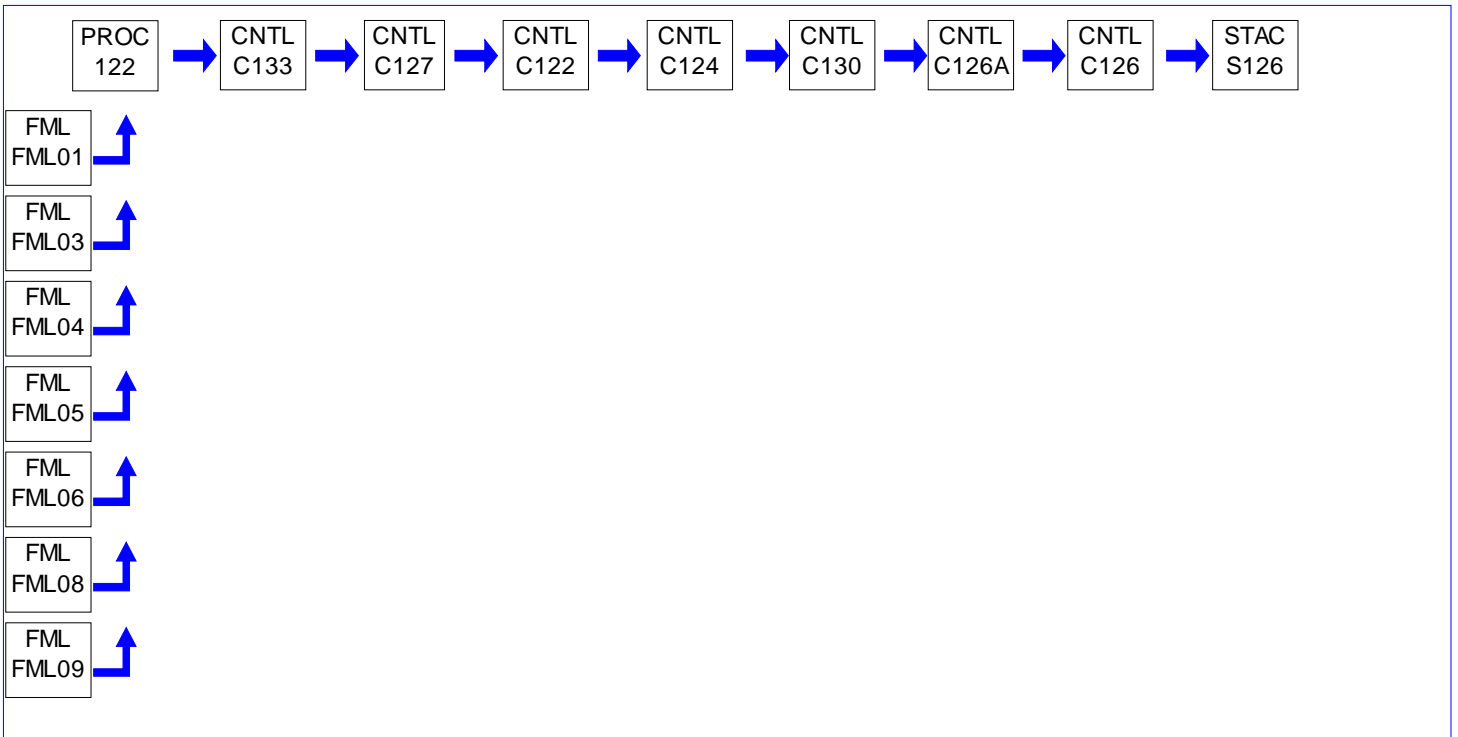
**SECTION D. Source Level Requirements**

Source ID: 122

Source Name: PORTLAND CEMENT KILN #2

Source Capacity/Throughput:	90.000 Tons/HR	CEMENT CLINKER
	15.000 Tons/HR	BITUMINOUS COAL & COKE
	600.000 Gal/HR	#2 FUEL OIL
	359,000.000 CF/HR	NATURAL GAS
	5.750 Tons/HR	WDSF (TIRES)
	600.000 Gal/HR	WDLF
	3.000 Tons/HR	WDSF (WASTE WOOD)
	15.000 Tons/HR	ANTHRACITE COAL
	3.000 Tons/HR	ENGINEERED FUEL

- Conditions for this source occur in the following groups:
- SG01 CEMENT KILNS
  - SG05A AMENDED MACT
  - SG10 PM PAL
  - SG11 PM10 PAL
  - SG12 PM2.5 PAL
  - SG13 CO PAL
  - SG14 NOX PAL
  - SG15 SOX PAL
  - SG16 VOC PAL
  - SG17 HF PAL
  - SG18 H2SO4 PAL
  - SG19 LEAD PAL
  - SG20 FED PAL REQ
  - SG21 STATE PAL REQ
  - SG24
  - SG25
  - SG26







## SECTION D. Source Level Requirements

### I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

### VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

Source ID: 125

Source Name: CLINKER COOLER #1

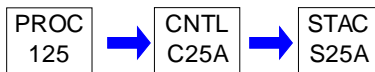
Source Capacity/Throughput:

90.000 Tons/HR

CEMENT CLINKERS

Conditions for this source occur in the following groups:

- SG05A AMENDED MACT
- SG06 CLINKER COOLERS
- SG10 PM PAL
- SG11 PM10 PAL
- SG12 PM2.5 PAL
- SG20 FED PAL REQ
- SG21 STATE PAL REQ
- SG24

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

Source ID: 126

Source Name: CLINKER COOLER #2

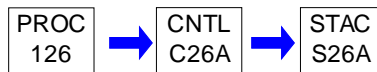
Source Capacity/Throughput:

90.000 Tons/HR

CEMENT CLINKERS

Conditions for this source occur in the following groups:

- SG05A AMENDED MACT
- SG06 CLINKER COOLERS
- SG10 PM PAL
- SG11 PM10 PAL
- SG12 PM2.5 PAL
- SG20 FED PAL REQ
- SG21 STATE PAL REQ
- SG24

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

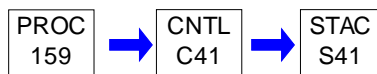
Source ID: 159

Source Name: FINISH GRIND #1 MILL

Source Capacity/Throughput: 100.000 Tons/HR CEMENT CLINKER

Conditions for this source occur in the following groups:

- SG03 FINISH MILLS
- SG05A AMENDED MACT
- SG10 PM PAL
- SG11 PM10 PAL
- SG12 PM2.5 PAL
- SG19 LEAD PAL
- SG20 FED PAL REQ
- SG21 STATE PAL REQ

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

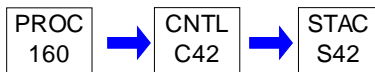
Source ID: 160

Source Name: FINISH GRIND #3 MILL

Source Capacity/Throughput: 140.000 Tons/HR CEMENT CLINKER

Conditions for this source occur in the following groups:

- SG03 FINISH MILLS
- SG05A AMENDED MACT
- SG10 PM PAL
- SG11 PM10 PAL
- SG12 PM2.5 PAL
- SG19 LEAD PAL
- SG20 FED PAL REQ
- SG21 STATE PAL REQ

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

Source ID: 162

Source Name: FINISH GRIND #2 MILL

Source Capacity/Throughput: 140.000 Tons/HR CEMENT CLINKER

Conditions for this source occur in the following groups:

- SG03 FINISH MILLS
- SG05A AMENDED MACT
- SG10 PM PAL
- SG11 PM10 PAL
- SG12 PM2.5 PAL
- SG19 LEAD PAL
- SG20 FED PAL REQ
- SG21 STATE PAL REQ

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).



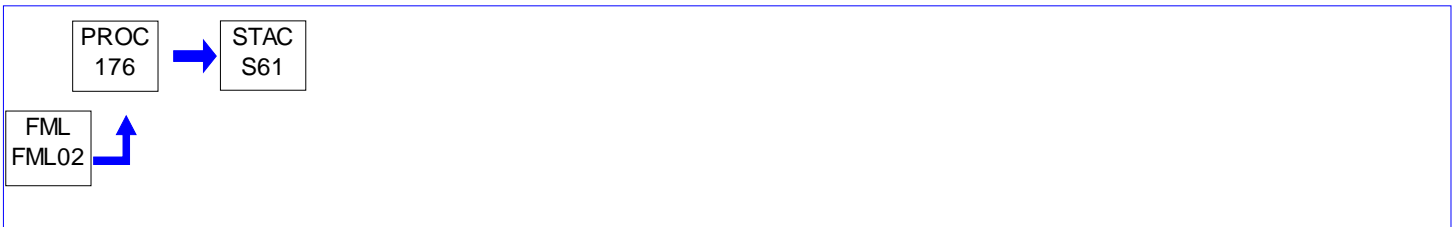
**SECTION D. Source Level Requirements**

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

Source ID: 176                      Source Name: FIRE PUMP (EMERGENCY)  
 Source Capacity/Throughput:              75.000 Gal/HR                      DIESEL

Conditions for this source occur in the following groups: SG10 PM PAL  
 SG11 PM10 PAL  
 SG12 PM2.5 PAL  
 SG13 CO PAL  
 SG14 NOX PAL  
 SG15 SOX PAL  
 SG16 VOC PAL  
 SG19 LEAD PAL  
 SG20 FED PAL REQ  
 SG21 STATE PAL REQ  
 SG23

**I. RESTRICTIONS.****Emission Restriction(s).**

**# 001 [25 Pa. Code §123.22]**  
**Combustion units**

The permittee may not permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of sulfur oxides, expressed as SO<sub>2</sub>, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

**# 002 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

- (a) The permittee shall limit the particulate (Method 5) emissions from the source to 0.04 grains per dry standard cubic foot.
- (b) The permittee shall limit the PM-10 (Method 201A & 202) emissions from the pump to 0.04 grains per dry standard cubic foot.

**Operation Hours Restriction(s).**

**# 003 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

The fire pump shall not be operated for more than 500 hours during any consecutive 12-month period.

[Additional authority for this permit condition is derived from 25 Pa Code Section 129.93, RACT]

**II. TESTING REQUIREMENTS.**

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



**SECTION D. Source Level Requirements****IV. RECORDKEEPING REQUIREMENTS.**

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

**VI. WORK PRACTICE REQUIREMENTS.**

**# 004 [25 Pa. Code §127.444]**

**Compliance requirements.**

The permittee shall operate and maintain the fire pump in accordance with good air pollution control practices.

[Additional authority for this permit condition is derived from 25 Pa Code Section 129.93, RACT]

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

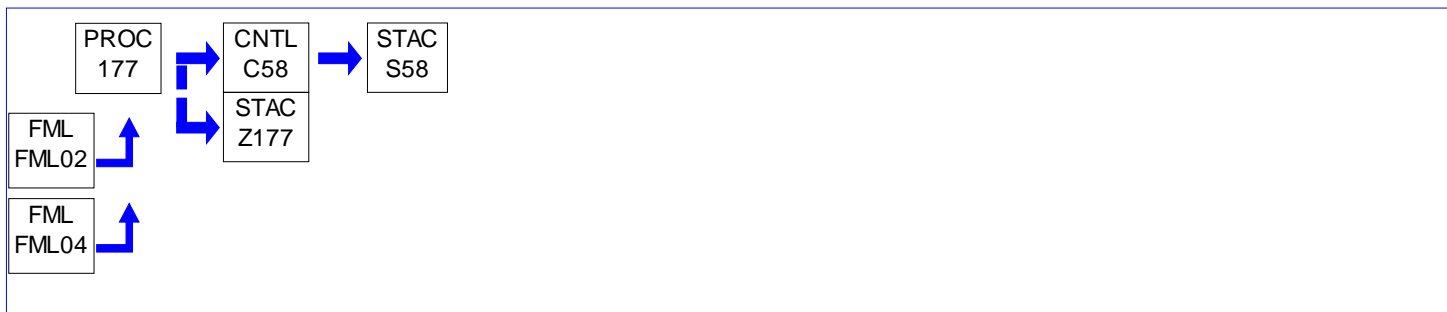
Source ID: 177

Source Name: RAW MATERIAL DRYER (SLAG)

Source Capacity/Throughput:	120.000 Tons/HR	RAW MATERIAL
	365.000 Gal/HR	#2 FUEL OIL
	46,952.000 CF/HR	NATURAL GAS

Conditions for this source occur in the following groups:

- SG04 RAW MATERIALS
- SG05A AMENDED MACT
- SG08 STORAGE PILES
- SG10 PMPAL
- SG11 PM10 PAL
- SG12 PM2.5 PAL
- SG13 CO PAL
- SG14 NOX PAL
- SG15 SOX PAL
- SG16 VOC PAL
- SG20 FED PAL REQ
- SG21 STATE PAL REQ
- SG25

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) Effective January 1, 2017, the permittee shall limit the emissions of nitrogen oxides (NOx) from Source ID 177 to less than 5 tons per year, based on any consecutive 12-month period.

(b) The 12-month rolling total emissions tonnage shall be calculated by summing the total tons of NOX emitted from Source ID 177 during the most recent complete month and the previous 11 months.

**II. TESTING REQUIREMENTS.**

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



## SECTION D. Source Level Requirements

### V. REPORTING REQUIREMENTS.

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

### VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

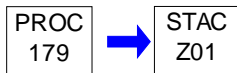
**SECTION D. Source Level Requirements**

Source ID: 179

Source Name: PLANT ROADWAYS

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SG10 PMPAL  
 SG11 PM10 PAL  
 SG12 PM2.5 PAL  
 SG20 FED PAL REQ  
 SG21 STATE PAL REQ

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall take the following actions when inspections of the plant find particulate or fugitive emissions from the roadways:

- (a) Investigate the source of the emissions.
- (b) Initiate the appropriate operating procedures.
- (c) Record the problem, results of the investigation, corrective actions taken and the results.

**VII. ADDITIONAL REQUIREMENTS.****# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

This source includes all plant roadways, paved and unpaved.



**SECTION D. Source Level Requirements**

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

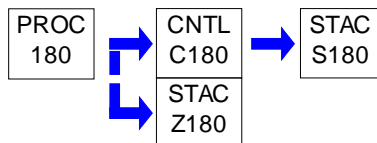
Source ID: 180

Source Name: RAW MATERIAL (SLAG/GYPSUM) TRANSFER

Source Capacity/Throughput:

Conditions for this source occur in the following groups:

- SG04 RAW MATERIALS
- SG05A AMENDED MACT
- SG10 PM PAL
- SG11 PM10 PAL
- SG12 PM2.5 PAL
- SG20 FED PAL REQ
- SG21 STATE PAL REQ

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

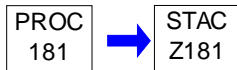
Source ID: 181

Source Name: SYNTHETIC GYPSUM SYSTEM

Source Capacity/Throughput:

Conditions for this source occur in the following groups:

- SG05A AMENDED MACT
- SG10 PMPAL
- SG11 PM10 PAL
- SG12 PM2.5 PAL
- SG20 FED PAL REQ
- SG21 STATE PAL REQ

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

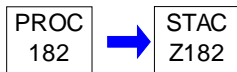
Source ID: 182

Source Name: COAL HANDLING SYSTEM

Source Capacity/Throughput:

Conditions for this source occur in the following groups:

- SG05A AMENDED MACT
- SG08 STORAGE PILES
- SG10 PMPAL
- SG11 PM10 PAL
- SG12 PM2.5 PAL
- SG20 FED PAL REQ
- SG21 STATE PAL REQ

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***



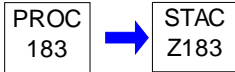
**SECTION D. Source Level Requirements**

Source ID: 183

Source Name: TIRE HANDLING SYSTEM

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SG08 STORAGE PILES

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***



**SECTION D. Source Level Requirements**

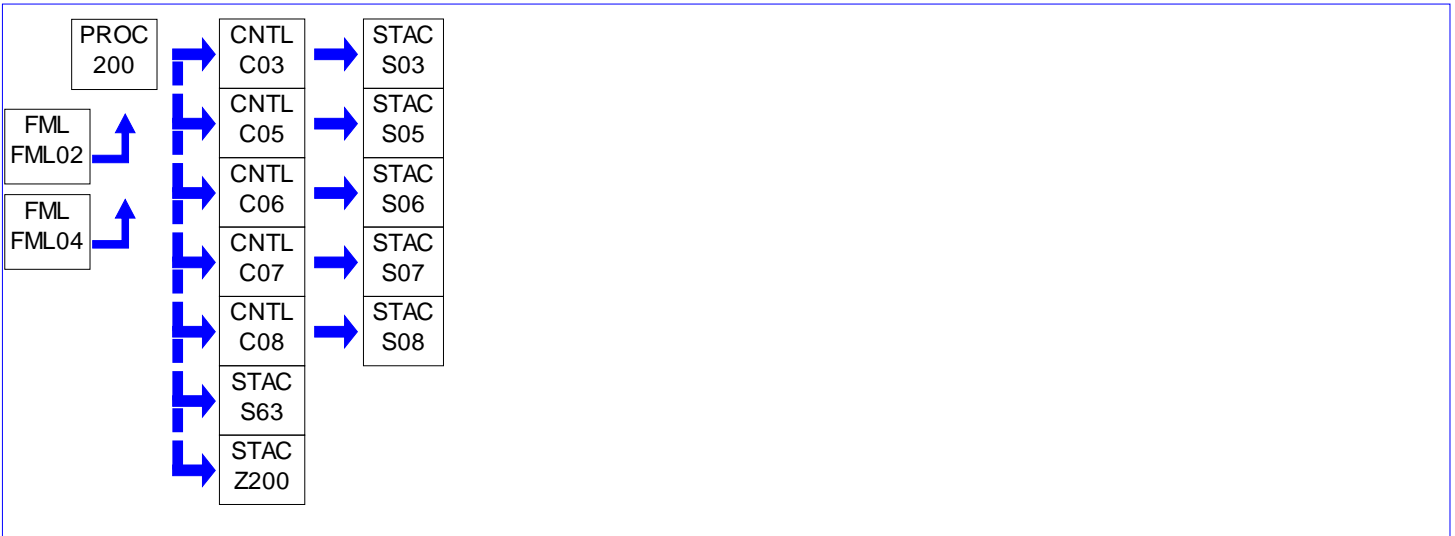
Source ID: 200

Source Name: RAW MATERIAL HANDLING

Source Capacity/Throughput:	1,200.000 Tons/HR	RAW MATERIAL
	100.000 CF/HR	NATURAL GAS
	50.000 Gal/HR	#2 FUEL OIL

Conditions for this source occur in the following groups:

- SG04 RAW MATERIALS
- SG05A AMENDED MACT
- SG08 STORAGE PILES
- SG10 PMPAL
- SG11 PM10 PAL
- SG12 PM2.5 PAL
- SG13 CO PAL
- SG14 NOX PAL
- SG15 SOX PAL
- SG16 VOC PAL
- SG19 LEAD PAL
- SG20 FED PAL REQ
- SG21 STATE PAL REQ



**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).



## SECTION D. Source Level Requirements

### IV. RECORDKEEPING REQUIREMENTS.

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

### VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***



**SECTION D. Source Level Requirements**

Source ID: 210

Source Name: KILN FEED

Source Capacity/Throughput: 1,200.000 Tons/HR KILN FEED

Conditions for this source occur in the following groups: SG05A AMENDED MACT  
SG09 STACK SOURCES  
SG10 PM PAL  
SG11 PM10 PAL  
SG12 PM2.5 PAL  
SG20 FED PAL REQ  
SG21 STATE PAL REQ



**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).



## SECTION D. Source Level Requirements

### VI. WORK PRACTICE REQUIREMENTS.

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

### VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***



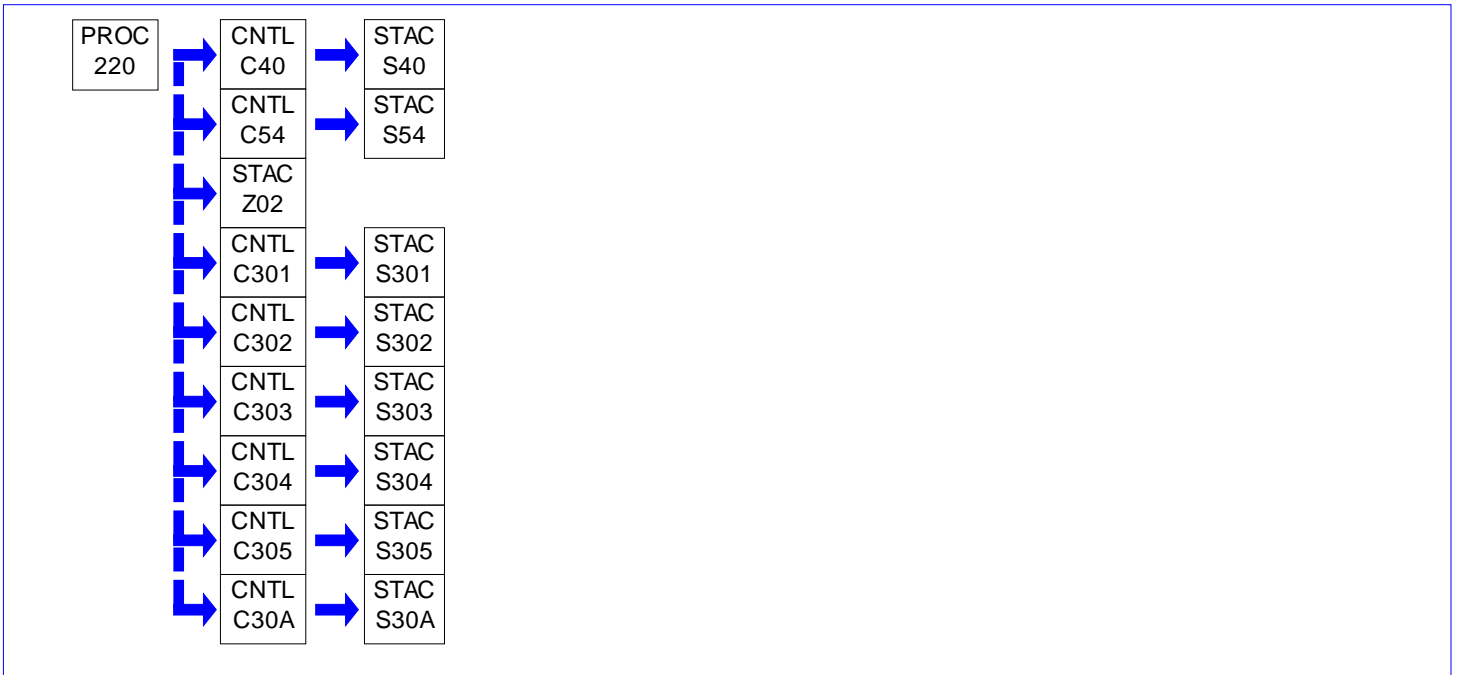
**SECTION D. Source Level Requirements**

Source ID: 220

Source Name: CLINKER HANDLING & STORAGE

Source Capacity/Throughput: 380.000 Tons/HR CLINKER & OTHERS

Conditions for this source occur in the following groups: SG05A AMENDED MACT  
SG08 STORAGE PILES  
SG09 STACK SOURCES  
SG10 PM PAL  
SG11 PM10 PAL  
SG12 PM2.5 PAL  
SG20 FED PAL REQ  
SG21 STATE PAL REQ



**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).



## SECTION D. Source Level Requirements

### V. REPORTING REQUIREMENTS.

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

### VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

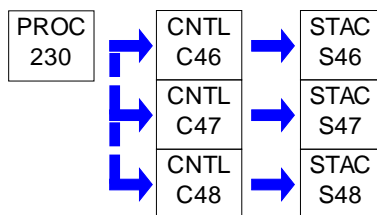
**SECTION D. Source Level Requirements**

Source ID: 230

Source Name: CEMENT STORAGE

Source Capacity/Throughput: 990.000 Tons/HR CEMENT MATERIALS

Conditions for this source occur in the following groups: SG05A AMENDED MACT  
 SG09 STACK SOURCES  
 SG10 PM PAL  
 SG11 PM10 PAL  
 SG12 PM2.5 PAL  
 SG20 FED PAL REQ  
 SG21 STATE PAL REQ

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).





**SECTION D. Source Level Requirements**

**\*\*\* Permit Shield in Effect. \*\*\***

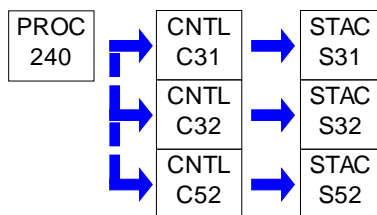
**SECTION D. Source Level Requirements**

Source ID: 240

Source Name: BULK LOADING

Source Capacity/Throughput: 1,600.000 Tons/HR CEMENT

Conditions for this source occur in the following groups: SG05A AMENDED MACT  
 SG09 STACK SOURCES  
 SG10 PM PAL  
 SG11 PM10 PAL  
 SG12 PM2.5 PAL  
 SG20 FED PAL REQ  
 SG21 STATE PAL REQ

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).



**SECTION D. Source Level Requirements**

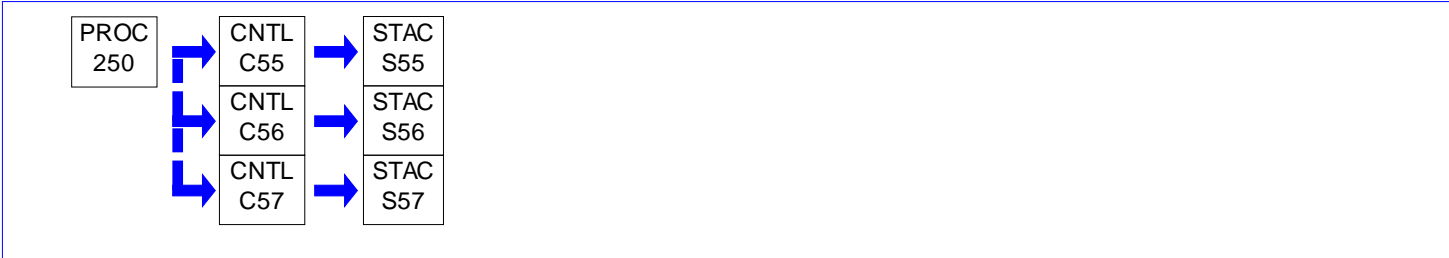
**\*\*\* Permit Shield in Effect. \*\*\***



**SECTION D. Source Level Requirements**

Source ID: 250                      Source Name: CEMENT PACKAGING PLANT  
Source Capacity/Throughput:      550.000 Tons/HR                      CEMENT

Conditions for this source occur in the following groups: SG05A AMENDED MACT  
SG09 STACK SOURCES  
SG10 PM PAL  
SG11 PM10 PAL  
SG12 PM2.5 PAL  
SG20 FED PAL REQ  
SG21 STATE PAL REQ



**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).



**SECTION D. Source Level Requirements**

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

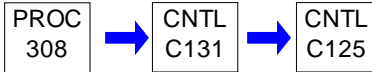
Source ID: 308

Source Name: KILN LIME BIN #1

Source Capacity/Throughput:

Conditions for this source occur in the following groups:

- SG01 CEMENT KILNS
- SG05A AMENDED MACT
- SG10 PMPAL
- SG11 PM10 PAL
- SG12 PM2.5 PAL
- SG20 FED PAL REQ
- SG21 STATE PAL REQ

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V 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 permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

Source ID: 420

Source Name: AUX KILN DRIVE

Source Capacity/Throughput:

5.850 Gal/HR

#2 FUEL OIL

Conditions for this source occur in the following groups:

- SG10 PM PAL
- SG11 PM10 PAL
- SG12 PM2.5 PAL
- SG13 CO PAL
- SG14 NOX PAL
- SG15 SOX PAL
- SG16 VOC PAL
- SG19 LEAD PAL
- SG20 FED PAL REQ
- SG21 STATE PAL REQ
- SG23

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall limit the particulate emissions to the following:

- (a) Particulate (Method 5) - 0.04 grains per dry standard cubic foot
- (b) PM-10 (Method 201A & 202) - 0.04 grains per dry standard cubic foot

[Additional authority for this condition is derived from 25 PA Code Section 123.13]

**# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall limit the emissions to the outside atmosphere of sulfur oxides, expressed as sulfur dioxide, to 500 parts per million, by volume, dry basis.

[Additional authority for this condition is derived from 25 PA Code Section 123.21]

**# 003 [25 Pa. Code §127.444]****Compliance requirements.**

The permittee shall operate and maintain each auxiliary kiln drive engine in accordance with good air pollution control practices.

[Additional authority for this permit condition is derived from 25 PA Code Section 129.93, RACT]

**Operation Hours Restriction(s).****# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The Auxiliary Kiln Drive shall not be operated for more than 500 hours during any consecutive 12-month period.

[Additional authority for this permit condition is derived from 25 PA Code Section 129.93, RACT]



## SECTION D. Source Level Requirements

### II. TESTING REQUIREMENTS.

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

### VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***



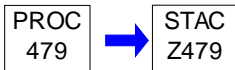
**SECTION D. Source Level Requirements**

Source ID: 479

Source Name: MISC COLD CLEANERS

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SG16 VOC PAL  
SG21 STATE PAL REQ

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall limit the emissions of VOCs from the various cold cleaning machines to 0.06 pounds per hour-square foot of opening.

**# 002 [25 Pa. Code §129.63]****Degreasing operations**

The permittee shall not use in a cold cleaning machine any solvent with a vapor pressure of 1.0 millimeter of mercury (mm Hg) or greater and containing greater than 5% VOC by weight, measured at 20°C (68°F) containing VOCs.

The above requirement does not apply:

- (a) To cold cleaning machines used in extreme cleaning service.
- (b) If the permittee demonstrates, and the Department approves in writing, that compliance with these conditions will result in unsafe operating conditions.
- (c) To immersion cold cleaning machines with a freeboard ratio equal to or greater than 0.75.

**Throughput Restriction(s).****# 003 [25 Pa. Code §129.63]****Degreasing operations**

Any immersion cold cleaning machines shall have a freeboard ratio of 0.50 or greater.

**II. TESTING REQUIREMENTS.**

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

**IV. RECORDKEEPING REQUIREMENTS.****# 004 [25 Pa. Code §129.63]****Degreasing operations**

The permittee shall maintain for at least two (2) years and shall provide to the Department, on request, the following information:

- (a) The name and address of the solvent supplier.

**SECTION D. Source Level Requirements**

- (b) The type of solvent including the product or vendor identification number.
- (c) The vapor pressure of the solvent measured in mm Hg at 20°C (68°F).

An invoice, bill of sale, certificate that corresponds to a number of sales, Material Safety Data Sheet (MSDS), or other appropriate documentation acceptable to the Department may be used to comply with this section.

**V. REPORTING REQUIREMENTS.**

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

**VI. WORK PRACTICE REQUIREMENTS.****# 005 [25 Pa. Code §129.63]****Degreasing operations**

The permittee shall for immersion cold cleaning machines and remote reservoir cold cleaning machines:

(1) Have a permanent, conspicuous label summarizing the operating requirements below:

(a) Waste solvent shall be collected and stored in closed containers. The closed containers may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container.

(b) Flushing of parts using a flexible hose or other flushing device shall be performed only within the cold cleaning machine. The solvent spray shall be a solid fluid stream, not an atomized or shower spray.

(c) Sponge, fabric, wood, leather, paper products and other absorbent materials may not be cleaned in the cold cleaning machine.

(d) Air agitated solvent baths may not be used.

(e) Spills during solvent transfer and use of the cold cleaning machine shall be cleaned-up immediately.

(2) In addition, the label shall include shall include the following discretionary good operating practices:

(a) Cleaned parts should be drained at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping, or rotating, the parts should be positioned so that solvent drains directly back to the cold cleaning machine.

(b) When a pump-agitated solvent bath is used, the agitator should be operated to produce a rolling motion of the solvent with no observable splashing of the solvent against the tank walls or the parts being cleaned.

(c) Work area fans should be located and positioned so that they do not blow across the opening of the degreaser unit.

**# 006 [25 Pa. Code §129.63]****Degreasing operations**

The immersion cold cleaning machines shall be equipped with a cover that shall be closed at all times except during cleaning of parts or the addition or removal of solvent. For remote reservoir cold cleaning machines which drain directly into the solvent storage reservoir, a perforated drain with a diameter of not more than six (6) inches shall constitute an acceptable cover.

**VII. ADDITIONAL REQUIREMENTS.****# 007 [25 Pa. Code §129.63]****Degreasing operations**

The permittee that operates a parts washer or cold cleaning machines that use two gallons or more of solvent containing greater than 5% VOC content by weight for the cleaning of metal parts shall comply with the requirements listed in this



**SECTION D. Source Level Requirements**

section.

**\*\*\* Permit Shield in Effect. \*\*\***

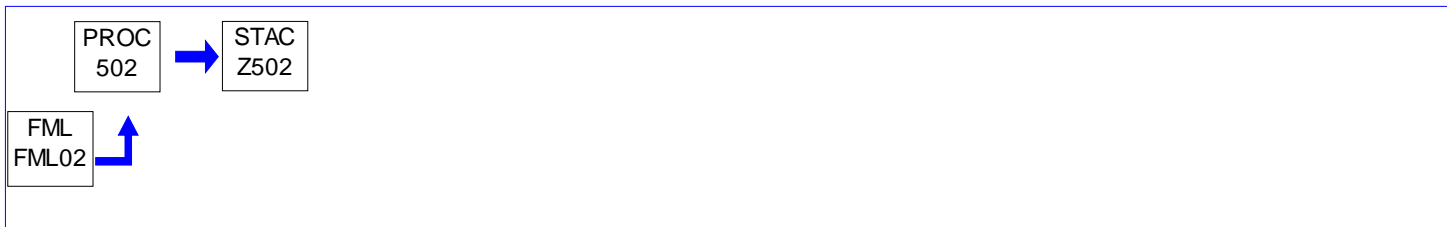
**SECTION D. Source Level Requirements**

Source ID: 502

Source Name: 550 HP AIR COMPRESSOR

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SG25

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) Effective January 1, 2017, the permittee shall limit the emissions of nitrogen oxides (NOx) from Source ID 502 to less than 5 tons per year, based on any consecutive 12-month period.

(b) Effective January 1, 2017, the permittee shall limit the emissions of volatile organic compounds (VOC) from Source ID 502 to less than 2.7 tons per year, based on any consecutive 12-month period.

(c) Each 12-month rolling total emissions tonnage shall be calculated by summing the total tons of NOX/VOC emitted from Source ID 502 during the most recent complete month and the previous 11 months.

**II. TESTING REQUIREMENTS.**

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

**IV. RECORDKEEPING REQUIREMENTS.****# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee, at a minimum, shall retain the following records:

- (1) Operating hours, daily
- (2) Calculated NOx emissions - monthly & 12-month rolling total
- (3) Calculated VOC emissions - monthly & 12-month rolling total
- (4) Emission factor used & source of emission factor (testing, AP-42, etc)

(b) The permittee shall retain these records for a minimum of five (5) years and shall make them available to the Department upon its request.

**V. REPORTING REQUIREMENTS.**

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



## SECTION D. Source Level Requirements

### VI. WORK PRACTICE REQUIREMENTS.

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

### VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: SG01 CEMENT KILNS

Group Description: Kilns (2)

Sources included in this group

ID	Name
121	PORTLAND CEMENT KILN #1
122	PORTLAND CEMENT KILN #2
308	KILN LIME BIN #1

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.13]****Processes**

No person may permit the emission into the outdoor atmosphere of particulate matter, at any time, either in excess of the rate calculated by the formula listed below 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:

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

where:

A = Allowable emissions in pounds per hour.

E = Emission index = F x W pounds per hour.

F = Process factor in pounds per unit, and

W = Production or charging rate in units per hour.

The factor F for Portland Cement Clinker Production (kilns) is 150 pounds per ton of dry solid feed.

**# 002 [25 Pa. Code §123.21]****General**

The permittee may not permit the emission into the outdoor atmosphere of sulfur dioxide from a source in a manner that the concentration of sulfur oxides, expressed as SO<sub>2</sub>, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall comply with the following limits on each kiln:

(1) NO<sub>x</sub> emissions shall not exceed 313.8 lb NO<sub>x</sub>/hr (30-day average, rolling by 1-day)

(2) SO<sub>x</sub> emissions shall not exceed 67.7 lb/hr (30-day average, rolling by 1-day)

(b) The above NO<sub>x</sub> emission limit supersedes the previous limit of 367.7 lb NO<sub>x</sub>/hr (30-day average, rolling by 1-day) on each kiln.

[Additional authority for this permit condition is derived from the Regional Haze/BART rule under 40 CFR Sections 51.300 through 51.309]

**# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Pursuant to the Best Available Technology (BAT) provisions of 25 Pa. Code Section 127.1, the permittee shall not allow the emission into the outdoor atmosphere of total particulate matter (PM<sub>10</sub>) from the ACI silo or the shuttled dust silo in a manner that the concentration of total PM<sub>10</sub> (filterable & condensable) in the effluent gas exceeds 0.01 grain per dry standard cubic foot.

[Additional authority for this permit condition is derived from PA 06-05002L]

**SECTION E. Source Group Restrictions.****# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall limit the ammonia slip from each SNCR system to 10 ppm<sub>dv</sub>, corrected to 7 percent oxygen.

[Additional authority for this permit condition is derived from PA 06-05002K]

**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall not accept at the facility any engineered fuel exceeding the following limits:

- (1) Arsenic - 298 ppm, dry weight basis
- (2) Beryllium - 206 ppm, dry weight basis
- (3) Cadmium - 19 ppm, dry weight basis
- (4) Chromium - 340 ppm, dry weight basis
- (5) Lead - 340 ppm, dry weight basis
- (6) Manganese - 15,800 ppm, dry weight basis
- (7) Mercury - 3.1 ppm, dry weight basis
- (8) Nickel - 730 ppm, dry weight basis
- (9) Chlorine - 9,080 ppm, dry weight basis
- (10) Fluorine - 300 ppm, dry weight basis
- (11) Sulfur - 61,300 ppm, dry weight basis
- (12) Total Halogens - 9,080 ppm, dry weight basis

(b) The as fired heat content of the engineered fuel shall be greater than 5,000 btu/lb.

[Additional authority for this permit condition is derived from PA 06-05002M]

**Fuel Restriction(s).****# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall limit the types of fuel fired in the kilns to the following:

- (a) Bituminous coal (which may include coke)
- (b) No. 2 fuel Oil
- (c) WDLF
- (d) Natural Gas
- (e) Whole Tires (WDSF)
- (f) Waste Wood (WDSF)
- (g) Engineered Fuel
- (h) Anthracite Coal

[Additional authority for this permit condition is derived from PA 06-05002N]

**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall limit the sulfur content of the fuels fired in the kilns to the following:

- (a) Bituminous Coal - 5.0 percent by weight
- (b) Waste Wood - 0.6 percent by weight
- (c) WDLF - 0.6 percent by weight
- (d) Anthracite Coal - 5.0 percent by weight

[Additional authority for this permit condition is derived from PA 06-05002N]

**SECTION E. Source Group Restrictions.****# 009 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The only waste derived solid fuels (WDSF) permitted for use in the kilns are as follows:

- (a) Whole tires as used for passenger cars, trucks, commercial trucks and buses: Tires may only be fired through each mid-kiln injection port.
- (b) Waste wood: Waste wood may only be fired through the pneumatic conveyor and firing tube, independent of the coal system, at the clinker end of each kiln.

**# 010 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee is permitted to fire either Virgin No. 2 fuel oil or the specific recycled/reprocessed Oils [waste derived liquid fuel (WDLF)] identified in this permit in the Portland Cement Kilns No. 1 and No.2. The permittee is only permitted to use recycled/reprocessed oil (WDLF) as supplied by Tri-State Industrial Fuels, Inc. and/or International Recovery Corporation unless prior approval is received from the Department.

Any request for approval of a new supplier shall include the following:

- (a) Name and address of the new supplier  
 (b) Analysis of the supplier's oil with the items identified in Condition #007 below.  
 (c) BTU rating of the oil

[Additional authority for this condition is derived from 25 Pa. Code Section 129.91, RACT]

**# 011 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall not accept at the facility any recycled/reprocessed oil (WDLF) which is represented by the oil supplier as failing to meet the following standards, or for which the permittee does not have documentation from the oil supplier regarding the following standards:

Constituent/Property	Limitation Level	Analytical Technique*
Arsenic (As)	<=5.0 mg/kg	SW-846 Method (ICP/AA)
Cadmium (Cd)	<=2.0 mg/kg	SW-846 Method (ICP/AA)
Chromium (Cr)	<=10.0 mg/kg	SW-846 Method (ICP/AA)
Lead (Pb)	<=100.0 mg/kg	SW-846 Method (ICP/AA)
TX	<= 1000 mg/kg	SW-846 Method 9076
PCB**	not detectable	SW-846 Method (H2SO4 ex./GCw/elec.cap.)
Flash Point	>=140°F	ASTM D93
Ash	<=2.0%	

\*Alternative methods may be used when approved in writing by the Department.

\*\*PCBs shall not be present in a quantifiable level, defined in 40 CFR 761.1 as 2 micrograms per gram from any resolvable gas chromatographic peak, i.e. 2 mg/kg.

The recycled/reprocessed oil (WDLF) may not contain detectable levels of pesticides and/or herbicides.

[Additional authority for this condition is derived from 25 Pa. Code Section 129.91, RACT]

**Throughput Restriction(s).****# 012 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee is permitted to fire waste derived solid fuel (WDSF) in the form of tires in the following manner:



**SECTION E. Source Group Restrictions.**

- (a) At the mid-kiln ports to a maximum of 31 percent (monthly average) of the heat input (maximum of 55.6 mmbtu/hr) to each kiln.
- (b) At the mid-kiln port to a maximum of 50 percent (monthly average) of the heat input (maximum of 139 mmbtu/hr) to each kiln provided compliance is demonstrated for all applicable emission restrictions to the Department.

**# 013 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

- (a) The permittee shall limit the maximum firing rate of waste wood (WDSF) at the front end of the kiln to 3.0 tons per hour for each kiln (monthly average).
- (b) The permittee may increase this maximum limit provided it can be shown to the Department's satisfaction that the kilns can operate at the higher rates in a sustained manner and all emission restrictions can be achieved as shown through testing.

**# 014 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall limit the usage of recycled/reprocessed oil (WDLF) to the following:

- (a) The maximum firing rate per kiln shall not exceed 600 gallons per hour.
- (b) The total consumption per kiln shall not exceed 83,900 gallons per year on a 12-month rolling sum.

[Additional authority for this permit condition is derived from 25 PA Code 129.91, RACT]

**# 015 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

- (a) The permittee shall limit the combined maximum firing rate of engineered fuel in Kilns #1 & #2 (Source ID 121 & 122) to 3.0 tons per hour.
- (b) The permittee shall limit the combined throughput of engineered fuel in Kilns #1 & #2 (Source ID 121 & 122) to 50,000 tons during any consecutive 12-month period.
- (c) The permittee may increase to a higher combined maximum firing rate of engineered fuel in Kilns #1 & #2 up to 6.0 tons per hour if the permittee conducts subsequent performance tests at the desired firing rate up to 6.0 tons per hour in accordance with the provisions of 25 Pa Code Section 139 and the Department's Source Testing Manual for the following:

- (1) Total PM10 (filterable & condensable)
- (2) Total PM2.5 (filterable & condensable)
- (3) VOC
- (4) HF
- (5) H2SO4
- (6) Pb

[Additional authority for this permit condition is derived from PA 06-05002M]

**II. TESTING REQUIREMENTS.****# 016 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall use the following analytical methods to test Wood Fuel (WDSF) for the items below:

- |                                      |              |
|--------------------------------------|--------------|
| (a) Moisture                         | ASTM E871-82 |
| (b) Ash                              | ASTM E1102   |
| (c) Sulfur                           | ASTM E775    |
| (d) BTU                              | ASTM E711-87 |
| (e) Volatile Matter and Fixed Carbon | ASTM E872    |

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(f) Chlorine	ASTM E776-87
(g) Arsenic, Cadmium, Chromium and Lead	ASTM E885-88
(h) Hexavalent Chromium	EPA 3060A/EPA 7199
(i) Total Halides	EPA SW 9023
(j) TCLP	EPA SW-846, Method 1311
(k) Ultimate Carbon	ASTM E777
(l) Ultimate Hydrogen	ASTM E777
(m) Ultimate Nitrogen	ASTM E778

**# 017 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

To show compliance with the emission limits whenever a higher waste wood (WDSF) firing rate is requested, the permittee shall conduct the following performance tests as per Sections 63.7 and 63.1349 of 40 CFR Part 63, Subpart LLL, MACT, and Chapter 139 of the rules and regulations of the Department: Particulate (Method 5), PM-10 (Methods 201A & 202), Dioxin/Furan, hydrogen chloride and opacity from each kiln for which the new firing rate is proposed.

[Additional authority for this condition is derived from 40 CFR Part 63, Subpart LLL, MACT]

**# 018 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall verify the ammonia slip via performance testing at least once per calendar year while each SNCR is operational. The performance testing shall be conducted in accordance with the provisions of 25 Pa Code Section 139 and the Department's Source Testing Manual.

(b) The testing shall be conducted under two operating scenarios. First the permittee shall test for the emissions of ammonia from the kilns while the SNCR systems are fully functional. A second test shall be conducted 24 hours after the SNCR system has been turned off.

(c) The ammonia slip shall be determined by the following equation:

$$\text{PPM NH}_3 @ 7\% \text{ O}_2 \text{ SNCR ON} - \text{PPM NH}_3 @ 7\% \text{ O}_2 \text{ SNCR OFF} = \text{PPM NH}_3 @ 7\% \text{ O}_2 \text{ SLIP}$$

[Additional authority for this permit condition is derived from PA 06-05002K]

**# 019 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

If the permittee fails any of the required emission testing, the source shall be retested within one hundred and eighty (180) days from the previous test date.

**# 020 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Prior to accepting each shipment of recycled/reprocessed oil (WDLF) delivered to the facility, the permittee shall test each shipment for total halides using EPA Reference Method 9076, or an alternate test method if approved in writing by the Department. If the test of any shipment reveals total halides in excess of 1,000 mg/kg, then the permittee shall refuse to accept the shipment. The permittee shall keep records of the results of sampling required by this condition for at least two years.

**III. MONITORING REQUIREMENTS.****# 021 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) For the purpose of continuous emission monitor (CEM) monitoring for gaseous pollutants, the permittee shall apply the process down definition from the table accompanying the March 1, 2006, letter from the Department.

(b) For the purpose of continuous opacity monitors (COM) monitoring for opacity, the permittee shall apply the process down definition from the table accompanying the May 8, 2006, letter from the Department.

**# 022 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall daily take a representative sample of the waste wood received during the last 24 hours. If no wood has

**SECTION E. Source Group Restrictions.**

been received in the last 24 hours no sample shall be taken. Each week the permittee shall composite all of the daily samples taken since the last weekly testing of the waste wood. The composite shall then be tested for the following parameters:

- (a) Proximate Analysis: Moisture, volatiles, ash and fixed carbon
- (b) Ultimate Analysis: Carbon, hydrogen, oxygen, nitrogen, sulfur and chlorine
- (c) Caloric Value: BTUs per pound
- (d) Chemical Analysis: Arsenic, cadmium, chromium, lead and total halides

The permittee may request changes in this sampling frequency should sampling show limited variation and/or insignificant pollutant content. The request shall be submitted to the Department in writing. The permittee shall not change the sampling frequency without first receiving written approval from the Department.

**# 023 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall make provisions for the personnel of the Department to take samples of the recycled/reprocessed oil (WDLF) and the waste wood (WDSF) at any time the fuel is on hand and/or being used at the source.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 129.91, RACT]

**# 024 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall record the pressure drop across the ACI silo and the shuttled dust silo bin vent filters. At a minimum these recordings shall be taken once per week, while the sources and collectors are in operation. The recordings shall be maintained in a manner approved by the Department.

[Additional authority for this permit condition is derived from PA 06-05002L]

**# 025 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) When in operation, the permittee shall conduct an inspection of all ammonia supply lines outside of the kiln and the ammonia storage tank for leaks and wear weekly. Any leaks shall be repaired as soon as possible. Worn parts shall be replaced during regularly scheduled maintenance periods, unless the worn part appears to be on the verge of failure.

(b) The permittee shall make a visible check of the ammonia supply lines within the kilns each time the kilns are not operating for a period of 24 hours. A physical inspection shall be made once every 12 months..

[Additional authority for this permit condition is derived from PA 06-05002K]

**# 026 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall monitor the temperature of each kiln at the chain section of the kiln. The permittee shall maintain a device at this location in each kiln that can read and record the temperature within the kilns at this point.

[Additional authority for this permit condition is derived from PA 06-05002H]

**# 027 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Periodic grab samples (a minimum of once per day) shall be taken of the fuel from the kiln coal pipes between the coal mills and the kilns. These grab samples (a minimum of five consecutive) shall be combined and sampled for sulfur and ash content by weight and the BTU value. A minimum of five composite samples shall be tested per month. Sampling is only required while the kilns are operating on coal (i.e. bituminous coal and/or anthracite coal). The sampling results shall be averaged into a monthly value and recorded.

[Additional authority for this permit condition is derived from PA 06-05002N]

**# 028 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

For at least 1 out of every 15 shipments of recycled/reprocessed oil (WDLF) received at the facility, the permittee shall take an additional sample for the purpose of conducting a complete analysis for all the constituents/properties listed in condition

**SECTION E. Source Group Restrictions.**

#011, above. The permittee shall use test methods specified in condition #011, unless an alternate test method has been approved in writing by the Department. The permittee may accept the oil (WDLF) that is the subject of such analysis and may use oil (WDLF) from any tank to which such oil has been added, for up to 15 days from the date of delivery of the relevant shipment, pending receipt of the analysis results. If any analysis results by Lehigh or DEP show exceedances of any of the limits listed in condition #011, above, then the permittee shall cease using recycled/reprocessed oil (WDLF) from the tank(s) in which the relevant shipment was placed, and shall not resume using oil (WDLF) from the tank(s) until either:

(a) The Department has granted written approval to resume use of the oil (WDLF) based on an alternate demonstration of acceptability of the oil in the tank(s) for use as fuel at the facility, or

(b) The oil (WDLF) remaining in the tank(s) has been re-sampled and

(1) If the re-sample meets the limits in condition #011, the Department has granted written permission to resume using the oil, or

(2) If the re-sample fails to meet the limits in condition #011, the Department has granted written permission to resume using the tank(s) after the permittee has emptied the oil (WDLF) from the tank(s) and has made proper disposal arrangements.

The permittee shall cease using the oil (WDLF) from such tank(s) not later than 2 hours after making the original determination, or having had reasonable opportunity to make the determination that contaminated waste oil was placed in the tanks. The permittee shall keep records of the results of sampling required by this condition for at least two years.

**# 029 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall take and retain a sample of each shipment of recycled/reprocessed oil (WDLF) that is delivered to the facility. The samples shall be retained on-site for at least six months, and shall be made available to the Department upon request. The samples are to be sealed and identified with the identity of the oil supplier, the date of delivery, the delivery invoice number and the total gallons of oil in the shipment.

**# 030 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) Samples of each shipment of engineered fuel shall be analyzed for the following criteria prior to receipt by the facility. A fuel supplier certification may be substituted:

- (1) Arsenic
- (2) Beryllium
- (3) Cadmium
- (4) Chromium
- (5) Lead
- (6) Manganese
- (7) Mercury
- (8) Nickel
- (9) Chlorine
- (10) Fluorine
- (11) Sulfur
- (12) Total Halogens
- (13) Btu Content

(b) In the event that the permittee is complying with subsection (a), above, by means of a fuel supplier certification, the permittee shall take and retain grab samples from each shipment. Grab samples shall be composited and analyzed for the criteria under (a) monthly.

(c) The permittee may request changes in the sampling frequency of (b) should sampling show limited variation and/or insignificant pollutant content. The request shall be submitted to the Department in writing. The permittee shall not change the sampling frequency without first receiving written approval from the Department.

[Additional authority for this permit condition is derived from PA 06-05002M]

**SECTION E. Source Group Restrictions.****# 031 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall monitor the amount of engineered fuel burned in Kilns 1 & 2 on an hourly basis (tons per hour).

[Additional authority for this permit condition is derived from PA 06-05002M]

**IV. RECORDKEEPING REQUIREMENTS.****# 032 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall maintain records of the analysis of all bituminous coal fuel, recycled/reprocessed oil (WDLF), tires (WDSF) and waste wood (WDSF) used in the kilns.

**# 033 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall maintain the following minimum additional records whenever tires (WDSF) and/or waste wood (WDSF) are utilized in the kilns (by kiln):

- (a) Percent of total monthly heat input by WDSF (tires)
- (b) Monthly heat input by WDSF (waste wood) in pounds per hour
- (c) Hours of operation on each WDSF fuel

**# 034 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall record the results of all monitoring and repairs made to each SNCR system in a manner approved by the Department.

[Additional authority for this permit condition is derived from PA 06-05002K]

**# 035 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall maintain a permanent record of the following minimum items whenever the SNCR systems are being used:

- (1) Monthly ammonia consumption per kiln
- (2) Annual ammonia consumption per kiln (12-month rolling total)
- (3) Monthly NOx emissions per kiln
- (4) NOx emissions from each kiln during the calendar period of May 1 through September 30
- (5) Monthly cement clinker production per kiln
- (6) Cement clinker production per kiln during the calendar period of May 1 through September 30

[Additional authority for this permit condition is derived from PA 06-05002K]

**# 036 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall maintain records (monthly & 12-month rolling total) of the amount of engineered fuel combusted in each kiln.

(b) The permittee shall maintain records of the engineered fuel analysis or vendor certification at the site.

(c) The above records shall be maintained at the facility for a period of 5-years and be made available to the Department upon request.

[Additional authority for this permit condition is derived from PA 06-05002M]

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**SECTION E. Source Group Restrictions.****VI. WORK PRACTICE REQUIREMENTS.****# 037 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall maintain a Mid-Kiln Air Injection System on each kiln for the primary purpose of controlling NOx emissions with a secondary purpose of controlling SOx and CO emissions.

**# 038 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall cease the use of waste wood (WDSF) in the kilns should the analysis of the composite sample exceed any of the limits listed in this permit. The permittee may not resume use of waste wood as a fuel until one of the following occur:

(a) The Department has given written approval to resume use of waste wood, after new composite sampling of the waste wood currently in the storage bin complies with the permit limits, or

(b) The Department has given written approval to resume use of waste wood, after sampling of the waste wood being delivered for direct use shows that it meets the permit limits, or

(c) The Department has given written approval to resume use of waste wood, after all non-complying waste wood has been removed from the facility and new compliant material has been supplied.

The permittee shall cease using waste wood within two hours of receiving notification of the exceedance.

**# 039 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall operate and maintain the kilns in accordance with good air pollution control practices.

[Additional authority for this permit condition is derived from 25 pa. Code Section 129.91, RACT]

**# 040 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall maintain a lime injection system on each kiln's control system. The injection rate shall be tied to the SO2 continuous emission monitor in a manner that ensures an adequate coating of lime on the fabric collector's bags for the proper control of SO2 and H2SO4.

**# 041 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Waste derived solid fuels (WDSF) shall only be fired during production of Portland Cement clinker. At no time shall these fuels be used during start-up.

[Additional authority for this permit condition is derived from 25 Pa Code Section 129.91]

**# 042 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Equipment (a differential manometer or equivalent, as approved by the Department), shall be provided and maintained on the ACI silo and the shuttled dust silo bin vent filters so that at any time the pressure drop across the filters can be measured.

[Additional authority for this permit condition is derived from PA 06-05002L]

**# 043 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall maintain all moving and electronic parts of each ammonia distribution system in a shelter that protects them from the weather and temperature. All parts of the system exposed to the high temperatures of the kiln shall be designed, installed and operated to withstand the expected operating temperatures.

[Additional authority for this permit condition is derived from PA 06-05002H]

**SECTION E. Source Group Restrictions.****VII. ADDITIONAL REQUIREMENTS.****# 044 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

This permit shall not be construed to authorize the permittee to transport, treat, process or refine waste oil, or to blend off-specification waste oil with other oil for the purpose of producing an on-specification mixture.

**# 045 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The waste wood (WDSF) fired in the kilns shall consist of only: non-treated wood (including stained, painted, laminated); sawdust; wood shavings; and treated wood (including creosote, pentachlorophenol and copper naphthenate). The waste wood shall comply with all requirements of the Department and have received a coproduct determination from the Department (Bureau of Waste Management) prior to usage in the kilns. The waste wood shall originate from a facility holding a valid permit to produce a coproduct fuel or the permittee shall have a valid permit. The waste wood shall have a minimum heating value of 5,000 BTU per pound.

**# 046 [25 Pa. Code §145.143.]****Standard requirements.**

By October 31 of each year, the permittee shall calculate the difference between the actual emissions of NO<sub>x</sub> from each kiln during the period from May 1 through September 30 of the current year and the allowable NO<sub>x</sub> emissions for that period.

(a) The actual NO<sub>x</sub> emissions shall be determined by using the CEM.

(b) The allowable NO<sub>x</sub> emissions shall be determined by multiplying the tons of clinker produced by each kiln for the period by 3.44 pounds per ton of clinker produced.

**# 047 [25 Pa. Code §145.143.]****Standard requirements.**

The permittee shall surrender to the Department one NO<sub>x</sub> allowance, as defined in 25 PA Code Section 145.2, for each ton of NO<sub>x</sub> by which the combined actual emissions exceed the combined allowable emissions for the kilns from May 1 through September 30. The surrendered NO<sub>x</sub> 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.

If the combined allowable emissions from the kilns from May 1 through September 30 exceed the combined actual emissions from the kilns during the same period, the permittee may deduct the difference or any portion of the difference from the amount of actual emissions from the kilns at the permittee's other facilities located in this Commonwealth for that period.

By November 1 of each year, the permittee shall surrender the required NO<sub>x</sub> allowances to the Department's designated NO<sub>x</sub> allowance tracking system account, as defined in 25 PA Code Section 121.1, and shall provide in writing to the Department, the following:

(a) The serial number of each NO<sub>x</sub> allowance surrendered.

(b) The calculations used to determine the quantity of NO<sub>x</sub> allowances required to be surrendered.

If the permittee fails to comply with the above, the permittee shall by December 31 surrender three NO<sub>x</sub> allowances of the current or later year vintage for each NO<sub>x</sub> allowance that was required to be surrendered by November 1. The surrender of these NO<sub>x</sub> allowances does not affect the liability of the permittee for any fine, penalty or assessment, or an obligation to comply with any other remedy for the same violation, under the Clean Air Act or the Air Pollution Control Act.

(a) 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 permittee demonstrates that a lesser number of days should be considered.

(b) Each ton of excess emissions is a separate violation.

\*\*\* **Permit Shield in Effect.** \*\*\*

**SECTION E. Source Group Restrictions.**

Group Name: SG02 RAW MILLS

Group Description: Raw Mills &amp; Heaters

Sources included in this group

ID	Name
109	RAW GRIND #1 & HEATER
110	RAW GRIND #2 & HEATER
112	RAW GRIND #3 & HEATER

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.13]****Processes**

No person shall permit the emissions into the outdoor atmosphere of particulate matter from the sources in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grains per dry standard cubic foot.

**# 002 [25 Pa. Code §123.21]****General**

The permittee may not permit the emission into the outdoor atmosphere of sulfur dioxide from a source in a manner that the concentration of sulfur oxides, expressed as SO<sub>2</sub>, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

**Fuel Restriction(s).****# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall not accept at the facility any recycled/reprocessed oil (WDLF) which is represented by the oil supplier as failing to meet the following standards, or for which the permittee does not have documentation from the oil supplier regarding the following standards:

Constituent/Property	Limitation Level	Analytical Technique*
Sulfur (S)	<=0.6 %	
Arsenic (As)	<=5 mg/kg	SW-846 Method
Cadmium (Cd)	<=2 mg/kg	SW-846 Method
Chromium (Cr)	<=10 mg/kg	SW-846 Method
Lead (Pb)	<=100 mg/kg	SW-846 Method
TX	<=1000 mg/kg	SW-846 Method 9076
PCB	not detectable**	SW-846 Method (H <sub>2</sub> SO <sub>4</sub> ex./GC w/elec. cap.)
Flash Point	>=140 °F	ASTM D93***
Ash	<=2 %	

\* Utilize the current and most applicable SW-846 method to test for the target analyte and the limitation level. (Alternative methods may be used when approved in writing by the Department.)

\*\* PCBs shall not be present in a quantifiable level, defined in 40 CFR 761.1 as 2 micrograms per gram from any resolvable gas chromatographic peak, i.e. 2 mg/kg.

\*\*\* Utilize the ASTM method listed or the current revision.

The recycled/reprocessed oil (WDLF) may not contain detectable levels of pesticides and/or herbicides.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 129.91, RACT]

**# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

This Operating Permit is issued to permit the permittee to fire either Virgin No.2 fuel oil or the specific recycled/reprocessed oil (WDLF) identified in this permit in the heaters associated with the Raw Mills #1, #2 and #3. The permittee is only permitted to use recycled/reprocessed oil (WDLF) as supplied by Tri-State Industrial Fuels, Inc. and/or International Recovery Corporation unless prior approval is received from the Department.



**SECTION E. Source Group Restrictions.**

Any request for approval of a new supplier shall include the following:

- (a) Name and address of the new supplier
- (b) Analysis of the supplier's oil with the items identified in Condition #004 above.
- (c) BTU rating of the oil

[Additional authority for this permit condition is derived from 25 PA Code Section 129.91, RACT]

**# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall limit the use of WDLF in the Raw Mill Heaters as follows:

- (a) The maximum firing rate of recycled/reprocessed oil (WDLF) shall not exceed 70 gallons per hour per heater on Raw Mills No. 1 and 2 and 125 gallons per hour per heater on Raw Mill No.3.
- (b) The total consumption of recycled/reprocessed oil (WDLF) for the Raw Mill Operation shall not exceed 1,228,500 gallons per year based on a 12-month rolling sum.

[Additional authority for this permit condition is derived from 25 PA Code Section 129.91, RACT]

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.****# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

For at least 1 out of every 15 shipments of recycled/reprocessed oil received at the facility, the permittee shall take an additional sample for the purpose of conducting a complete analysis for all the constituents/properties listed in Condition #004, above. The permittee shall use test methods specified in Condition #004, unless an alternate test method has been approved in writing by the Department. The permittee may accept the oil that is the subject of such analysis and may use oil from any tank to which such oil has been added, for up to 15 days from the date of delivery of the relevant shipment, pending receipt of the analysis results. If the analysis results show exceedances of any of the limits listed in Condition #004, above, then the permittee shall cease using recycled reprocessed oil from the tank(s) in which the relevant shipment was placed, and shall not resume using oil from the tank(s) until either:

- (a) The Department has granted written approval to resume use of the oil based on an alternate demonstration of acceptability of the oil in the tank(s) for use as fuel at the facility, or
- (b) The oil remaining in the tank(s) has been re-sampled and
  - (1) If the re-sample meets the limits in Condition #004, the Department has granted written permission to resume using the oil, or
  - (2) If the re-sample fails to meet the limits in Condition #004, the Department has granted written permission to resume using the tank(s) after the permittee has emptied the oil from the tank(s) and has made proper disposal arrangements.

The permittee shall cease using the oil from such tank(s) not later than 2 hours after making the original determination, or having had reasonable opportunity to make the determination that contaminated waste oil was placed in the tanks. The permittee shall keep records of the results of sampling required by this condition for at least two years.

**# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Prior to accepting each shipment of recycled/reprocessed oil (WDLF) delivered to the facility, the permittee shall test each shipment for total halides using EPA Reference Method 9077, or an alternate test method if approved in writing by the Department. If the test of any shipment reveals total halides in excess of 1,000 mg/kg, then the permittee shall refuse to

**SECTION E. Source Group Restrictions.**

accept the shipment. The permittee shall keep records of the results of sampling required by this condition for at least two years.

**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall make provisions for personnel of the Department to take samples of the recycled/reprocessed oil (WDLF) at any time the fuel is on hand and/or being used at the source.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 129.91, RACT]

**# 009 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall take and retain a sample of each shipment of recycled/reprocessed oil (WDLF) that is delivered to the facility. The samples shall be retained on-site for at least six months, and shall be made available to the Department upon request. The samples are to be sealed and identified with the identity of the oil supplier, the date of delivery, the delivery invoice number and the total gallons of oil in the shipment.

**IV. RECORDKEEPING REQUIREMENTS.****# 010 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain records of the analysis and consumption of all recycled/reprocessed oil (WDLF) used in the heaters.

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.****# 011 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

If the analysis results from any random tank sampling conducted by the Department show exceedences of any of the limits listed in Condition #004, above, then the permittee shall cease using recycled/reprocessed oil from the affected tank(s) and shall not resume using oil from the tank(s) until either

(a) The Department has granted written approval to resume use of the oil based on an alternate demonstration of compliance for the original sample, or

(b) The Department has granted written permission to resume placing oil in the tank(s) after the permittee has emptied the contaminated oil from the tank(s) and has made proper disposal arrangements.

The permittee shall cease using the oil from such tank(s) not later than 2 hours after receiving notification from the Department of the exceedence.

**# 012 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

No recycled/reprocessed oil (WDLF) shipments may be blended into existing fuel or burned by itself unless an analysis has been performed for the constituents/properties of Condition #004 and a copy of the analysis is available demonstrating that none of the levels are exceeded.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 129.91, RACT]

**VII. ADDITIONAL REQUIREMENTS.****# 013 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

This permit shall not be construed to authorize the permittee to transport, treat, process or refine waste oil, or to blend off-specification waste oil with other oil for the purpose of producing an on-specification mixture.



**SECTION E. Source Group Restrictions.**

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: SG03 FINISH MILLS

Group Description: Finishing Mills

Sources included in this group

ID	Name
159	FINISH GRIND #1 MILL
160	FINISH GRIND #3 MILL
162	FINISH GRIND #2 MILL

**I. RESTRICTIONS.****Emission Restriction(s).**

# 001 [25 Pa. Code §123.13]

**Processes**

No person may permit the emission into the outdoor atmosphere of particulate matter from the above sources in a manner that the concentration of the particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: SG04 RAW MATERIALS

Group Description: Raw Material Drying &amp; Handling Operation

Sources included in this group

ID	Name
177	RAW MATERIAL DRYER (SLAG)
180	RAW MATERIAL (SLAG/GYPSUM) TRANSFER
200	RAW MATERIAL HANDLING

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.13]****Processes**

No person may permit the emission into the outdoor atmosphere of particulate matter from the above sources in a manner that the concentration of the particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

**# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall limit the sulfur dioxide emissions from the raw material dryer (177) to 500 parts per million.

[Additional authority for this condition is derived from 25 PA Code Section 123.21]

**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall operate the sources in a manner such that there are no visible or malodorous emissions.

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.****# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Equipment (a differential manometer or equivalent, as approved by the Department), shall be provided and maintained so that, at any time, the pressure drop across the fabric collector can be measured.

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: SG05A AMENDED MACT

Group Description: Amended 40 CFR 63, Subpart LLL Source(s)

**Sources included in this group**

ID	Name
109	RAW GRIND #1 & HEATER
110	RAW GRIND #2 & HEATER
112	RAW GRIND #3 & HEATER
121	PORTLAND CEMENT KILN #1
122	PORTLAND CEMENT KILN #2
125	CLINKER COOLER #1
126	CLINKER COOLER #2
159	FINISH GRIND #1 MILL
160	FINISH GRIND #3 MILL
162	FINISH GRIND #2 MILL
177	RAW MATERIAL DRYER (SLAG)
180	RAW MATERIAL (SLAG/GYPSUM) TRANSFER
181	SYNTHETIC GYPSUM SYSTEM
182	COAL HANDLING SYSTEM
200	RAW MATERIAL HANDLING
210	KILN FEED
220	CLINKER HANDLING & STORAGE
230	CEMENT STORAGE
240	BULK LOADING
250	CEMENT PACKAGING PLANT
308	KILN LIME BIN #1

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**SECTION E. Source Group Restrictions.****VII. ADDITIONAL REQUIREMENTS.****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

With the issuance of this permit the Operation and Maintenance Plan for Open Clinker Storage Piles is approved as amended on October 2, 2013.

**# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Regulatory Changes:

Individual sources within this source group that are subject to 40 CFR 63, Subpart LLL -- National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry shall comply with all applicable requirements of the Subpart. 40 CFR 63.13(a) requires submission of copies of all requests, reports and other communications to both the Department and the EPA. The EPA copies shall be forwarded to:

Associate Director  
Office of Air Enforcement and Compliance Assistance, 3AP20  
U.S. EPA Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

The Department copies shall be forwarded to:

Regional Air Program Manager  
PA Department of Environmental Protection  
909 Elmerton Avenue  
Harrisburg, PA 17110-8200

In the event that the Federal Subpart that is the subject of this Source Group is revised, the permittee shall comply with the revised version of the subpart, and shall not be required to comply with any provisions in this permit designated as having the subpart as their authority, to the extent that such permit provisions would be inconsistent with the applicable provisions of the revised subpart.

**# 003 [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?**

63.1340(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.

63.1340(b) The affected sources subject to this subpart are:

63.1340(b)(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;

63.1340(b)(2) Each clinker cooler at any portland cement plant;

63.1340(b)(3) Each raw mill at any portland cement plant;

63.1340(b)(4) Each finish mill at any portland cement plant;

63.1340(b)(5) Each raw material dryer at any portland cement plant;

63.1340(b)(6) Each raw material, clinker, or finished product storage bin at any portland cement plant that is a major source;

63.1340(b)(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;

**SECTION E. Source Group Restrictions.**

63.1340(b)(8) Each bagging and bulk loading and unloading system at any portland cement plant that is a major source; and

63.1340(b)(9) Each open clinker storage pile at any portland cement plant.

63.1340(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.

63.1340(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]

**# 004 [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 page 76549, Dec. 20, 2006]

**# 005 [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?**

63.1343(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.

63.1343(b) Kilns, clinker coolers, raw material dryers, raw mills, and finish mills.

63.1343(b)(1) The emissions limits for these sources are shown in Table 1.

TABLE 1:

Item 1.

If your source is an existing kiln and the operating mode is normal operation and if is located at a major or area source, then your emissions limits are:

PM (See Note 1 below) = 0.07 lb/ton clinker

D/F (See Note 2 below) = 0.2 ng/dscm (TEQ) corrected to 7% oxygen

Mercury = 55 lb/MM tons clinker

THC (See Notes 3 & 4 below) = 24 ppmvd corrected to 7% oxygen

Item 2.

If your source is an existing kiln and the operating mode is Normal operation and if is located at a major source, then your emissions limits are:

HCl = 3 ppmvd corrected to 7% oxygen

Item 3.

If your source is an existing kiln and the operating mode is startup and shutdown and if is located at a major or area source,



**SECTION E. Source Group Restrictions.**

then your emissions limits are:

Work practices (63.1346(f))

Item 7.

If your source is an existing clinker cooler and the operating mode is normal operation and if is located at a major or area source, then your emissions limits are:

PM = 0.07 lb/ton clinker

Item 8.

If your source is an existing clinker cooler and the operating mode is startup and shutdown and if is located at a major or area source, then your emissions limits are:

Work practices (63.1348(b)(9))

Item 11.

If your source is an existing raw material dryer and the operating mode is normal operation and if is located at a major or area source, then your emissions limits are:

THC (See Notes 3 & 4 below) = 24 ppmvd

Item 12.

If your source is an existing raw material dryer and the operating mode is startup and shutdown and if is located at a major or area source, then your emissions limits are:

Work practices (63.1348(b)(9))

Item 13.

If your source is an existing raw or finish mill and the operating mode is all operating modes and if is located at a major source, then your emissions limits are:

Opacity = 10%

Note:

- (1) The initial and subsequent PM performance tests are performed using Method 5 or 5I and consist of three 1-hr test runs.
- (2) 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).
- (3) Measured as propane.
- (4) Any source subject to the 24 ppmvd THC limit may elect to meet an alternative limit of 12 ppmvd for total organic HAP.

63.1343(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 that combine the clinker cooler exhaust and/or alkali bypass and/or coal mill exhaust with the kiln exhaust and send the combined exhaust to the PM control device as a single stream may meet an alternative PM emissions limit. This limit is calculated using Equation 1 of this section:

$$PM_{alt} = (0.0060 \times 1.65) (Q_k + Q_c + Q_{ab} + Q_{cm}) / (7000) \quad (Eq.1)$$

Where:

$PM_{alt}$  = Alternative PM emission limit for commingled sources.

0.006 = The PM exhaust concentration (gr/dscf) equivalent to 0.070 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.

$Q_k$  = The exhaust flow of the kiln (dscf/ton feed).

$Q_c$  = The exhaust flow of the clinker cooler (dscf/ton feed).

$Q_{ab}$  = The exhaust flow of the alkali bypass (dscf/ton feed).

$Q_{cm}$  = The exhaust flow of the coal mill (dscf/ton feed).

7000 = The conversion factor for grains (gr) per lb.

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:

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$$PM_{alt} = (0.0020 \times 1.65) (Q_k + Q_c + Q_{ab} + Q_{mc}) / (7000) \quad (\text{Eq.2})$$

Where:

$PM_{alt}$  = 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.

$Q_k$  = The exhaust flow of the kiln (dscf/ton feed).

$Q_c$  = The exhaust flow of the clinker cooler (dscf/ton feed).

$Q_{ab}$  = The exhaust flow of the alkali bypass (dscf/ton feed).

$Q_{cm}$  = The exhaust flow of the coal mill (dscf/ton feed).

7000 = The conversion factor for gr per lb.

63.1343(c) Open clinker storage pile. 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.

63.1343(c)(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.

63.1343(c)(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.

63.1343(c)(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]

**# 006 [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 material dryers; and raw and finish mills, and open clinker piles.**

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.

[75 FR page 55054, Sept. 9, 2010; 78 FR page 10039, Feb. 12, 2013]

**# 007 [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.**

63.1346(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:

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63.1346(a)(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.

63.1346(a)(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.

63.1346(a)(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.

63.1346(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).

63.1346(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.

63.1346(c)(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).

63.1346(c)(2) You must either:

63.1346(c)(2)(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

63.1346(c)(2)(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).

63.1346(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.

63.1346(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.

63.1346(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.

63.1346(g) During periods of startup and shutdown you must meet the requirements listed in (g)(1) through (4) of this section.

63.1346(g)(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

**SECTION E. Source Group Restrictions.**

temperature of 1200 degrees Fahrenheit.

63.1346(g)(2) Combustion of the primary kiln fuel may commence once the kiln temperature reaches 1200 degrees Fahrenheit.

63.1346(g)(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.

63.1346(g)(4) You must keep records as specified in §63.1355 during periods of startup and shutdown.

[75 FR 55054, Sept. 9, 2010, as amended at 78 FR 10039, Feb. 12, 2013; 80 FR 44781, July 27, 2015]

**# 008 [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.**

63.1347(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:

63.1347(a)(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.

63.1347(a)(2) Corrective actions to be taken when required by paragraph §63.1350(f)(3);

63.1347(a)(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.

63.1347(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]

**# 009 [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.**

63.1348(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 than the compliance date if desired.

63.1348(a)(1) PM Compliance. If you are subject to limitations on PM emissions under §63.1343(b), you must

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demonstrate compliance with the PM emissions standards by using the test methods and procedures in §63.1349(b)(1).

63.1348(a)(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.

63.1348(a)(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. entrations measured for the three runs to determine continuous compliance.

63.1348(a)(3)(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.

63.1348(a)(3)(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).

63.1348(a)(3)(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  $\pm 5$  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).

63.1348(a)(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.

63.1348(a)(4)(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).

63.1348(a)(4)(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.

63.1348(a)(4)(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.

63.1348(a)(4)(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.

63.1348(a)(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.

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63.1348(a)(5)(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.

63.1348(a)(5)(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.

63.1348(a)(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).

63.1348(a)(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.

63.1348(a)(6)(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.

63.1348(a)(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:

63.1348(a)(7)(i) Performing required emissions monitoring and testing on the commingled coal mill and kiln exhaust, or

63.1348(a)(7)(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).

63.1348(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.

63.1348(b)(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).

63.1348(b)(1)(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.

63.1348(b)(1)(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.

63.1348(b)(1)(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).

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63.1348(b)(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).

63.1348(b)(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.

63.1348(b)(3)(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).

63.1348(b)(3)(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).

63.1348(b)(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).

63.1348(b)(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).

63.1348(b)(5)(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).

63.1348(b)(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).

63.1348(b)(6)(ii) THC must be measured either upstream of the coal mill or in the coal mill stack.

63.1348(b)(7) Mercury Compliance.

63.1348(b)(7)(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).

63.1348(b)(7)(ii) Mercury must be measured either upstream of the coal mill or in the coal mill stack.

63.1348(b)(8) HCl Compliance. If you are subject to limitations on HCl emissions under §63.1343(b), you must demonstrate compliance using the performance test methods and procedures in §63.1349(b)(6).

63.1348(b)(8)(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).

63.1348(b)(8)(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(l)(2).

63.1348(b)(8)(iii) HCl may be measured either upstream of the coal mill or in the coal mill stack.

63.1348(b)(8)(iv) As an alternative to paragraph (b)(8)(ii) of this section, you may use an SO<sub>2</sub> CEMS to establish an SO<sub>2</sub>



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operating level during your initial and repeat HCl performance tests and monitor the SO<sub>2</sub> level using the procedures in §63.1350(l)(3).

63.1348(b)(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.

63.1348(c) Changes in operations.

63.1348(c)(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).

63.1348(c)(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.

63.1348(c)(2)(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.

63.1348(c)(2)(ii) The performance test results must be documented in a test report according to §63.1349(a).

63.1348(c)(2)(iii) A test plan must be made available to the Administrator prior to performance testing, if requested.

63.1348(c)(2)(iv) The performance test must be completed within 360 hours after the planned operational change period begins.

63.1348(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]

**# 010 [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.**

63.1349(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



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subsequent performance test to demonstrate compliance with the relevant emissions limit.

63.1349(a)(1) A brief description of the process and the air pollution control system;

63.1349(a)(2) Sampling location description(s);

63.1349(a)(3) A description of sampling and analytical procedures and any modifications to standard procedures;

63.1349(a)(4) Test results;

63.1349(a)(5) Quality assurance procedures and results;

63.1349(a)(6) Records of operating conditions during the performance test, preparation of standards, and calibration procedures;

63.1349(a)(7) Raw data sheets for field sampling and field and laboratory analyses;

63.1349(a)(8) Documentation of calculations;

63.1349(a)(9) All data recorded and used to establish parameters for monitoring; and

63.1349(a)(10) Any other information required by the performance test method.

63.1349(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).

63.1349(b)(1)(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.

63.1349(b)(1)(i)(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.

63.1349(b)(1)(i)(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.

63.1349(b)(1)(i)(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).

63.1349(b)(1)(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

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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.

63.1349(b)(1)(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 5I compliance test with the procedures in (b)(1)(iii)(A) through (D) of this section.

63.1349(b)(1)(iii)(A) Determine your PM CPMS instrument zero output with one of the following procedures:

63.1349(b)(1)(iii)(A)(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.

63.1349(b)(1)(iii)(A)(2) Zero point data for extractive instruments should be obtained by removing the extractive probe from the stack and drawing in clean ambient air.

63.1349(b)(1)(iii)(A)(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.

63.1349(b)(1)(iii)(A)(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.

63.1349(b)(1)(iii)(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.

REFER TO REGULATION FOR 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.

63.1349(b)(1)(iii)(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.

$$R = Y1 / (X1 - z) \quad (\text{Eq. 4})$$

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).

63.1349(b)(1)(iii)(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.

$$OI = z + 0.75 (L) / R \quad (\text{Eq. 5})$$

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 digital equivalent, determined from (b)(1)(iii)(A).

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R = The relative lb/ton-clinker per milliamp, or digital equivalent, for your PM CPMS, from Equation 4.

63.1349(b)(1)(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.

REFER TO REGULATION FOR EQUATION 6

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 the digital equivalent.

63.1349(b)(1)(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.

REFER TO REGULATION FOR EQUATION 7

Where:

Hpv<sub>i</sub> = The hourly parameter value for hour i.

n = The number of valid hourly parameter values collected over 30 kiln operating days.

63.1349(b)(1)(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.

63.1349(b)(1)(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.

63.1349(b)(1)(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.

$$EC = (EK + EB + EC) / P \quad (\text{Eq. 8})$$

Where:

EC<sub>m</sub> = 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.

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63.1349(b)(1)(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.

63.1349(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.

63.1349(b)(2)(i) There are no individual readings greater than 10 percent opacity;

63.1349(b)(2)(ii) There are no more than three readings of 10 percent for the first 1-hour period.

63.1349(b)(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.

63.1349(b)(3)(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).

63.1349(b)(3)(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.

63.1349(b)(3)(iii) Average temperatures must be calculated for each run of the performance test.

63.1349(b)(3)(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).

63.1349(b)(3)(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.

63.1349(b)(3)(v)(B) Include the brand and type of sorbent used during the performance test in the performance test report.

63.1349(b)(3)(v)(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).

63.1349(b)(3)(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).

63.1349(b)(4) THC emissions test.

63.1349(b)(4)(i) If you are subject to limitations on THC emissions, you must operate a CEMS in accordance with the

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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 ppmvw and the reference method (RM) is Method 25A of appendix A to part 60 of this chapter.

63.1349(b)(4)(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).

63.1349(b)(4)(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:

$$C_{ks} = [(MACT \text{ Limit} \times (Q_{ab} + Q_{cm} + Q_{ks})) - (Q_{ab} \times C_{ab}) - (Q_{cm} \times C_{cm})] / Q_{ks} \quad (\text{Eq. 9})$$

Where:

$C_{ks}$  = Kiln stack concentration (ppmvd).

$Q_{ab}$  = Alkali bypass flow rate (volume/hr).

$C_{ab}$  = Alkali bypass concentration (ppmvd).

$Q_{cm}$  = Coal mill flow rate (volume/hr).

$C_{cm}$  = Coal mill concentration (ppmvd).

$Q_{ks}$  = Kiln stack flow rate (volume/hr).

63.1349(b)(4)(iv) THC must be measured either upstream of the coal mill or the coal mill stack.

63.1349(b)(4)(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.

63.1349(b)(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).

63.1349(b)(5)(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).

63.1349(b)(5)(ii) Calculate the emission rate using Equation 10 of this section:

REFER TO REGULATION FOR EQUATION 10

Where:

$E_{30D}$  = 30-day rolling emission rate of mercury, lb/MM tons clinker.

$C_i$  = Concentration of mercury for operating hour  $i$ ,  $\mu\text{g}/\text{scm}$ .

$Q_i$  = Volumetric flow rate of effluent gas for operating hour  $i$ , where  $C_i$  and  $Q_i$  are on the same basis (either wet or dry),  $\text{scm}/\text{hr}$ .

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

$n$  = Number of kiln operating hours in the previous 30 kiln operating day period where both  $C$  and  $Q_i$  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.

63.1349(b)(6) HCl emissions tests. For a source subject to limitations on HCl emissions you must conduct performance testing by one of the following methods:

63.1349(b)(6)(i)

63.1349(b)(6)(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

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requirements §63.1350(l)(1). For kilns with inline raw mills, testing must be conducted for the raw mill on and raw mill off conditions.

63.1349(b)(6)(i)(B) You must establish site specific parameter limits by using the CPMS required in §63.1350(l)(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.

## 63.1349(b)(6)(ii)

63.1349(b)(6)(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(l)(1). See §63.1348(a).

63.1349(b)(6)(ii)(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 HCl CEMS. Hourly HCl concentration data must be obtained according to §63.1350(l).

63.1349(b)(6)(iii) As an alternative to paragraph (b)(6)(i)(B) of this section, you may choose to monitor SO<sub>2</sub> emissions using a CEMS in accordance with the requirements of §63.1350(l)(3). You must establish an SO<sub>2</sub> operating limit equal to the average recorded during the HCl stack test where the HCl stack test run result demonstrates compliance with the emission limit. This operating limit will apply only for demonstrating HCl compliance.

63.1349(b)(6)(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:

$$C_{ks} = [(MACT \text{ Limit} \times (Q_{ab} + Q_{cm} + Q_{ks})) - (Q_{ab} \times C_{ab}) - (Q_{cm} \times C_{cm})] / Q_{ks} \quad (\text{Eq. 11})$$

Where:

- C<sub>ks</sub> = Kiln stack concentration (ppmvd).
- Q<sub>ab</sub> = Alkali bypass flow rate (volume/hr).
- C<sub>ab</sub> = Alkali bypass concentration (ppmvd).
- Q<sub>cm</sub> = Coal mill flow rate (volume/hr).
- C<sub>cm</sub> = Coal mill concentration (ppmvd).
- Q<sub>ks</sub> = Kiln stack flow rate (volume/hr).

63.1349(b)(6)(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 HCl 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.

63.1349(b)(6)(v)(A) For your HCl 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% O<sub>2</sub>), you must use the time weighted average HCl CPMS indicated value recorded during the HCl compliance test (typically measured as ppmw HCl at stack O<sub>2</sub> 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% O<sub>2</sub>), 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 operating limit.

63.1349(b)(6)(v)(A)(1) Your HCl CPMS must provide a ppm HCl 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 ppmw or ppmvd and the signal may be a measurement of HCl at in-stack concentration or a corrected

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oxygen concentration. Once the relationship between the indicated output of the HCl CPMS and the reference method test results is established, the HCl CPMS instrument measurement basis (ppmw or ppmvd, or oxygen correction basis) must not be altered. Likewise, any setting that impacts the HCl CPMS indicated HCl response must remain fixed after the site-specific operating limit is set.

63.1349(b)(6)(v)(A)(2) Your HCl CPMS operating range must be capable of reading HCl concentrations from zero to a level equivalent to 125 percent of the highest expected value during mill off operation. If your HCl CPMS is an auto-ranging instrument capable of multiple scales, the primary range of the instrument must be capable of reading an indicated HCl concentration from zero to 10 ppm.

63.1349(b)(6)(v)(A)(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.

63.1349(b)(6)(v)(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.

63.1349(b)(6)(v)(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 HCl emission limit, you must calculate an operating limit by establishing a relationship of the average HCl CPMS indicated ppm to the Method 321 test average HCl concentration using the HCl CPMS instrument zero, the average HCl CPMS indicated values corresponding to the three (for kilns without inline raw mills) or time weighted HCl CPMS indicated values corresponding to the six (for kilns with inline raw mills) compliance test runs, and the average HCl concentration (for kilns without raw mills) or average time weighted HCl 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.

63.1349(b)(6)(v)(C)(1) Determine your HCl CPMS instrument zero output with one of the following procedures:

63.1349(b)(6)(v)(C)(1)(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.

63.1349(b)(6)(v)(C)(1)(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.

63.1349(b)(6)(v)(C)(2) If your facility does not have an inline raw mill you will determine your HCl CPMS indicated average in HCl ppm, and the average of your corresponding three HCl compliance test runs, using equation 11a.

REFER TO REGULATION FOR EQUATION 11a

Where:

$X_i$  = The HCl CPMS data points for the three (or six) runs constituting the performance test;

$Y_i$  = The HCl concentration value for the three (or six) runs constituting the performance test; and

$n$  = The number of data points.



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63.1349(b)(6)(v)(C)(3) You will determine your HCl CPMS indicated average in HCl ppm, and the average of your corresponding HCl 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.

REFER TO REGULATION FOR EQUATION 11b

Where:

- Xi = The HCl 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.

63.1349(b)(6)(v)(C)(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 HCl (as ppmvd @7% O<sub>2</sub>) concentration per HCl CPMS indicated ppm with Equation 11c.

$$R = Y1 / (X1 - z) \quad (\text{Eq. 11c})$$

Where:

- R = The relative performance test concentration per indicated ppm for your HCl CPMS;
- Y1 = The average HCl concentration as ppmvd @7% O<sub>2</sub> during the performance test;
- X1 = The average indicated ppm output from your HCl CPMS; and
- z = The ppm of your instrument zero determined from paragraph (b)(6)(v)(C)(1) of this section.

63.1349(b)(6)(v)(C)(5) Determine your source specific 30 kiln operating day operating limit using HCl CPMS indicated value from Equation 11c in Equation 11d, below. This sets your operating limit at the HCl CPMS output value corresponding to 75 percent of your emission limit.

$$Ol = z + 0.75 (L) / R \quad (\text{Eq. 11d})$$

Where:

- Ol = The operating limit for your HCl CPMS on a 30 kiln operating day average, as indicated ppm;
- L = 3 ppmvd @7% O<sub>2</sub>;
- 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 HCl CPMS, from Equation 11c.

63.1349(b)(6)(v)(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% O<sub>2</sub>) you must determine your operating limit by averaging the HCl CPMS output corresponding to your HCl performance test runs that demonstrate compliance with the emission limit using Equation 11e.

REFER TO REGULATION FOR EQUATION 11e

Where:

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

63.1349(b)(6)(v)(E) To determine continuous compliance with the operating limit, you must record the HCl CPMS indicated output data for all periods when the process is operating and use all the HCl 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 HCl CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (ppmww) 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.

REFER TO REGULATION FOR EQUATION 11f

Where:

- 30 kiln operating day parameter average = The average indicated value for the CPMS parameter over the previous 30



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days of kiln operation;

$H_{pvi}$  = The hourly parameter value for hour  $i$ ; and

$n$  = The number of valid hourly parameter values collected over 30 kiln operating days.

63.1349(b)(6)(v)(F) If you exceed the 30 kiln operating day operating limit, you must evaluate the control system operation and re-set the operating limit.

63.1349(b)(6)(v)(G) The owner or operator of a kiln with an inline raw mill and subject to limitations on HCl 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 HCl CPMS limit as a weighted average of the HCl CPMS indicated values measured during raw mill on and raw mill off compliance testing using Equation 11g.

$$R = (b * t) + (a * (1 - t)) \quad (\text{Eq. 11g})$$

Where:

$R$  = HCl CPMS operating limit;

$b$  = Average indicated HCl CPMS value during mill on operations, ppm;

$t$  = Fraction of operating time with mill on;

$a$  = Average indicated HCl CPMS value during mill off operations ppm; and

$(1-t)$  = Fraction of operating time with mill off.

63.1349(b)(6)(v)(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).

63.1349(b)(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.

63.1349(b)(7)(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.

63.1349(b)(7)(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.

63.1349(b)(7)(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.

63.1349(b)(7)(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.

63.1349(b)(7)(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.

63.1349(b)(7)(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

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(b)(7)(iv) of this section.

63.1349(b)(7)(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.

63.1349(b)(7)(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.

63.1349(b)(7)(viii)(A) Determine the THC CEMS average values in ppmw, and the average of your corresponding three total organic HAP compliance test runs, using Equation 12.

REFER TO REGULATION FOR EQUATION 12

Where:

$\bar{x}$  = The THC CEMS average values in ppmw.

$X_i$  = The THC CEMS data points for all three test runs  $i$ .

$\bar{y}$  = The organic HAP average values in ppmw.

$Y_i$  = The organic HAP concentrations for all three test runs  $i$ .

$n$  = The number of data points.

63.1349(b)(7)(viii)(B) You must use your three run average THC CEMS value and your three run average organic HAP concentration from your three 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.

$$TI = (9 / Y1) * X1 \quad (\text{Eq. 13})$$

Where:

TI = The 30-day operating limit for your THC CEMS, ppmw.

Y1 = The average organic HAP concentration from Eq. 12, ppmvd.

X1 = The average THC CEMS concentration from Eq. 12, ppmw.

63.1349(b)(7)(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.

REFER TO REGULATION FOR EQUATION 14

Where:

$X_1$  = The THC CEMS data points for all runs  $i$ .

$n$  = The number of data points.

$Th$  = Your site specific operating limit, in ppmw THC.

63.1349(b)(7)(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

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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.

$$R = (y * t) + (x * (1 - t)) \quad (\text{Eq. 15})$$

Where:

R = Operating limit as THC, ppmw.

y = Average THC CEMS value during mill on operations, ppmw.

t = Percentage of operating time with mill on.

x = Average THC CEMS value during mill off operations, ppmw.

(1-t) = Percentage of operating time with mill off.

63.1349(b)(7)(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.

REFER TO REGULATION FOR EQUATION 16

Where:

$H_{pvi}$  = The hourly parameter value for hour i, ppmw.

n = The number of valid hourly parameter values collected over 30 kiln operating days.

63.1349(b)(7)(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.

63.1349(b)(7)(xiii) If the THC level exceeds by 10 percent or more your site-specific THC emissions limit, you must

63.1349(b)(7)(xiii)(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

63.1349(b)(7)(xiii)(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.

63.1349(b)(8) HCl Emissions Tests with SO<sub>2</sub> Monitoring. If you choose to monitor SO<sub>2</sub> emissions using a CEMS to demonstrate HCl compliance, follow the procedures in (b)(8)(i) through (ix) of this section and in accordance with the requirements of §63.1350(l)(3). You must establish an SO<sub>2</sub> operating limit equal to the average recorded during the HCl stack test. This operating limit will apply only for demonstrating HCl compliance.

63.1349(b)(8)(i) Use Method 321 of appendix A to this part to determine emissions of HCl. 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.

63.1349(b)(8)(ii) At the same time that you are conducting the performance test for HCl, you must also determine a site-specific SO<sub>2</sub> emissions limit by operating an SO<sub>2</sub> CEMS in accordance with the requirements of §63.1350(l). The duration of the performance test must be three hours and the average SO<sub>2</sub> concentration (as calculated from the average output) during the 3-hour test must be calculated. You must establish your SO<sub>2</sub> operating limit and determine compliance with it according to paragraphs (b)(8)(vii) and (viii) of this section.

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63.1349(b)(8)(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 SO<sub>2</sub> levels measured during raw mill on and raw mill off testing.

63.1349(b)(8)(iv) Your SO<sub>2</sub> CEMS must be calibrated and operated according to the requirements of §60.63(f).

63.1349(b)(8)(v) Your SO<sub>2</sub> CEMS measurement scale must be capable of reading SO<sub>2</sub> concentrations consistent with the requirements of §60.63(f), including mill on or mill off operation.

63.1349(b)(8)(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 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 SO<sub>2</sub> levels measured during raw mill on and raw mill off compliance testing with Equation 17.

$$R = (y * t) + x * (t - 1) \quad (\text{Eq. 17})$$

Where:

R = Operating limit as SO<sub>2</sub>, ppmw.

y = Average SO<sub>2</sub> CEMS value during mill on operations, ppmw.

t = Percentage of operating time with mill on, expressed as a decimal.

x = Average SO<sub>2</sub> CEMS value during mill off operations, ppmw.

1-t = Percentage of operating time with mill off, expressed as a decimal.

63.1349(b)(8)(vii) If the average of your three HCl compliance test runs is below 75 percent of your HCl emission limit, you may as a compliance alternative, calculate an operating limit by establishing a relationship of SO<sub>2</sub> CEMS signal to your HCl concentration corrected to 7 percent O<sub>2</sub> by using the SO<sub>2</sub> CEMS instrument zero, the average SO<sub>2</sub> CEMS values corresponding to the three compliance test runs, and the average HCl concentration from the HCl compliance test with the procedures in (b)(8)(vii)(A) through (D) of this section.

63.1349(b)(8)(vii)(A) Determine your SO<sub>2</sub> CEMS instrument zero output with one of the following procedures:

63.1349(b)(8)(vii)(A)(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.

63.1349(b)(8)(vii)(A)(2) Zero point data for extractive instruments may be obtained by removing the extractive probe from the stack and drawing in clean ambient air.

63.1349(b)(8)(vii)(A)(3) The zero point may also be established by performing probe-flood introduction of high purity nitrogen or certified zero air free of SO<sub>2</sub>.

63.1349(b)(8)(vii)(A)(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.

63.1349(b)(8)(vii)(B) Determine your SO<sub>2</sub> CEMS instrument average ppm, and the average of your corresponding three HCl compliance test runs, using Equation 18.

REFER TO REGULATION FOR EQUATION 18

Where:

$\bar{x}$  = The SO<sub>2</sub> CEMS average values in ppmw.

X1 = The SO<sub>2</sub> CEMS data points for the three runs constituting the performance test.

$\bar{y}$  = The HCl average values in ppmw.

Y1 = The HCl emission concentration expressed as ppmv corrected to 7 percent oxygen for the three runs constituting the performance test.

n = The number of data points.

63.1349(b)(8)(vii)(C) With your instrument zero expressed in ppmv, your three run average SO<sub>2</sub> CEMS expressed in

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ppmv, and your three run HCl compliance test average in ppm corrected to 7 percent O<sub>2</sub>, determine a relationship of ppm HCl corrected to 7 percent O<sub>2</sub> per ppm SO<sub>2</sub> with Equation 19.

$$R = Y1 / (X1 - z) \quad (\text{Eq. 19})$$

Where:

R = The relative HCl ppmv corrected to 7 percent O<sub>2</sub> per ppm SO<sub>2</sub> for your SO<sub>2</sub> CEMS.

Y1 = The three run average HCl concentration corrected to 7 percent O<sub>2</sub>.

X1 = The three run average ppm recorded by your SO<sub>2</sub> CEMS.

z = The instrument zero output ppm value.

63.1349(b)(8)(vii)(D) Determine your source specific 30-day rolling average operating limit using ppm HCl corrected to 7 percent O<sub>2</sub> per ppm SO<sub>2</sub> value from Equation 19 in Equation 20, below. This sets your operating limit at the SO<sub>2</sub> CEMS ppm value corresponding to 75 percent of your emission limit.

$$Ol = z + 0.75 (L) / R \quad (\text{Eq. 20})$$

Where:

Ol = The operating limit for your SO<sub>2</sub> CEMS on a 30-day rolling average, in ppmv.

L = Your source HCl emission limit expressed in ppmv corrected to 7 percent O<sub>2</sub>.

z = Your instrument zero in ppmv, determined from (1)(i).

R = The relative oxygen corrected ppmv HCl per ppmv SO<sub>2</sub>, for your SO<sub>2</sub> CEMS, from Equation 19.

63.1349(b)(8)(viii) To determine continuous compliance with the SO<sub>2</sub> operating limit, you must record the SO<sub>2</sub> CEMS output data for all periods when the process is operating and the SO<sub>2</sub> CEMS is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the SO<sub>2</sub> 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 21 to determine the 30 kiln operating day average.

REFER TO REGULATION FOR EQUATION 21

Where:

H<sub>pv</sub> = The hourly parameter value for hour i, ppmw.

n = The number of valid hourly parameter values collected over 30 kiln operating days.

63.1349(b)(8)(ix) Use EPA Method 321 of appendix A to part 60 of this chapter to determine HCl 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.

63.1349(b)(8)(x) If the SO<sub>2</sub> level exceeds by 10 percent or more your site-specific SO<sub>2</sub> emissions limit, you must:

63.1349(b)(8)(x)(A) As soon as possible but no later than 30 days after the exceedance, conduct an inspection and take corrective action to return the SO<sub>2</sub> CEMS measurements to within the established value;

63.1349(b)(8)(x)(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 HCl limit and to verify or re-establish your site-specific SO<sub>2</sub> emissions limit.

63.1349(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.

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63.1349(d) [Reseved]

63.1349(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]

**# 011 [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.**

63.1350(a)

63.1350(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.

63.1350(a)(2) [Reserved]

63.1350(a)(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.

63.1350(a)(4) Any instance where the owner or operator fails to comply with the continuous monitoring requirements of this section is a violation.

63.1350(b) PM monitoring requirements.

63.1350(b)(1)

63.1350(b)(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.

63.1350(b)(1)(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.

63.1350(b)(1)(iii) For any exceedance of the 30 process operating day PM CPMS average value from the established operating parameter limit, you must:

63.1350(b)(1)(iii)(A) Within 48 hours of the exceedance, visually inspect the APCD;

63.1350(b)(1)(iii)(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

63.1350(b)(1)(iii)(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-

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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.

63.1350(b)(1)(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.

63.1350(b)(2) [Reserved]

63.1350(c) [Reserved]

63.1350(d) Clinker production monitoring requirements. In order to determine clinker production, you must:

63.1350(d)(1) Determine hourly clinker production by one of two methods:

63.1350(d)(1)(i) Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates in tons-mass per hour of the amount of clinker produced. The system of measuring hourly clinker production must be maintained within  $\pm 5$  percent accuracy, or

63.1350(d)(1)(ii) Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates in tons-mass per hour of the amount of feed to the kiln. The system of measuring feed must be maintained within  $\pm 5$  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.

63.1350(d)(1)(iii) [Reserved]

63.1350(d)(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).

63.1350(d)(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.

63.1350(d)(4) Develop an emissions monitoring plan in accordance with paragraphs (p)(1) through (p)(4) of this section.

63.1350(e) [Reserved]

63.1350(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.

63.1350(f)(1)

63.1350(f)(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.

63.1350(f)(1)(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.

63.1350(f)(1)(iii) If no visible emissions are observed during the semi-annual test for any affected source, you may



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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.

63.1350(f)(1)(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.

63.1350(f)(1)(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.

63.1350(f)(1)(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.

63.1350(f)(1)(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.

63.1350(f)(2)

63.1350(f)(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.

63.1350(f)(2)(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.

63.1350(f)(2)(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.

63.1350(f)(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.

63.1350(f)(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.

63.1350(f)(4)(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.

63.1350(f)(4)(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.

63.1350(g) D/F monitoring requirements. If you are subject to an emissions limitation on D/F emissions, you must comply



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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.

63.1350(g)(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.

63.1350(g)(1)(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).

63.1350(g)(1)(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.

63.1350(g)(1)(iii) The calibration of all thermocouples and other temperature sensors must be verified at least once every three months.

63.1350(g)(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.

63.1350(g)(3) The required minimum data collection frequency must be one minute.

63.1350(g)(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).

63.1350(g)(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.

63.1350(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.

63.1350(h)(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  $\pm 1$  percent of the rate being measured.

63.1350(h)(1)(i) Verify the calibration of the device at least once every three months.

63.1350(h)(1)(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).

63.1350(h)(1)(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.

63.1350(h)(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).

63.1350(h)(2)(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).

63.1350(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.

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63.1350(i)(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.

63.1350(i)(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.

63.1350(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.

63.1350(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.

63.1350(k)(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  $\mu\text{g}/\text{m}^3$  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.

63.1350(k)(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.

63.1350(k)(2)(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  $\mu\text{g}/\text{m}^3$  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.

63.1350(k)(2)(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  $\pm 10$  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  $\pm 20$  percent of the certified value of the reference gas must be normalized using Equation 22.

REFER TO REGULATION FOR EQUATION 22

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63.1350(k)(2)(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.

63.1350(k)(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:

63.1350(k)(3)(i) For stack Hg concentrations  $>1 \mu\text{g/dscm}$ , =10% of section 1 mass;

63.1350(k)(3)(ii) For stack Hg concentrations  $=1 \mu\text{g/dscm}$  and  $>0.5 \mu\text{g/dscm}$ , =20% of section 1 mass;

63.1350(k)(3)(iii) For stack Hg concentrations  $=0.5 \mu\text{g/dscm}$  and  $>0.1 \mu\text{g/dscm}$ , =50% of section 1 mass; and

63.1350(k)(3)(iv) For stack Hg concentrations  $=0.1 \mu\text{g/dscm}$ , no breakthrough criterion assuming all other QA/QC specifications are met.

63.1350(k)(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.

63.1350(k)(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:

63.1350(k)(5)(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.

63.1350(k)(5)(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.

63.1350(k)(5)(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.

63.1350(k)(5)(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.

63.1350(k)(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

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multiple of 24 hours (except during relative accuracy testing as allowed in PS 12B).

63.1350(l) HCl Monitoring Requirements. If you are subject to an emissions limitation on HCl emissions in §63.1343, you must monitor HCl emissions continuously according to paragraph (l)(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 SO<sub>2</sub> emissions continuously according to paragraph (l)(3) of this section. You must also develop an emissions monitoring plan in accordance with paragraphs (p)(1) through (4) of this section.

63.1350(l)(1) If you monitor compliance with the HCl emissions limit by operating an HCl 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 HCl CEMS in appendix B to part 60 of this chapter. You must operate, maintain, and quality assure a HCl 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 HCl CEMS in accordance with PS 18, you must operate, maintain, and quality assure the HCl 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 (l)(1)(i) and (ii) of this section apply to HCl CEMS other than those installed and certified under PS 15 or PS 18.

63.1350(l)(1)(i) You must use a measurement span value for any HCl CEMS of 0-10 ppm<sub>w</sub> 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 HCl CEMS data recorder output range must include the full range of expected HCl 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.

63.1350(l)(1)(ii) In order to quality assure data measured above the span value, you must use one of the three options in paragraphs (l)(1)(ii)(A) through (C) of this section.

63.1350(l)(1)(ii)(A) Include a second span that encompasses the HCl emission concentrations expected to be encountered during "mill off" conditions. This second span may be rounded to a multiple of 5 ppm of total HCl. The requirements of the appropriate HCl monitor performance specification shall be followed for this second span with the exception that a RATA with the mill off is not required.

63.1350(l)(1)(ii)(B) Quality assure any data above the span value by proving instrument linearity beyond the span value established in paragraph (l)(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 HCl CEMS falls within 10 percent of the certified value of the reference gas. If the value measured by the HCl 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 HCl CEMS to service, or data above span from the HCl CEMS must be subject to the quality assurance procedures established in paragraph (l)(1)(ii)(D) of this section. Any HCl CEMS above span linearity challenge response exceeding  $\pm 20$  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.

63.1350(l)(1)(ii)(C) Quality assure any data above the span value established in paragraph (l)(1)(i) of this section using the following procedure. Any time two consecutive one-hour average measured concentration of HCl exceeds the span value you must, within 24 hours before or after, introduce a higher, "above span" HCl reference gas standard to the HCl 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"

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calibration is successful if the value measured by the HCl CEMS is within 20 percent of the certified value of the reference gas. If the value measured by the HCl CEMS is not 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 (l)(1)(ii)(D) of this section.

63.1350(l)(1)(ii)(D) In the event that the "above span" calibration is not successful (i.e., the HCl 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 HCl CEMS response to the reference gas as shown in Equation 23:

REFER TO REGULATION FOR EQUATION 23

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

63.1350(l)(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.

63.1350(l)(3) If the source is equipped with a wet or dry scrubber or tray tower, and you choose to monitor SO<sub>2</sub> emissions, monitor SO<sub>2</sub> emissions continuously according to the requirements of §60.63(e) and (f) of this chapter. If SO<sub>2</sub> levels increase above the 30-day rolling average SO<sub>2</sub> operating limit established during your performance test by 10 percent or more, you must:

63.1350(l)(3)(i) As soon as possible but no later than 30 days after you exceed the established SO<sub>2</sub> value conduct an inspection and take corrective action to return the SO<sub>2</sub> emissions to within the operating limit; and

63.1350(l)(3)(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 SO<sub>2</sub> CEMS operating limit.

63.1350(l)(4) If you monitor continuous performance through the use of an HCl CPMS according to paragraphs (b)(6)(v)(A) through (H) of §63.1349, for any exceedance of the 30 kiln operating day HCl CPMS average value from the established operating limit, you must:

63.1350(l)(4)(i) Within 48 hours of the exceedance, visually inspect the APCD;

63.1350(l)(4)(ii) If inspection of the APCD identifies the cause of the exceedance, take corrective action as soon as possible and return the HCl CPMS measurement to within the established value; and

63.1350(l)(4)(iii) Within 30 days of the exceedance or at the time of the annual compliance test, whichever comes first, conduct an HCl emissions compliance test to determine compliance with the HCl emissions limit and to verify or reestablish the HCl 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 HCl emissions compliance test required under this paragraph.

63.1350(l)(4)(iv) HCl 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.

63.1350(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.

63.1350(m)(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.

63.1350(m)(2) You must conduct all monitoring in continuous operation at all times that the unit is operating.

63.1350(m)(3) Determine the 1-hour block average of all recorded readings.

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63.1350(m)(4) Record the results of each inspection, calibration, and validation check.

63.1350(m)(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.

63.1350(m)(5)(i) Locate the flow sensor and other necessary equipment in a position that provides a representative flow.

63.1350(m)(5)(ii) Use a flow sensor with a measurement sensitivity of 2 percent of the flow rate.

63.1350(m)(5)(iii) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

63.1350(m)(5)(iv) Conduct a flow sensor calibration check at least semiannually.

63.1350(m)(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.

63.1350(m)(6)(i) Locate the pressure sensor(s) in a position that provides a representative measurement of the pressure.

63.1350(m)(6)(ii) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

63.1350(m)(6)(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.

63.1350(m)(6)(iv) Check pressure tap pluggage daily.

63.1350(m)(6)(v) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

63.1350(m)(6)(vi) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

63.1350(m)(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.

63.1350(m)(7)(i) Locate the pH sensor in a position that provides a representative measurement of wet scrubber or tray tower effluent pH.

63.1350(m)(7)(ii) Ensure the sample is properly mixed and representative of the fluid to be measured.

63.1350(m)(7)(iii) Check the pH meter's calibration on at least two points every 8 hours of process operation.

63.1350(m)(8) [Reserved]

63.1350(m)(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.

63.1350(m)(9)(i) Locate the device in a position(s) that provides a representative measurement of the total sorbent injection rate.

63.1350(m)(9)(ii) Install and calibrate the device in accordance with manufacturer's procedures and specifications.

63.1350(m)(9)(iii) At least annually, calibrate the device in accordance with the manufacturer's procedures and specifications.



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63.1350(m)(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.

63.1350(m)(10)(i) You must install and operate a BLDS for each exhaust stack of the fabric filter.

63.1350(m)(10)(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.

63.1350(m)(10)(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.

63.1350(m)(10)(iv) The BLDS sensor must provide output of relative or absolute PM loadings.

63.1350(m)(10)(v) The BLDS must be equipped with a device to continuously record the output signal from the sensor.

63.1350(m)(10)(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.

63.1350(m)(10)(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.

63.1350(m)(10)(viii) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

63.1350(m)(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:

63.1350(m)(11)(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;

63.1350(m)(11)(ii) Sealing off defective bags or filter media;

63.1350(m)(11)(iii) Replacing defective bags or filter media or otherwise repairing the control device;

63.1350(m)(11)(iv) Sealing off a defective fabric filter compartment;

63.1350(m)(11)(v) Cleaning the BLDS probe or otherwise repairing the BLDS; or

63.1350(m)(11)(vi) Shutting down the process producing the PM emissions.

63.1350(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.

63.1350(n)(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.

63.1350(n)(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.

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63.1350(n)(3) [Reserved]

63.1350(n)(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.

63.1350(n)(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.

63.1350(n)(6) The flow rate monitoring system must be designed to complete a minimum of one cycle of operation for each successive 15-minute period.

63.1350(n)(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).

63.1350(n)(7)(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).

63.1350(n)(7)(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.

63.1350(n)(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.

63.1350(n)(8)(i) The relative accuracy test is to evaluate the flow rate monitoring system alone rather than a continuous emission rate monitoring system.

63.1350(n)(8)(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.

63.1350(n)(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).

63.1350(n)(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).

63.1350(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.

63.1350(o)(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.

63.1350(o)(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.

63.1350(o)(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:

63.1350(o)(3)(i) Data or information justifying the request, such as the technical or economic infeasibility, or the impracticality of using the required approach;



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63.1350(o)(3)(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

63.1350(o)(3)(iii) Data or information documenting that the alternative monitoring requirement would provide equivalent or better assurance of compliance with the relevant emission standard.

63.1350(o)(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:

63.1350(o)(4)(i) Notice of the information and findings upon which the intended disapproval is based; and

63.1350(o)(4)(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.

63.1350(o)(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.

63.1350(o)(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.

63.1350(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.

63.1350(p)(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.

63.1350(p)(1)(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);

63.1350(p)(1)(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and

63.1350(p)(1)(iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations).

63.1350(p)(2) In your site-specific monitoring plan, you must also address paragraphs (p)(2)(i) through (iii) of this section.

63.1350(p)(2)(i) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (c)(3), and (c)(4)(ii);

63.1350(p)(2)(ii) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and

63.1350(p)(2)(iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of

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§63.10(c), (e)(1), and (e)(2)(i).

63.1350(p)(3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.

63.1350(p)(4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

63.1350(p)(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;

63.1350(p)(5)(i) Installation of the BLDS;

63.1350(p)(5)(ii) Initial and periodic adjustment of the BLDS, including how the alarm set-point will be established;

63.1350(p)(5)(iii) Operation of the BLDS, including quality assurance procedures;

63.1350(p)(5)(iv) How the BLDS will be maintained, including a routine maintenance schedule and spare parts inventory list;

63.1350(p)(5)(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]

**# 012 [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.**

63.1351(a) The compliance date for any affected existing source subject to any rule requirements that were in effect before December 20, 2006, is:

63.1351(a)(1) June 14, 2002, for sources that commenced construction before or on March 24, 1998, or

63.1351(a)(2) June 14, 1999 or startup for sources that commenced construction after March 24, 1998.

63.1351(b) The compliance date for any affected existing source subject to any rule requirements that became effective on December 20, 2006, is:

63.1351(b)(1) December 21, 2009, for sources that commenced construction after December 2, 2005 and before or on December 20, 2006, or

63.1351(b)(2) Startup for sources that commenced construction after December 20, 2006.

63.1351(c) The compliance date for existing sources for all the requirements that became effective on February 12, 2013, except for the open clinker pile requirements will be September 9, 2015.

63.1351(d) The compliance date for new sources is February 12, 2013, or startup, whichever is later.

63.1351(e) The compliance date for existing sources with the requirements for open clinker storage piles in §63.1343(c) is February 12, 2014.

[76 FR 2836, Jan. 18, 2011, as amended at 78 FR 10053, Feb. 12, 2013]

**SECTION E. Source Group Restrictions.****# 013 [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.**

63.1352(a) If you are conducting tests to determine the rates of emission of HCl 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.

63.1352(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]

**# 014 [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.**

63.1353(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.

63.1353(b) Each owner or operator subject to the requirements of this subpart shall comply with the notification requirements in §63.9 as follows:

63.1353(b)(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.

63.1353(b)(2) Notification of performance tests, as required by §§63.7 and 63.9(e).

63.1353(b)(3) Notification of opacity and visible emission observations required by §63.1349 in accordance with §§63.6(h)(5) and 63.9(f).

63.1353(b)(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.

63.1353(b)(5) Notification of compliance status, as required by §63.9(h).

63.1353(b)(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]

**# 015 [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.**

63.1354(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

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report sent to the State to satisfy the requirements of this section for that report.

63.1354(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:

63.1354(b)(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.

63.1354(b)(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.

63.1354(b)(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.

63.1354(b)(4)-(5) [Reserved]

63.1354(b)(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.

63.1354(b)(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).

63.1354(b)(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.

63.1354(b)(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:

63.1354(b)(9)(i) All exceedances of maximum control device inlet gas temperature limits specified in §63.1346(a) and (b);

63.1354(b)(9)(ii) Notification of any failure to calibrate thermocouples and other temperature sensors as required under §63.1350(g)(1)(iii) of this subpart; and

63.1354(b)(9)(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).

63.1354(b)(9)(iv) Notification of failure to conduct any combustion system component inspections conducted within the reporting period as required under §63.1347(a)(3).

63.1354(b)(9)(v) Any and all failures to comply with any provision of the operation and maintenance plan developed in

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accordance with §63.1347(a).

63.1354(b)(9)(vi) For each PM CPMS, HCl, Hg, and THC CEMS, SO<sub>2</sub> 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.

63.1354(b)(9)(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.

63.1354(b)(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.

63.1354(b)(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.

63.1354(b)(11)(i)(A) The initial performance test data as recorded under §63.1349(a).

63.1354(b)(11)(i)(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.

63.1354(b)(11)(i)(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.

63.1354(b)(11)(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.

63.1354(b)(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.

63.1354(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]

**# 016 [40 CFR Part 63 NESHAAPS for Source Categories §40 CFR 63.1355]**

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

**SECTION E. Source Group Restrictions.****Recordkeeping requirements.**

63.1355(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.

63.1355(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

63.1355(b)(1) All documentation supporting initial notifications and notifications of compliance status under §63.9;

63.1355(b)(2) All records of applicability determination, including supporting analyses; and

63.1355(b)(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.

63.1355(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).

63.1355(d) [Reserved]

63.1355(e) You must keep records of the daily clinker production rates according to the clinker production monitoring requirements in §63.1350(d).

63.1355(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.

63.1355(g)

63.1355(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.

63.1355(g)(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.

63.1355(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]

**# 017 [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.



**SECTION E. Source Group Restrictions.**

[80 FR 44791, July 27, 2015]

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: SG06 CLINKER COOLERS

Group Description: Clinker Coolers (2)

Sources included in this group

ID	Name
125	CLINKER COOLER #1
126	CLINKER COOLER #2

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.13]****Processes**

No person may permit the emission into the outdoor atmosphere of particulate matter, at any time, either in excess of the rate calculated by the formula listed below 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:

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

where:

A = Allowable emissions in pounds per hour.

E = Emission index = F x W pounds per hour.

F = Process factor in pounds per unit, and

W = Production or charging rate in units per hour.

The F Factor for Portland Cement Clinker Cooler production is 50 pounds per ton of product.

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.****# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The coolers and associated air cleaning devices are subject to the following conditions:

(a) The permittee shall operate the coolers in a manner as not to cause air pollution.

(b) The permittee shall operate and maintain the coolers in a manner consistent with good operating and maintenance practices.



**SECTION E. Source Group Restrictions.****VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: SG08 STORAGE PILES

Group Description: Storage Piles (fugitive)

**Sources included in this group**

ID	Name
177	RAW MATERIAL DRYER (SLAG)
182	COAL HANDLING SYSTEM
183	TIRE HANDLING SYSTEM
200	RAW MATERIAL HANDLING
220	CLINKER HANDLING & STORAGE

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall take the following actions when inspections of the plant find the fugitive particulate emissions from any of the storage areas:

- (a) Investigate the source of the emissions.
- (b) Initiate the appropriate operating procedures.
- (c) Record the problem, results of the investigation, corrective actions taken and the results.

**VII. ADDITIONAL REQUIREMENTS.****# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

This Group Source includes all storage areas at the facility for raw materials, fuels and product that is not located within a building.

\*\*\* **Permit Shield in Effect.** \*\*\*

**SECTION E. Source Group Restrictions.**

Group Name: SG09 STACK SOURCES

Group Description: Process Sources with Stacks

Sources included in this group

ID	Name
210	KILN FEED
220	CLINKER HANDLING & STORAGE
230	CEMENT STORAGE
240	BULK LOADING
250	CEMENT PACKAGING PLANT

**I. RESTRICTIONS.****Emission Restriction(s).**

# 001 [25 Pa. Code §123.13]

**Processes**

No person shall permit the emissions into the outdoor atmosphere of particulate matter from the sources in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grains per dry standard cubic foot.

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

# 002 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

Equipment (a differential manometer or equivalent, as approved by the Department), shall be provided and maintained so that at any time the pressure drop across each fabric collector of the Cement Packaging Plant can be measured.

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: SG10 PMPAL

Group Description: PMPAL Requirements

Sources included in this group

ID	Name
109	RAW GRIND #1 & HEATER
110	RAW GRIND #2 & HEATER
112	RAW GRIND #3 & HEATER
121	PORTLAND CEMENT KILN #1
122	PORTLAND CEMENT KILN #2
125	CLINKER COOLER #1
126	CLINKER COOLER #2
159	FINISH GRIND #1 MILL
160	FINISH GRIND #3 MILL
162	FINISH GRIND #2 MILL
176	FIRE PUMP (EMERGENCY)
177	RAW MATERIAL DRYER (SLAG)
179	PLANT ROADWAYS
180	RAW MATERIAL (SLAG/GYPSUM) TRANSFER
181	SYNTHETIC GYPSUM SYSTEM
182	COAL HANDLING SYSTEM
200	RAW MATERIAL HANDLING
210	KILN FEED
220	CLINKER HANDLING & STORAGE
230	CEMENT STORAGE
240	BULK LOADING
250	CEMENT PACKAGING PLANT
308	KILN LIME BIN #1
420	AUX KILN DRIVE
440	WASH HOUSE BOILER

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) Except as provided in Condition #001 of Group ID SG20, Generic Federal PAL Conditions, in accordance with the plantwide applicability limit (PAL) provisions of 40 CFR 52.21(aa)(7), the total combined particulate matter (PM) emissions, including fugitive emissions, from this facility shall not exceed 232.27 tons in any 12-consecutive month period. The effective period of this PMPAL is 8/20/13 to 8/19/23.

(b) In accordance with the plantwide applicability limit (PAL) provisions of 40 CFR 52.21(aa)(7), emission calculations for compliance with the PMPAL shall include emissions from startups, shutdowns and malfunctions.

(c) In accordance with 40 CFR 52.21(aa)(7)(iii), if the permittee applies to renew a PAL in accordance with 40 CFR 52.21(aa)(10) before the end of the PAL effective period, the PAL permit does not expire at the end of the PAL effective period. The PAL permit remains in effect until the Department issues a revised PAL permit.

(d) In accordance with 40 CFR 52.21(aa)(7)(v), upon expiration of the PAL permit, the permittee is subject to the requirements of subsection 40 CFR 52.21(aa)(9).

**SECTION E. Source Group Restrictions.**

(e) In accordance with 40 CFR 52.21(aa)(7)(vi), the permittee shall use the calculations procedures to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by 40 CFR 52.21(aa)(13)(i).

**II. TESTING REQUIREMENTS.****# 002 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) In accordance with 40 CFR 52.21(aa)(12)(ix), the permittee shall conduct performance testing at least once every 5 years after the issuance date of the PAL to revalidate the site-specific PM emission factor(s), unless the Department determines, in writing, that testing is not required. Specifically, testing shall be conducted on the following sources:

- (1) Raw Grinds (Source ID 112)
- (2) Cement Kilns (Source IDs 121, 122)
- (3) Clinker Coolers (Source IDs 125, 126)
- (4) Finish Mills (Source ID 162)

Note: Refer to Section H for a list of equipment for the sources above.

**III. MONITORING REQUIREMENTS.****# 003 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) In accordance with 40 CFR 52.21(aa)(12), the permittee shall maintain a PM emission tracking system to document compliance with the PMPAL. The system shall, at a minimum, include the following information:

- (1) Raw Grind Heaters (Ids 109, 110, 112)
  - (i) Operating hours
  - (ii) Emission factor determined by stack testing
- (2) Cement Kilns (Ids 121, 122)
  - (i) Operating hours
  - (ii) Clinker production
  - (iii) Feed throughput
  - (iv) Clinker/Raw feed ratio
  - (v) Ash content of bituminous coal
  - (vi) Emission factor determined by stack testing
  - (vii) Continuous Emission Monitoring System (CEMS) complying with applicable performance specifications found in 40 CFR Part 60, Appendix B (relating to performance specifications) after September 9, 2015
- (3) Clinker Coolers (Ids 125, 126)
  - (i) Operating hours
  - (ii) Clinker production
  - (iii) Feed throughput
  - (iv) Emission factor determined by stack testing
  - (v) Continuous Emission Monitoring System (CEMS) complying with applicable performance specifications found in 40 CFR Part 60, Appendix B (relating to performance specifications) after September 9, 2015
- (4) Finish Mill (Ids 159, 160, 162)
  - (i) Operating hours
  - (ii) Emission factor determined by stack testing
- (5) Crushing (Id 103)
  - (i) Operating hours
  - (ii) Emission rate determined by stack testing

**SECTION E. Source Group Restrictions.**

- (6) Handling Operations (Ids 113, 114, 144, 145, 170, 250, 280, 301, 302, 303, 305, 306)
    - (i) Operating hours
    - (ii) Emission factor determined by stack testing or US EPAs AP-42 5th Edition emission factor database
  - (7) Handling Operations (Id 304)
    - (i) Operating hours
    - (ii) Allowable emission rate from 25 Pa Code 123.13 (0.04 gr/dscf) or an emission factor determined by stack testing
  - (8) Storage Operations (Ids 105, 107, 108, 115, 116, 117, 119, 120, 164, 165, 166, 172, 307, 308)
    - (i) Operating hours
    - (ii) Emission factor determined by stack testing or US EPAs AP-42 5th Edition emission factor database
  - (9) Storage Operations (Ids 106, 180)
    - (i) Operating hours
    - (ii) Allowable emission rate from 25 Pa Code 123.13 (0.04 gr/dscf) or an emission factor determined by stack testing
  - (10) Fire Pump & Aux Kiln Drive (Ids 176, 420)
    - (i) Operating hours
    - (ii) Allowable emission rate from 25 Pa Code 123.13 (0.04 gr/dscf) or an emission factor determined by stack testing
  - (11) Slag Dryer (Id 177)
    - (i) Operating hours
    - (ii) Emission factor determined by stack testing
  - (12) Miscellaneous Combustion Sources (Id 440)
    - (i) Operating hours
    - (ii) Fuel throughputs
    - (iii) Heat content of fuel
    - (iv) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database
  - (13) Fugitive Material Handling (Ids Z04 thru Z09, Z11, Z12, Z15, Z18, Z19, Z22, Z23, Z24)
    - (i) Production throughputs
    - (ii) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database
  - (14) Paved/Unpaved Plant Roadways (Ids V500 thru V511)
    - (i) Length & number of trips
    - (ii) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database
  - (15) Batch Drop/Piles
    - (i) Production throughputs
    - (ii) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database
- (b) Failure to use a monitoring system that meets the requirements of this section renders the PAL permit invalid.
- (c) An owner or operator of a facility shall record and report maximum potential emissions without considering enforceable emissions limitations or operational restrictions for an emissions unit during a period of time that there is no monitoring data, unless another method for determining emissions during these periods is specified in the PAL permit.
- (d) Data used to establish the PAL must be revalidated through performance testing or other scientifically valid means approved in writing by the Department. This testing must occur at least once every 5 years after issuance of the PAL permit.

**IV. RECORDKEEPING REQUIREMENTS.**

**# 004 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]**

**Subpart A--General Provisions**

**Actual PALs**

- (a) The following PAL requirements apply to this facility:

**SECTION E. Source Group Restrictions.**

(1) The permittee shall retain a copy of the records necessary to determine compliance with the PAL, including a determination of the 12-month rolling total emissions for each emissions unit, for 5 years. At a minimum, the following shall be maintained:

- (i) Raw Grind Heaters (Ids 109, 110, 112)
  - (A) Operating hours, daily
  - (B) Max volumetric flow rate of each fabric filter
  - (C) Actual emission rate determined by the most recent stack testing
  
- (ii) Cement Kilns (Ids 121, 122)
  - (A) Operating hours, daily
  - (B) Clinker production, daily
  - (C) Feed throughput, daily
  - (D) Clinker/Raw feed ratio
  - (E) Ash content of bituminous coal [for RACT as opposed to PAL purposes]
  - (F) Actual emission rate determined by the most recent stack test
  - (G) CEM data effective 9/9/15
  
- (iii) Clinker Coolers (Ids 125, 126)
  - (A) Operating hours, daily
  - (B) Clinker production, daily
  - (C) Feed throughput, daily [for RACT as opposed to PAL purposes]
  - (D) Max volumetric flow rate of each fabric filter
  - (E) Actual emission rate determined by the most recent stack test
  - (F) CEM data effective 9/9/15
  
- (iv) Finish Mill (Ids 159, 160, 162)
  - (A) Operating hours, daily
  - (B) Max volumetric flow rate of each fabric filter
  - (C) Actual emission rate determined by the most recent stack test
  
- (v) Crushing (Id 103)
  - (A) Operating hours, daily
  - (B) Max volumetric flow rate of each fabric filter
  - (C) Actual emission rate determined by the most recent stack test
  
- (vi) Handling Operations (Ids 113, 114, 144, 145, 170, 250, 280, 301, 302, 303, 305, 306)
  - (A) Operating hours, daily
  - (B) Max volumetric flow rate of each fabric filter
  - (C) Emission factor used & source of emission factor (testing, AP-42, etc)
  
- (vii) Handling Operations (Id 304)
  - (A) Operating hours, daily
  - (B) Max volumetric flow rate of each fabric filter
  - (C) Emission factor used & source of emission factor (testing, AP-42, etc)
  
- (viii) Storage Operations (Ids 105, 107, 108, 115, 116, 117, 119, 120, 164, 165, 166, 172, 307, 308)
  - (A) Operating hours, daily
  - (B) Max volumetric flow rate of each fabric filter
  - (C) Emission factor used & source of emission factor (testing, AP-42, etc)
  
- (ix) Storage Operations (Ids 106, 180)
  - (A) Operating hours, daily
  - (B) Max volumetric flow rate of each fabric filter
  - (C) Emission factor used & source of emission factor (testing, AP-42, etc)
  
- (x) Slag Dryer (Id 177)

**SECTION E. Source Group Restrictions.**

- (A) Operating hours, daily
- (B) Max volumetric flow rate of each fabric filter
- (C) Actual emission rate determined by the most recent stack test
  
- (xi) Miscellaneous Combustion Sources (Id 440)
  - (A) Operating hours, daily
  - (B) Fuel throughput, daily
  - (C) Heat content of fuels
  - (D) Emission factor used & source of emission factor (testing, AP-42, etc)
  
- (xii) Fire Pump & Aux Kiln Drive (Ids 176, 420)
  - (A) Operating hours, daily
  - (B) Max volumetric flow rate of each exhaust
  - (C) Emission factor used & source of emission factor (testing, AP-42, etc)
  
- (xiii) Fugitive Material Handling (Ids Z04 thru Z09, Z11, Z12, Z15, Z18, Z18, Z19, Z22, Z23, Z24)
  - (A) Production records, daily
  - (B) Emission factor used & source of emission factor (testing, AP-42, etc)
  
- (xiv) Paved/Unpaved Plant Roadways (Ids V500 thru V511)
  - (A) Miles traveled on plant roadways, daily
  - (B) Number of trips, daily
  - (C) Emission factor used & source of emission factor (testing, AP-42, etc)
  
- (xv) Batch Drop/Piles
  - (A) Production records, daily
  - (B) Company-specific emission factor for each source
  - (C) Surface area of each pile, daily
  - (D) Emission factor derived from wind velocity and friction velocity

(2) The permittee shall retain a copy of the following records for the duration of the PAL effective period and 5 years after the PAL permit expires:

(i) A copy of the PAL permit application and applications for revisions to the PAL permit.

(ii) Each annual certification of compliance required under Title V of the Clean Air Act (42 U.S.C.A. § 7661-7661f) and regulations adopted under the act and the data relied on in certifying the compliance.

(b) The records required under 40 CFR 52.21(aa)(13) shall be retrievable onsite.

[40 CFR 52.21(aa)(13) & (aa)(7)(viii)]

[Compliance with this permit condition assures compliance with RACT OP 06-01002]

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

**# 005 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

This PM PAL is subject to the Federal PAL conditions in SG20, Generic Federal PAL Requirements.





**SECTION E. Source Group Restrictions.**

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: SG11 PM10 PAL

Group Description: PM10 PAL Requirements

Sources included in this group

ID	Name
109	RAW GRIND #1 & HEATER
110	RAW GRIND #2 & HEATER
112	RAW GRIND #3 & HEATER
121	PORTLAND CEMENT KILN #1
122	PORTLAND CEMENT KILN #2
125	CLINKER COOLER #1
126	CLINKER COOLER #2
159	FINISH GRIND #1 MILL
160	FINISH GRIND #3 MILL
162	FINISH GRIND #2 MILL
176	FIRE PUMP (EMERGENCY)
177	RAW MATERIAL DRYER (SLAG)
179	PLANT ROADWAYS
180	RAW MATERIAL (SLAG/GYPSUM) TRANSFER
181	SYNTHETIC GYPSUM SYSTEM
182	COAL HANDLING SYSTEM
200	RAW MATERIAL HANDLING
210	KILN FEED
220	CLINKER HANDLING & STORAGE
230	CEMENT STORAGE
240	BULK LOADING
250	CEMENT PACKAGING PLANT
308	KILN LIME BIN #1
420	AUX KILN DRIVE
440	WASH HOUSE BOILER

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) Except as provided in Condition #001 of Group ID SG20, Generic Federal PAL Conditions, in accordance with the plantwide applicability limit (PAL) provisions of 40 CFR 52.21(aa)(7), the total combined (filterable & condensable) particulate matter with an aerodynamic radius less than 10 um (PM10) emissions, including fugitive emissions, from this facility shall not exceed 330.37 tons in any 12-consecutive month period. The effective period of this PM10 PAL is 8/20/13 to 8/19/23.

(b) In accordance with the plantwide applicability limit (PAL) provisions of 40 CFR 52.21(aa)(7), emission calculations for compliance with the PM10 PAL shall include emissions from startups, shutdowns and malfunctions.

(c) In accordance with 40 CFR 52.21(aa)(7)(iii), if the permittee applies to renew a PAL in accordance with 40 CFR 52.21(aa)(10) before the end of the PAL effective period, the PAL permit does not expire at the end of the PAL effective period. The PAL permit remains in effect until the Department issues a revised PAL permit.

(d) In accordance with 40 CFR 52.21(aa)(7)(v), upon expiration of the PAL permit, the permittee is subject to the requirements of subsection 40 CFR 52.21(aa)(9).

**SECTION E. Source Group Restrictions.**

(e) In accordance with 40 CFR 52.21(aa)(7)(vi), the permittee shall use the calculations procedures to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by 40 CFR 52.21(aa)(13)(i).

**II. TESTING REQUIREMENTS.****# 002 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) In accordance with 40 CFR 52.21(aa)(12)(ix), the permittee shall conduct performance testing at least once every 5 years after the issuance date of the PAL to revalidate the site-specific PM10 emission factor(s), unless the Department determines, in writing, that testing is not required. Specifically, testing shall be conducted on the following sources:

- (1) Raw Grinds (Source ID 112)
- (2) Cement Kilns (Source IDs 121, 122)
- (3) Clinker Coolers (Source IDs 125, 126)
- (4) Finish Mills (Source ID 162)

Note: Refer to Section H for a list of equipment for the sources above.

**III. MONITORING REQUIREMENTS.****# 003 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) In accordance with 40 CFR 52.21(aa)(12), the permittee shall maintain a PM10 emission tracking system to document compliance with the PM10 PAL. The system shall, at a minimum, include the following information:

- (1) Raw Grind Heaters (Ids 109, 110, 112)
  - (i) Operating hours
  - (ii) Emission factor determined by stack testing
- (2) Cement Kilns (Ids 121, 122)
  - (i) Operating hours
  - (ii) Clinker production
  - (iii) Feed throughput
  - (iv) Clinker/Raw feed ratio
  - (v) Ash content of bituminous coal
  - (vi) Emission factor determined by stack testing
  - (vii) Continuous Emission Monitoring System (CEMS) complying with applicable performance specifications found in 40 CFR Part 60, Appendix B (relating to performance specifications) after September 9, 2015
- (3) Clinker Coolers (Ids 125, 126)
  - (i) Operating hours
  - (ii) Clinker production
  - (iii) Feed throughput
  - (iv) Emission factor determined by stack testing
  - (v) Continuous Emission Monitoring System (CEMS) complying with applicable performance specifications found in 40 CFR Part 60, Appendix B (relating to performance specifications) after September 9, 2015
- (4) Finish Mill (Ids 159, 160, 162)
  - (i) Operating hours
  - (ii) Emission factor determined by stack testing
- (5) Crushing (Id 103)
  - (i) Operating hours
  - (ii) Emission rate determined by stack testing

**SECTION E. Source Group Restrictions.**

- (6) Handling Operations (Ids 113, 114, 144, 145, 170, 250, 280, 301, 302, 303, 305, 306)
    - (i) Operating hours
    - (ii) Emission factor determined by stack testing or US EPAs AP-42 5th Edition emission factor database
  - (7) Handling Operations (Id 304)
    - (i) Operating hours
    - (ii) Allowable emission rate from 25 Pa Code 123.13 (0.04 gr/dscf) or an emission factor determined by stack testing
  - (8) Storage Operations (Ids 105, 107, 108, 115, 116, 117, 119, 120, 164, 165, 166, 172, 307, 308)
    - (i) Operating hours
    - (ii) Emission factor determined by stack testing or US EPAs AP-42 5th Edition emission factor database
  - (9) Storage Operations (Ids 106, 180)
    - (i) Operating hours
    - (ii) Allowable emission rate from 25 Pa Code 123.13 (0.04 gr/dscf) or an emission factor determined by stack testing
  - (10) Fire Pump & Aux Kiln Drive (Ids 176, 420)
    - (i) Operating hours
    - (ii) Allowable emission rate from 25 Pa Code 123.13 (0.04 gr/dscf) or an emission factor determined by stack testing
  - (11) Slag Dryer (Id 177)
    - (i) Operating hours
    - (ii) Emission factor determined by stack testing
  - (12) Miscellaneous Combustion Sources (Id 440)
    - (i) Operating hours
    - (ii) Fuel throughputs
    - (iii) Heat content of fuel
    - (iv) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database
  - (13) Fugitive Material Handling (Ids Z04 thru Z09, Z11, Z12, Z15, Z18, Z19, Z22, Z23, Z24)
    - (i) Production throughputs
    - (ii) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database
  - (14) Paved/Unpaved Plant Roadways (Ids V500 thru V511)
    - (i) Length & number of trips
    - (ii) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database
  - (15) Batch Drop/Piles
    - (i) Production throughputs
    - (ii) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database
- (b) Failure to use a monitoring system that meets the requirements of this section renders the PAL permit invalid.
- (c) An owner or operator of a facility shall record and report maximum potential emissions without considering enforceable emissions limitations or operational restrictions for an emissions unit during a period of time that there is no monitoring data, unless another method for determining emissions during these periods is specified in the PAL permit.
- (d) Data used to establish the PAL must be revalidated through performance testing or other scientifically valid means approved in writing by the Department. This testing must occur at least once every 5 years after issuance of the PAL permit.

**IV. RECORDKEEPING REQUIREMENTS.**

**# 004 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]**

**Subpart A--General Provisions**

**Actual PALs**

- (a) The following PAL requirements apply to this facility:

**SECTION E. Source Group Restrictions.**

(1) The permittee shall retain a copy of the records necessary to determine compliance with the PAL, including a determination of the 12-month rolling total emissions for each emissions unit, for 5 years. At a minimum, the following shall be maintained:

- (i) Raw Grind Heaters (Ids 109, 110, 112)
  - (A) Operating hours, daily
  - (B) Max volumetric flow rate of each fabric filter
  - (C) Actual emission rate determined by the most recent stack testing
  
- (ii) Cement Kilns (Ids 121, 122)
  - (A) Operating hours, daily
  - (B) Clinker production, daily
  - (C) Feed throughput, daily
  - (D) Clinker/Raw feed ratio
  - (E) Ash content of bituminous coal [for RACT as opposed to PAL purposes]
  - (F) Actual emission rate determined by the most recent stack test
  - (G) CEM data effective 9/9/15
  
- (iii) Clinker Coolers (Ids 125, 126)
  - (A) Operating hours, daily
  - (B) Clinker production, daily
  - (C) Feed throughput, daily [for RACT as opposed to PAL purposes]
  - (D) Max volumetric flow rate of each fabric filter
  - (E) Actual emission rate determined by the most recent stack test
  - (F) CEM data effective 9/9/15
  
- (iv) Finish Mill (Ids 159, 160, 162)
  - (A) Operating hours, daily
  - (B) Max volumetric flow rate of each fabric filter
  - (C) Actual emission rate determined by the most recent stack test
  
- (v) Crushing (Id 103)
  - (A) Operating hours, daily
  - (B) Max volumetric flow rate of each fabric filter
  - (C) Actual emission rate determined by the most recent stack test
  
- (vi) Handling Operations (Ids 113, 114, 144, 145, 170, 250, 280, 301, 302, 303, 305, 306)
  - (A) Operating hours, daily
  - (B) Max volumetric flow rate of each fabric filter
  - (C) Emission factor used & source of emission factor (testing, AP-42, etc)
  
- (vii) Handling Operations (Id 304)
  - (A) Operating hours, daily
  - (B) Max volumetric flow rate of each fabric filter
  - (C) Emission factor used & source of emission factor (testing, AP-42, etc)
  
- (viii) Storage Operations (Ids 105, 107, 108, 115, 116, 117, 119, 120, 164, 165, 166, 172, 307, 308)
  - (A) Operating hours, daily
  - (B) Max volumetric flow rate of each fabric filter
  - (C) Emission factor used & source of emission factor (testing, AP-42, etc)
  
- (ix) Storage Operations (Ids 106, 180)
  - (A) Operating hours, daily
  - (B) Max volumetric flow rate of each fabric filter
  - (C) Emission factor used & source of emission factor (testing, AP-42, etc)
  
- (x) Slag Dryer (Id 177)

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- (A) Operating hours, daily
- (B) Max volumetric flow rate of each fabric filter
- (C) Actual emission rate determined by the most recent stack test
  
- (xi) Miscellaneous Combustion Sources (Id 440)
  - (A) Operating hours, daily
  - (B) Fuel throughput, daily
  - (C) Heat content of fuels
  - (D) Emission factor used & source of emission factor (testing, AP-42, etc)
  
- (xii) Fire Pump & Aux Kiln Drive (Ids 176, 420)
  - (A) Operating hours, daily
  - (B) Max volumetric flow rate of each exhaust
  - (C) Emission factor used & source of emission factor (testing, AP-42, etc)
  
- (xiii) Fugitive Material Handling (Ids Z04 thru Z09, Z11, Z12, Z15, Z18, Z18, Z19, Z22, Z23, Z24)
  - (A) Production records, daily
  - (B) Emission factor used & source of emission factor (testing, AP-42, etc)
  
- (xiv) Paved/Unpaved Plant Roadways (Ids V500 thru V511)
  - (A) Miles traveled on plant roadways, daily
  - (B) Number of trips, daily
  - (C) Emission factor used & source of emission factor (testing, AP-42, etc)
  
- (xv) Batch Drop/Piles
  - (A) Production records, daily
  - (B) Company-specific emission factor for each source
  - (C) Surface area of each pile, daily
  - (D) Emission factor derived from wind velocity and friction velocity

(2) The permittee shall retain a copy of the following records for the duration of the PAL effective period and 5 years after the PAL permit expires:

(i) A copy of the PAL permit application and applications for revisions to the PAL permit.

(ii) Each annual certification of compliance required under Title V of the Clean Air Act (42 U.S.C.A. § 7661-7661f) and regulations adopted under the act and the data relied on in certifying the compliance.

(b) The records required under 40 CFR 52.21(aa)(13) shall be retrievable onsite.

[40 CFR 52.21(aa)(13) & (aa)(7)(viii)]

[Compliance with this permit condition assures compliance with RACT OP 06-01002]

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

**# 005 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

This PM10 PAL is subject to the Federal PAL conditions in SG20, Generic Federal PAL Requirements.



**SECTION E. Source Group Restrictions.**

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: SG12 PM2.5 PAL

Group Description: PM2.5 PAL Requirements

**Sources included in this group**

ID	Name
109	RAW GRIND #1 & HEATER
110	RAW GRIND #2 & HEATER
112	RAW GRIND #3 & HEATER
121	PORTLAND CEMENT KILN #1
122	PORTLAND CEMENT KILN #2
125	CLINKER COOLER #1
126	CLINKER COOLER #2
159	FINISH GRIND #1 MILL
160	FINISH GRIND #3 MILL
162	FINISH GRIND #2 MILL
176	FIRE PUMP (EMERGENCY)
177	RAW MATERIAL DRYER (SLAG)
179	PLANT ROADWAYS
180	RAW MATERIAL (SLAG/GYPSUM) TRANSFER
181	SYNTHETIC GYPSUM SYSTEM
182	COAL HANDLING SYSTEM
200	RAW MATERIAL HANDLING
210	KILN FEED
220	CLINKER HANDLING & STORAGE
230	CEMENT STORAGE
240	BULK LOADING
250	CEMENT PACKAGING PLANT
308	KILN LIME BIN #1
420	AUX KILN DRIVE
440	WASH HOUSE BOILER

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) Except as provided in Condition #001 of Group ID SG20, Generic Federal PAL Conditions, in accordance with the plantwide applicability limit (PAL) provisions of 40 CFR 52.21(aa)(7), the total combined (filterable & condensable) particulate matter with an aerodynamic radius less than 2.5 um (PM2.5) emissions, including fugitive emissions, from this facility shall not exceed 286.25 tons in any 12-consecutive month period. The effective period of this PM2.5 PAL is 8/20/13 to 8/19/23.

(b) In accordance with the plantwide applicability limit (PAL) provisions of 40 CFR 52.21(aa)(7), emission calculations for compliance with the PM2.5 PAL shall include emissions from startups, shutdowns and malfunctions.

(c) In accordance with 40 CFR 52.21(aa)(7)(iii), if the permittee applies to renew a PAL in accordance with 40 CFR 52.21(aa)(10) before the end of the PAL effective period, the PAL permit does not expire at the end of the PAL effective period. The PAL permit remains in effect until the Department issues a revised PAL permit.

(d) In accordance with 40 CFR 52.21(aa)(7)(v), upon expiration of the PAL permit, the permittee is subject to the requirements of subsection 40 CFR 52.21(aa)(9).



**SECTION E. Source Group Restrictions.**

(e) In accordance with 40 CFR 52.21(aa)(7)(vi), the permittee shall use the calculations procedures to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by 40 CFR 52.21(aa)(13)(i).

**II. TESTING REQUIREMENTS.****# 002 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) In accordance with 40 CFR 52.21(aa)(12)(ix), the permittee shall conduct performance testing at least once every 5 years after the issuance date of the PAL to revalidate the site-specific PM<sub>2.5</sub> emission factor(s), unless the Department determines, in writing, that testing is not required. Specifically, testing shall be conducted on the following sources:

- (1) Raw Grind (Source IDs 112)
- (2) Cement Kilns (Source IDs 121, 122)
- (3) Clinker Coolers (Source IDs 125, 126)
- (4) Finish Mill (Source ID 162)
- (5) Handling Operations (Source IDs 113 or 114, 301, 302, 303, 304, 305, 306)
- (6) Conveying & Storage (Source IDs 115 or 116, 117, 119 or 120, 307, 308)
- (7) Raw Material Dryer (Slag) (Source ID 177)

Note: Refer to Section H for a list of equipment for the sources above.

**III. MONITORING REQUIREMENTS.****# 003 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) In accordance with 40 CFR 52.21(aa)(12), the permittee shall maintain a PM<sub>2.5</sub> emission tracking system to document compliance with the PM<sub>2.5</sub> PAL. The system shall, at a minimum, include the following information:

- (1) Raw Grind Heaters (Ids 109, 110, 112)
  - (i) Operating hours
  - (ii) Emission factor determined by stack testing
- (2) Cement Kilns (Ids 121, 122)
  - (i) Operating hours
  - (ii) Clinker production
  - (iii) Feed throughput
  - (iv) Clinker/Raw feed ratio
  - (v) Ash content of bituminous coal
  - (vi) Emission factor determined by stack testing
  - (vii) Continuous Emission Monitoring System (CEMS) complying with applicable performance specifications found in 40 CFR Part 60, Appendix B (relating to performance specifications) after September 9, 2015
- (3) Clinker Coolers (Ids 125, 126)
  - (i) Operating hours
  - (ii) Clinker production
  - (iii) Feed throughput
  - (iv) Emission factor determined by stack testing
  - (v) Continuous Emission Monitoring System (CEMS) complying with applicable performance specifications found in 40 CFR Part 60, Appendix B (relating to performance specifications) after September 9, 2015
- (4) Finish Mill (Ids 159, 160, 162)
  - (i) Operating hours
  - (ii) Emission factor determined by stack testing

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- (5) Crushing (Id 103)
    - (i) Operating hours
    - (ii) Emission factor determined by stack testing or US EPAs AP-42 5th Edition emission factor database
  - (6) Handling Operations (Ids 113, 114, 144, 145, 170, 250, 280, 301, 302, 303, 305, 306)
    - (i) Operating hours
    - (ii) Emission factor determined by stack testing or US EPAs AP-42 5th Edition emission factor database
  - (7) Handling Operations (Id 304)
    - (i) Operating hours
    - (ii) Allowable emission rate from 25 Pa Code 123.13 (0.04 gr/dscf) or an emission factor determined by stack testing
  - (8) Storage Operations (Ids 105, 107, 108, 115, 116, 117, 119, 120, 164, 165, 166, 172, 307, 308)
    - (i) Operating hours
    - (ii) Emission factor determined by stack testing or US EPAs AP-42 5th Edition emission factor database
  - (9) Storage Operations (Ids 106, 180)
    - (i) Operating hours
    - (ii) Allowable emission rate from 25 Pa Code 123.13 (0.04 gr/dscf) or an emission factor determined by stack testing
  - (10) Fire Pump & Aux Kiln Drive (Ids 176, 420)
    - (i) Operating hours
    - (ii) Allowable emission rate from 25 Pa Code 123.13 (0.04 gr/dscf) or an emission factor determined by stack testing
  - (11) Slag Dryer (Id 177)
    - (i) Operating hours
    - (ii) Emission factor determined by stack testing
  - (12) Miscellaneous Combustion Sources (Id 440)
    - (i) Operating hours
    - (ii) Fuel throughputs
    - (iii) Heat content of fuel
    - (iv) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database
  - (13) Fugitive Material Handling (Ids Z04 thru Z09, Z11, Z12, Z15, Z18, Z19, Z22, Z23, Z24)
    - (i) Production throughputs
    - (ii) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database
  - (14) Paved/Unpaved Plant Roadways (Ids V500 thru V511)
    - (i) Length & number of trips
    - (ii) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database
  - (15) Batch Drop/Piles
    - (i) Production throughputs
    - (ii) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database
- (b) Failure to use a monitoring system that meets the requirements of this section renders the PAL permit invalid.
- (c) An owner or operator of a facility shall record and report maximum potential emissions without considering enforceable emissions limitations or operational restrictions for an emissions unit during a period of time that there is no monitoring data, unless another method for determining emissions during these periods is specified in the PAL permit.
- (d) Data used to establish the PAL must be revalidated through performance testing or other scientifically valid means approved in writing by the Department. This testing must occur at least once every 5 years after issuance of the PAL permit.

**SECTION E. Source Group Restrictions.****IV. RECORDKEEPING REQUIREMENTS.****# 004 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) The following PAL requirements apply to this facility:

(1) The permittee shall retain a copy of the records necessary to determine compliance with the PAL, including a determination of the 12-month rolling total emissions for each emissions unit, for 5 years. At a minimum, the following shall be maintained:

- (i) Raw Grind Heaters (Ids 109, 110, 112)
  - (A) Operating hours, daily
  - (B) Max volumetric flow rate of each fabric filter
  - (C) Actual emission rate determined by the most recent stack testing
  
- (ii) Cement Kilns (Ids 121, 122)
  - (A) Operating hours, daily
  - (B) Clinker production, daily
  - (C) Feed throughput, daily
  - (D) Clinker/Raw feed ratio
  - (E) Ash content of bituminous coal [for RACT as opposed to PAL purposes]
  - (F) Actual emission rate determined by the most recent stack test
  - (G) CEM data effective 9/9/15
  
- (iii) Clinker Coolers (Ids 125, 126)
  - (A) Operating hours, daily
  - (B) Clinker production, daily
  - (C) Feed throughput, daily [for RACT as opposed to PAL purposes]
  - (D) Max volumetric flow rate of each fabric filter
  - (E) Actual emission rate determined by the most recent stack test
  - (F) CEM data effective 9/9/15
  
- (iv) Finish Mill (Ids 159, 160, 162)
  - (A) Operating hours, daily
  - (B) Max volumetric flow rate of each fabric filter
  - (C) Actual emission rate determined by the most recent stack test
  
- (v) Crushing (Id 103)
  - (A) Operating hours, daily
  - (B) Emission factor used & source of emission factor (testing, AP-42, etc)
  
- (vi) Handling Operations (Ids 113, 114, 144, 145, 170, 250, 280, 301, 302, 303, 305, 306)
  - (A) Operating hours, daily
  - (B) Max volumetric flow rate of each fabric filter
  - (C) Emission factor used & source of emission factor (testing, AP-42, etc)
  
- (vii) Handling Operations (Id 304)
  - (A) Operating hours, daily
  - (B) Max volumetric flow rate of each fabric filter
  - (C) Emission factor used & source of emission factor (testing, AP-42, etc)
  
- (viii) Storage Operations (Ids 105, 107, 108, 115, 116, 117, 119, 120, 164, 165, 166, 172, 307, 308)
  - (A) Operating hours, daily
  - (B) Max volumetric flow rate of each fabric filter
  - (C) Emission factor used & source of emission factor (testing, AP-42, etc)
  
- (ix) Storage Operations (Ids 106, 180)
  - (A) Operating hours, daily

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- (B) Max volumetric flow rate of each fabric filter
- (C) Emission factor used & source of emission factor (testing, AP-42, etc)

## (x) Slag Dryer (Id 177)

- (A) Operating hours, daily
- (B) Actual emission rate determined by the most recent stack test

## (xi) Miscellaneous Combustion Sources (Id 440)

- (A) Operating hours, daily
- (B) Fuel throughput, daily
- (C) Heat content of fuels
- (D) Emission factor used & source of emission factor (testing, AP-42, etc)

## (xii) Fire Pump &amp; Aux Kiln Drive (Ids 176, 420)

- (A) Operating hours, daily
- (B) Max volumetric flow rate of each exhaust
- (C) Emission factor used & source of emission factor (testing, AP-42, etc)

## (xiii) Fugitive Material Handling (Ids Z04 thru Z09, Z11, Z12, Z15, Z18, Z18, Z19, Z22, Z23, Z24)

- (A) Production records, daily
- (B) Emission factor used & source of emission factor (testing, AP-42, etc)

## (xiv) Paved/Unpaved Plant Roadways (Ids V500 thru V511)

- (A) Miles traveled on plant roadways, daily
- (B) Number of trips, daily
- (C) Emission factor used & source of emission factor (testing, AP-42, etc)

## (xv) Batch Drop/Piles

- (A) Production records, daily
- (B) Company-specific emission factor for each source
- (C) Surface area of each pile, daily
- (D) Emission factor derived from wind velocity and friction velocity

(2) The permittee shall retain a copy of the following records for the duration of the PAL effective period and 5 years after the PAL permit expires:

(i) A copy of the PAL permit application and applications for revisions to the PAL permit.

(ii) Each annual certification of compliance required under Title V of the Clean Air Act (42 U.S.C.A. § § 7661-7661f) and regulations adopted under the act and the data relied on in certifying the compliance.

(b) The records required under 40 CFR 52.21(aa)(13) shall be retrievable onsite.

[40 CFR 52.21(aa)(13) & (aa)(7)(viii)]

[Compliance with this permit condition assures compliance with RACT OP 06-01002]

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**SECTION E. Source Group Restrictions.****VII. ADDITIONAL REQUIREMENTS.****# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

This PM2.5 PAL is subject to the Federal PAL conditions in SG20, Generic Federal PAL Requirements.

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: SG13 CO PAL

Group Description: CO PAL Requirements

Sources included in this group

ID	Name
109	RAW GRIND #1 & HEATER
110	RAW GRIND #2 & HEATER
112	RAW GRIND #3 & HEATER
121	PORTLAND CEMENT KILN #1
122	PORTLAND CEMENT KILN #2
176	FIRE PUMP (EMERGENCY)
177	RAW MATERIAL DRYER (SLAG)
200	RAW MATERIAL HANDLING
420	AUX KILN DRIVE
440	WASH HOUSE BOILER

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) Except as provided in Condition #001 of Group ID SG20, Generic Federal PAL Conditions, in accordance with the plantwide applicability limit (PAL) provisions of 40 CFR 52.21(aa)(7), the total combined carbon monoxide (CO) emissions, including fugitive emissions, from this facility shall not exceed 357.74 tons in any 12-consecutive month period. The effective period of this CO PAL is 8/20/13 to 8/19/23.

(b) In accordance with the plantwide applicability limit (PAL) provisions of 40 CFR 52.21(aa)(7), emission calculations for compliance with the CO PAL shall include emissions from startups, shutdowns and malfunctions.

(c) In accordance with 40 CFR 52.21(aa)(7)(iii), if the permittee applies to renew a PAL in accordance with 40 CFR 52.21(aa)(10) before the end of the PAL effective period, the PAL permit does not expire at the end of the PAL effective period. The PAL permit remains in effect until the Department issues a revised PAL permit.

(d) In accordance with 40 CFR 52.21(aa)(7)(v), upon expiration of the PAL permit, the permittee is subject to the requirements of subsection 40 CFR 52.21(aa)(9).

(e) In accordance with 40 CFR 52.21(aa)(7)(vi), the permittee shall use the calculations procedures to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by 40 CFR 52.21(aa)(13)(i).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.****# 002 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) In accordance with 40 CFR 52.21(aa)(12), the permittee shall maintain a CO emission tracking system to document compliance with the CO PAL. The system shall, at a minimum, include the following information:

- (1) Raw Grind Heaters (Ids 109, 110, 112)
  - (i) Operating hours

**SECTION E. Source Group Restrictions.**

- (ii) Fuel throughput
- (iii) Emission factor determined by stack testing or US EPAs AP-42 5th Edition emission factor database

## (2) Cement Kilns (Ids 121, 122)

(i) Continuous Emission Monitoring System (CEMS) complying with applicable performance specifications found in 40 CFR Part 60, Appendix B (relating to performance specifications).

## (3) Fire Pump (Id 176)

- (i) Operating hours
- (ii) Heat content of fuel
- (iii) Fuel throughput
- (iv) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database.

## (4) Aux Kiln Drive (Id 420)

- (i) Operating hours
- (ii) Heat content of fuel
- (iii) Fuel throughput
- (iv) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database.

## (5) Slag Dryer (Id 177)

- (i) Operating hours
- (ii) Slag throughput
- (iii) An emission factor determined by 7/97 stack testing

## (6) Miscellaneous Combustion Sources (Id 440)

- (i) Operating hours
- (ii) Fuel throughputs
- (iii) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database.

(b) Failure to use a monitoring system that meets the requirements of this section renders the PAL permit invalid.

(c) Recording and reporting of emissions:

(1) The following alternative method may be used by the permittee to record and report emissions for the purposes of PAL compliance for Sources 121 and 122 during periods of time when there is no monitoring data: the permittee may record and report CEMS data in accordance with Department-approved data substitution methodology.

(2) Unless an approved alternative method is used, the permittee shall record and report maximum potential emissions for the purposes of PAL compliance, without considering enforceable emissions limitations or operational restrictions, for an emissions unit during a period of time that there is no monitoring data.

(d) Data used to establish the PAL must be revalidated through performance testing or other scientifically valid means approved in writing by the Department. This testing must occur at least once every 5 years after issuance of the PAL permit.

**IV. RECORDKEEPING REQUIREMENTS.****# 003 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) The following PAL requirements apply to this facility:

(1) The permittee shall retain a copy of the records necessary to determine compliance with the PAL, including a determination of the 12-month rolling total emissions for each emissions unit, for 5 years. At a minimum, the following shall be maintained:

- (i) Raw Grind Heaters (Ids 109, 110, 112)
  - (A) Operating hours, daily
  - (B) Fuel usage, by type, daily

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(C) Emission factor used & source of emission factor (testing, AP-42, etc)

(ii) Cement Kilns (Ids 121, 122)

(A) Continuous Emission Monitoring System (CEMS) data. Readings shall be taken and recorded at least every 15 minutes while the emissions unit is operating

(iii) Fire Pump (Id 176)

(A) Operating hours, daily

(B) Fuel usage by type, daily

(C) Heat content of fuels

(D) Emission factor used & source of emission factor (testing, AP-42, etc)

(iv) Aux Kiln Drive (Id 420)

(A) Operating hours, daily

(B) Fuel usage by type, daily

(C) Heat content of fuels

(D) Emission factor used & source of emission factor (testing, AP-42, etc)

(v) Slag Dryer (Id 177)

(A) Operating hours, daily

(B) Slag throughput, daily

(C) Actual emission rate determined by the most recent stack test

(vi) Miscellaneous Combustion Sources (Id 440)

(A) Operating hours, daily

(B) Fuel usage by type, daily

(C) Heat content of fuels

(D) Emission factor used & source of emission factor (testing, AP-42, etc)

(2) The permittee shall retain a copy of the following records for the duration of the PAL effective period and 5 years after the PAL permit expires:

(i) A copy of the PAL permit application and applications for revisions to the PAL permit.

(ii) Each annual certification of compliance required under Title V of the Clean Air Act (42 U.S.C.A. § § 7661-7661f) and regulations adopted under the act and the data relied on in certifying the compliance.

(b) The records required under 40 CFR 52.21(aa)(13) shall be retrievable onsite.

[40 CFR 52.21(aa)(13) & (aa)(7)(viii)]

[Compliance with this permit condition assures compliance with RACT OP 06-01002]

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

**# 004 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

This CO PAL is subject to the Federal PAL conditions in SG20, Generic Federal PAL Requirements.

**\*\*\* Permit Shield in Effect. \*\*\***



**SECTION E. Source Group Restrictions.**

Group Name: SG14 NOX PAL

Group Description: NOx PAL Requirements

Sources included in this group

ID	Name
109	RAW GRIND #1 & HEATER
110	RAW GRIND #2 & HEATER
112	RAW GRIND #3 & HEATER
121	PORTLAND CEMENT KILN #1
122	PORTLAND CEMENT KILN #2
176	FIRE PUMP (EMERGENCY)
177	RAW MATERIAL DRYER (SLAG)
200	RAW MATERIAL HANDLING
420	AUX KILN DRIVE
440	WASH HOUSE BOILER

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.218.]****PALs.**

(a) Except as provided in Condition #001 of Group ID SG21, Generic State PAL Conditions, in accordance with the plantwide applicability limit (PAL) provisions of 25 Pa. Code Section 127.218(g), the total combined nitrogen oxide (NOx) emissions, including fugitive emissions, from this facility shall not exceed 1,783.18 tons in any 12-consecutive month period. The effective period of this NOx PAL is 8/20/13 to 8/19/23.

(b) In accordance with the plantwide applicability limit (PAL) provisions of 25 Pa. Code Section 127.218(g), emission calculations for compliance with the NOx PAL shall include emissions from startups, shutdowns and malfunctions.

(c) In accordance with 25 Pa Code Section 127.218(g)(3), if the permittee applies to renew a PAL in accordance with 25 Pa Code Section 127.218(k) before the end of the PAL effective period, the PAL permit does not expire at the end of the PAL effective period. The PAL permit remains in effect until the Department issues a revised PAL permit.

(d) In accordance with 25 Pa Code Section 127.218(g)(5), upon expiration of the PAL permit, the permittee is subject to the requirements of subsection 25 Pa Code Section 127.218(j).

(e) In accordance with 25 Pa Code Section 127.218(g)(6), the permittee shall use the calculations procedures to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by 25 Pa Code Section 127.218(n)(1).

**II. TESTING REQUIREMENTS.****# 002 [25 Pa. Code §127.218.]****PALs.**

(a) In accordance with 25 Pa Code 127.218(m)(12), the permittee shall conduct performance testing at least once every 5 years after the issuance date of the PAL to revalidate the site-specific NOx emission factor(s), unless the Department determines, in writing, that testing is not required. Specifically, testing shall be conducted on the following sources:

- (1) Raw Grinds (Source IDs 109, 110, 112)

**III. MONITORING REQUIREMENTS.****# 003 [25 Pa. Code §127.218.]****PALs.**

(a) In accordance with 25 Pa Code 127.218(m), the permittee shall maintain a NOx emission tracking system to document compliance with the NOx PAL. The system shall, at a minimum, include the following monitoring approaches:

**SECTION E. Source Group Restrictions.**

- (1) Raw Grind Heaters (Ids 109, 110, 112)
    - (i) Operating hours
    - (ii) Fuel throughput
    - (iii) Emission factor determined by stack testing
  - (2) Cement Kilns (Ids 121, 122)
    - (i) Continuous Emission Monitoring System (CEMS) complying with applicable performance specifications found in 40 CFR Part 60, Appendix B (relating to performance specifications).
  - (3) Fire Pump (Id 176)
    - (i) Operating hours
    - (ii) Heat content of fuel
    - (iii) Fuel throughput
    - (iv) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database.
  - (4) Aux Kiln Drive (Id 420)
    - (i) Operating hours
    - (ii) Heat content of fuel
    - (iii) Fuel throughput
    - (iv) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database.
  - (5) Slag Dryer (Id 177)
    - (i) Operating hours
    - (ii) Slag throughput
    - (iii) Emission factor determined by 7/97 stack testing
  - (6) Miscellaneous Combustion Sources (Id 440)
    - (i) Operating hours
    - (ii) Fuel throughputs
    - (iii) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database.
- (b) Failure to use a monitoring system that meets the requirements of this section renders the PAL permit invalid.
- (c) Recording and reporting of emissions:
- (1) The following alternative method may be used by the permittee to record and report emissions for the purposes of PAL compliance for Sources 121 and 122 during periods of time when there is no monitoring data: the permittee may record and report CEMS data in accordance with Department-approved data substitution methodology.
  - (2) Unless an approved alternative method is used, the permittee shall record and report maximum potential emissions for the purposes of PAL compliance, without considering enforceable emissions limitations or operational restrictions, for an emissions unit during a period of time that there is no monitoring data.
- (d) Data used to establish the PAL must be revalidated through performance testing or other scientifically valid means approved in writing by the Department. This testing must occur at least once every 5 years after issuance of the PAL permit.

**IV. RECORDKEEPING REQUIREMENTS.****# 004 [25 Pa. Code §127.218.]****PALs.**

(a) The following PAL requirements apply to this facility:

(1) The permittee shall retain a copy of the records necessary to determine compliance with the PAL, including a determination of the 12-month rolling total emissions for each emissions unit, for 5 years. At a minimum, the following shall be maintained:

- (i) Raw Grind Heaters (Ids 109, 110, 112)
  - (A) Operating hours, daily

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- (B) Fuel usage, by type, daily
- (C) Actual emission rate determined by the most recent stack test

## (ii) Cement Kilns (Ids 121, 122)

(A) Continuous Emission Monitoring System (CEMS) data. Readings shall be taken and recorded at least every 15 minutes while the emissions unit is operating

## (iii) Fire Pump (Id 176)

- (A) Operating hours, daily
- (B) Fuel usage by type, daily
- (C) Heat content of fuels
- (D) Emission factor used & source of emission factor (testing, AP-42, etc)

## (iv) Aux Kiln Drive (Id 420)

- (A) Operating hours, daily
- (B) Fuel usage by type, daily
- (C) Heat content of fuels
- (D) Emission factor used & source of emission factor (testing, AP-42, etc)

## (v) Slag Dryer (Id 177)

- (A) Operating hours, daily
- (B) Slag throughput, daily
- (C) Actual emission rate determined by the most recent stack test

## (vi) Miscellaneous Combustion Sources (Id 440)

- (A) Operating hours, daily
- (B) Fuel usage by type, daily
- (C) Emission factor used & source of emission factor (testing, AP-42, etc)

(2) The permittee shall retain a copy of the following records for the duration of the PAL effective period and 5 years after the PAL permit expires:

(i) A copy of the PAL permit application and applications for revisions to the PAL permit.

(ii) Each annual certification of compliance required under Title V of the Clean Air Act (42 U.S.C.A. § 7661-7661f) and regulations adopted under the act and the data relied on in certifying the compliance.

(b) The records required under 25 Pa Code 127.218(n) shall be retrievable onsite.

[25 Pa Code 127.218(n) & (g)(8)]

[Compliance with this permit condition assures compliance with RACT OP 06-01002]

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

**# 005 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

This NOx PAL is subject to the State PAL conditions in SG21, Generic State PAL Requirements.

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: SG15 SOX PAL

Group Description: SOx PAL Requirements

Sources included in this group

ID	Name
109	RAW GRIND #1 & HEATER
110	RAW GRIND #2 & HEATER
112	RAW GRIND #3 & HEATER
121	PORTLAND CEMENT KILN #1
122	PORTLAND CEMENT KILN #2
176	FIRE PUMP (EMERGENCY)
177	RAW MATERIAL DRYER (SLAG)
200	RAW MATERIAL HANDLING
420	AUX KILN DRIVE
440	WASH HOUSE BOILER

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) Except as provided in Condition #001 of Group ID SG20, Generic Federal PAL Conditions, in accordance with the plantwide applicability limit (PAL) provisions of 40 CFR 52.21(aa)(7), the total combined sulfur oxide (expressed as SO<sub>2</sub>) emissions, including fugitive emissions, from this facility shall not exceed 329.49 tons in any 12-consecutive month period. The effective period of this SOx PAL is 8/20/13 to 8/19/23.

(b) In accordance with the plantwide applicability limit (PAL) provisions of 40 CFR 52.21(aa)(7), emission calculations for compliance with the SOx PAL shall include emissions from startups, shutdowns and malfunctions.

(c) In accordance with 40 CFR 52.21(aa)(7)(iii), if the permittee applies to renew a PAL in accordance with 40 CFR 52.21(aa)(10) before the end of the PAL effective period, the PAL permit does not expire at the end of the PAL effective period. The PAL permit remains in effect until the Department issues a revised PAL permit.

(d) In accordance with 40 CFR 52.21(aa)(7)(v), upon expiration of the PAL permit, the permittee is subject to the requirements of subsection 40 CFR 52.21(aa)(9).

(e) In accordance with 40 CFR 52.21(aa)(7)(vi), the permittee shall use the calculations procedures to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by 40 CFR 52.21(aa)(13)(i).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.****# 002 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) In accordance with 40 CFR 52.21(aa)(12), the permittee shall maintain a SOx emission tracking system to document compliance with the SOx PAL. The system shall, at a minimum, include the following information:

- (1) Raw Grind Heaters (Ids 109, 110, 112)
  - (i) Operating hours

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- (ii) Fuel throughput
- (iii) Sulfur content of fuels
- (iv) Emission factor determined by stack testing or US EPAs AP-42 5th Edition emission factor database

## (2) Cement Kilns (Ids 121, 122)

(i) Continuous Emission Monitoring System (CEMS) complying with applicable performance specifications found in 40 CFR Part 60, Appendix B (relating to performance specifications).

## (3) Fire Pump (Id 176)

- (i) Operating hours
- (ii) Heat content of fuels
- (iii) Fuel throughputs
- (iv) Sulfur content of fuels
- (v) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database.

## (4) Aux Kiln Drive (Id 420)

- (i) Operating hours
- (ii) Heat content of fuels
- (iii) Fuel throughputs
- (iv) Sulfur content of fuel
- (v) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database.

## (5) Slag Dryer (Id 177)

- (i) Operating hours
- (ii) Slag throughput
- (iii) Emission factor determined by 7/97 stack testing

## (6) Miscellaneous Combustion Sources (Id 440)

- (i) Operating hours
- (ii) Fuel throughputs
- (iii) Sulfur content of fuels
- (iv) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database.

(b) Failure to use a monitoring system that meets the requirements of this section renders the PAL permit invalid.

(c) Recording and reporting of emissions:

(1) The following alternative method may be used by the permittee to record and report emissions for the purposes of PAL compliance for Sources 121 and 122 during periods of time when there is no monitoring data: the permittee may record and report CEMS data in accordance with Department-approved data substitution methodology.

(2) Unless an approved alternative method is used, the permittee shall record and report maximum potential emissions for the purposes of PAL compliance, without considering enforceable emissions limitations or operational restrictions, for an emissions unit during a period of time that there is no monitoring data.

(d) Data used to establish the PAL must be revalidated through performance testing or other scientifically valid means approved in writing by the Department. This testing must occur at least once every 5 years after issuance of the PAL permit.

**IV. RECORDKEEPING REQUIREMENTS.****# 003 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) The following PAL requirements apply to this facility:

(1) The permittee shall retain a copy of the records necessary to determine compliance with the PAL, including a determination of the 12-month rolling total emissions for each emissions unit, for 5 years. At a minimum, the following shall be maintained:

**SECTION E. Source Group Restrictions.**

- (i) Raw Grind Heaters (Ids 109, 110, 112)
    - (A) Operating hours, daily
    - (B) Fuel usage by type, daily
    - (C) Sulfur content of fuels
    - (D) Emission factor used & source of emission factor (testing, AP-42, etc)
  
  - (ii) Cement Kilns (Ids 121, 122)
    - (A) Continuous Emission Monitoring System (CEMS) data. Readings shall be taken and recorded at least every 15 minutes while the emissions unit is operating
    - (B) Lime injection rate, daily [for RACT as opposed to PAL purposes]
  
  - (iii) Fire Pump (Id 176)
    - (A) Operating hours, daily
    - (B) Fuel usage by type, daily
    - (C) Heat content of fuels
    - (D) Sulfur content of fuels
    - (E) Emission factor used & source of emission factor (testing, AP-42, etc)
  
  - (iv) Aux Kiln Drive (Id 420)
    - (A) Operating hours, daily
    - (B) Fuel usage by type, daily
    - (C) Heat content of fuels
    - (D) Sulfur content of fuels
    - (E) Emission factor used & source of emission factor (testing, AP-42, etc)
  
  - (v) Slag Dryer (Id 177)
    - (A) Operating hours, daily
    - (B) Slag throughput, daily
    - (C) Actual emission rate determined by the most recent stack test
  
  - (vi) Miscellaneous Combustion Sources (Id 440)
    - (A) Operating hours, daily
    - (B) Fuel usage by type, daily
    - (C) Sulfur content of fuels
    - (D) Emission factor used & source of emission factor (testing, AP-42, etc)
- (2) The permittee shall retain a copy of the following records for the duration of the PAL effective period and 5 years after the PAL permit expires:
- (i) A copy of the PAL permit application and applications for revisions to the PAL permit.
  
  - (ii) Each annual certification of compliance required under Title V of the Clean Air Act (42 U.S.C.A. § 7661-7661f) and regulations adopted under the act and the data relied on in certifying the compliance.
- (b) The records required under 40 CFR 52.21(aa)(13) shall be retrievable onsite.
- [40 CFR 52.21(aa)(13) & (aa)(7)(viii)]  
[Compliance with this permit condition assures compliance with RACT OP 06-01002]

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**SECTION E. Source Group Restrictions.****VII. ADDITIONAL REQUIREMENTS.****# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

This SOx PAL is subject to the Federal PAL conditions in SG20, Generic Federal PAL Requirements.

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: SG16 VOC PAL

Group Description: VOC PAL Requirements

Sources included in this group

ID	Name
109	RAW GRIND #1 & HEATER
110	RAW GRIND #2 & HEATER
112	RAW GRIND #3 & HEATER
121	PORTLAND CEMENT KILN #1
122	PORTLAND CEMENT KILN #2
176	FIRE PUMP (EMERGENCY)
177	RAW MATERIAL DRYER (SLAG)
200	RAW MATERIAL HANDLING
420	AUX KILN DRIVE
440	WASH HOUSE BOILER
479	MISC COLD CLEANERS

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.218.]****PALs.**

(a) Except as provided in Condition #001 of Group ID SG21, Generic State PAL Conditions, in accordance with the plantwide applicability limit (PAL) provisions of 25 Pa. Code Section 127.218(g), the total combined volatile organic compound (VOC) emissions, including fugitive emissions, from this facility shall not exceed 51.41 tons in any 12-consecutive month period. The effective period of this VOC PAL is 8/20/13 to 8/19/23.

(b) In accordance with the plantwide applicability limit (PAL) provisions of 25 Pa. Code Section 127.218(g), emission calculations for compliance with the VOC PAL shall include emissions from startups, shutdowns and malfunctions.

(c) In accordance with 25 Pa Code Section 127.218(g)(3), if the permittee applies to renew a PAL in accordance with 25 Pa Code Section 127.218(k) before the end of the PAL effective period, the PAL permit does not expire at the end of the PAL effective period. The PAL permit remains in effect until the Department issues a revised PAL permit.

(d) In accordance with 25 Pa Code Section 127.218(g)(5), upon expiration of the PAL permit, the permittee is subject to the requirements of subsection 25 Pa Code Section 127.218(j).

(e) In accordance with 25 Pa Code Section 127.218(g)(6), the permittee shall use the calculations procedures to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by 25 Pa Code Section 127.218(n)(1).

**II. TESTING REQUIREMENTS.****# 002 [25 Pa. Code §127.218.]****PALs.**

(a) In accordance with 25 Pa Code 127.218(m)(12), the permittee shall conduct performance testing at least once every 5 years after the issuance date of the PAL to revalidate the site-specific VOC emission factor(s), unless the Department determines, in writing, that testing is not required. Specifically, testing shall be conducted on the following sources:

- (1) Cement Kilns (Source IDs 121, 122)

**III. MONITORING REQUIREMENTS.****# 003 [25 Pa. Code §127.218.]****PALs.**

(a) In accordance with 25 Pa Code 127.218(m), the permittee shall maintain a VOC emission tracking system to document compliance with the VOC PAL. The system shall, at a minimum, include the following monitoring approaches:



**SECTION E. Source Group Restrictions.**

- (1) Raw Grind Heaters (Ids 109, 110, 112)
    - (i) Operating hours
    - (ii) Heat content of fuels
    - (iii) Fuel throughputs
    - (iv) Emission factor determined by stack testing or US EPAs AP-42 5th Edition emission factor database
  - (2) Cement Kilns (Ids 121, 122)
    - (i) Clinker Production
    - (ii) A company-specific emission factor for each source (lb VOC/ton clinker) determined by stack testing.
  - (3) Fire Pump (Id 176)
    - (i) Operating hours
    - (ii) Heat content of fuels
    - (iii) Fuel throughputs
    - (iv) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database.
  - (4) Aux Kiln Drive (Id 420)
    - (i) Operating hours
    - (ii) Heat content of fuels
    - (iii) Fuel throughputs
    - (iv) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database.
  - (5) Slag Dryer (Id 177)
    - (i) Operating hours
    - (ii) Slag throughput
    - (iii) Emission factor determined by stack testing or an emission factor determined from PA Asphalt Paving Assoc. 7/14/95 (0.034 lb/ton slag)
  - (6) Miscellaneous Combustion Sources (Id 440)
    - (i) Operating hours
    - (ii) Fuel throughputs
    - (iii) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database.
  - (7) Miscellaneous Cold Cleaners (Id 479)
    - (i) Operating hours
    - (ii) An approved emission rate multiplied by the square footage of the cold cleaner opening
- (b) Failure to use a monitoring system that meets the requirements of this section renders the PAL permit invalid.
- (c) An owner or operator of a facility shall record and report maximum potential emissions without considering enforceable emissions limitations or operational restrictions for an emissions unit during a period of time that there is no monitoring data, unless another method for determining emissions during these periods is specified in the PAL permit.
- (d) Data used to establish the PAL must be revalidated through performance testing or other scientifically valid means approved in writing by the Department. This testing must occur at least once every 5 years after issuance of the PAL permit.

**IV. RECORDKEEPING REQUIREMENTS.****# 004 [25 Pa. Code §127.218.]****PALs.**

(a) The following PAL requirements apply to this facility:

(1) The permittee shall retain a copy of the records necessary to determine compliance with the PAL, including a determination of the 12-month rolling total emissions for each emissions unit, for 5 years. At a minimum, the following shall be maintained:

- (i) Raw Grind Heaters (Ids 109, 110, 112)
  - (A) Operating hours, daily

**SECTION E. Source Group Restrictions.**

- (B) Fuel usage, by type, daily
- (C) Heat content of fuels [for RACT as opposed to PAL purposes]
- (D) Emission factor used & source of emission factor (testing, AP-42, etc)

(ii) Cement Kilns (Ids 121, 122)

- (A) Clinker production, daily
- (B) Fuel usage, by type, daily
- (C) Heat content of fuels [for RACT as opposed to PAL purposes]
- (D) Actual emission rate determined by the most recent stack test.

(iii) Fire Pump (Id 176)

- (A) Operating hours, daily
- (B) Fuel usage by type, daily
- (C) Heat content of fuels
- (D) Emission factor used & source of emission factor (testing, AP-42, etc)

(iv) Aux Kiln Drive (Id 420)

- (A) Operating hours, daily
- (B) Fuel usage by type, daily
- (C) Heat content of fuels
- (D) Emission factor used & source of emission factor (testing, AP-42, etc)

(v) Slag Dryer (Id 177)

- (A) Operating hours, daily
- (B) Slag throughput, daily
- (C) Emission factor used & source of emission factor (testing, AP-42, etc)

(vi) Miscellaneous Combustion Sources (Id 440)

- (A) Operating hours, daily
- (B) Fuel usage by type, daily
- (C) Emission factor used & source of emission factor (testing, AP-42, etc)

(vii) Cold Cleaners (Id 479)

- (A) Operating hours, daily
- (B) Emission factor used & source of emission factor (testing, AP-42, etc)
- (C) Square footage of the cold cleaner opening

(2) The permittee shall retain a copy of the following records for the duration of the PAL effective period and 5 years after the PAL permit expires:

(i) A copy of the PAL permit application and applications for revisions to the PAL permit.

(ii) Each annual certification of compliance required under Title V of the Clean Air Act (42 U.S.C.A. § § 7661-7661f) and regulations adopted under the act and the data relied on in certifying the compliance.

(b) The records required under 25 Pa Code 127.218(n) shall be retrievable onsite.

[25 Pa Code 127.218(n) & (g)(8)]

[Compliance with this permit condition assures compliance with RACT OP 06-01002]

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**SECTION E. Source Group Restrictions.****VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

# 005 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

This VOC PAL is subject to the State PAL conditions in SG21, Generic State PAL Requirements.

\*\*\* **Permit Shield in Effect.** \*\*\*

**SECTION E. Source Group Restrictions.**

Group Name: SG17 HF PAL

Group Description: HF PAL Requirements

Sources included in this group

ID	Name
109	RAW GRIND #1 & HEATER
110	RAW GRIND #2 & HEATER
112	RAW GRIND #3 & HEATER
121	PORTLAND CEMENT KILN #1
122	PORTLAND CEMENT KILN #2

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) Except as provided in Condition #001 of Group ID SG20, Generic Federal PAL Conditions, in accordance with the plantwide applicability limit (PAL) provisions of 40 CFR 52.21(aa)(7), the total combined fluoride (expressed as HF) emissions, including fugitive emissions, from this facility shall not exceed 3.22 tons in any 12-consecutive month period. The effective period of this HF PAL is 8/20/13 to 8/19/23.

(b) In accordance with the plantwide applicability limit (PAL) provisions of 40 CFR 52.21(aa)(7), emission calculations for compliance with the HF PAL shall include emissions from startups, shutdowns and malfunctions.

(c) In accordance with 40 CFR 52.21(aa)(7)(iii), if the permittee applies to renew a PAL in accordance with 40 CFR 52.21(aa)(10) before the end of the PAL effective period, the PAL permit does not expire at the end of the PAL effective period. The PAL permit remains in effect until the Department issues a revised PAL permit.

(d) In accordance with 40 CFR 52.21(aa)(7)(v), upon expiration of the PAL permit, the permittee is subject to the requirements of subsection 40 CFR 52.21(aa)(9).

(e) In accordance with 40 CFR 52.21(aa)(7)(vi), the permittee shall use the calculations procedures to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by 40 CFR 52.21(aa)(13)(i).

**II. TESTING REQUIREMENTS.****# 002 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) In accordance with 40 CFR 52.21(aa)(12)(ix), the permittee shall conduct performance testing at least once every 5 years after the issuance date of the PAL to revalidate the site-specific HF emission factor(s), unless the Department determines, in writing, that testing is not required. Specifically, testing shall be conducted on the following sources:

- (1) Cement Kilns (Source IDs 121, 122)

**III. MONITORING REQUIREMENTS.****# 003 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) In accordance with 40 CFR 52.21(aa)(12), the permittee shall maintain a HF emission tracking system to document compliance with the HF PAL. The system shall, at a minimum, include the following information:

- (1) Raw Grind Heaters (Ids 109, 110, 112)
  - (i) Operating hours
  - (ii) Fuel throughputs

**SECTION E. Source Group Restrictions.**

- (iii) Emission factor determined by stack testing or US EPAs AP-42 5th Edition emission factor database.
- (2) Cement Kilns (Ids 121, 122)
  - (i) Clinker Production
  - (ii) A company-specific emission factor for each source (lb HF/ton clinker) determined by stack testing.
- (b) Failure to use a monitoring system that meets the requirements of this section renders the PAL permit invalid.
- (c) An owner or operator of a facility shall record and report maximum potential emissions without considering enforceable emissions limitations or operational restrictions for an emissions unit during a period of time that there is no monitoring data, unless another method for determining emissions during these periods is specified in the PAL permit.
- (d) Data used to establish the PAL must be revalidated through performance testing or other scientifically valid means approved in writing by the Department. This testing must occur at least once every 5 years after issuance of the PAL permit.

**IV. RECORDKEEPING REQUIREMENTS.****# 004 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) The following PAL requirements apply to this facility:

(1) The permittee shall retain a copy of the records necessary to determine compliance with the PAL, including a determination of the 12-month rolling total emissions for each emissions unit, for 5 years. At a minimum, the following shall be maintained:

- (i) Raw Grind Heaters (Ids 109, 110, 112)
  - (A) Operating hours, daily
  - (B) Fuel usage by type, daily
  - (C) Emission factor used & source of emission factor (testing, AP-42, etc)
- (ii) Cement Kilns (Ids 121, 122)
  - (A) Clinker production, daily
  - (B) Actual emission rate determined by the most recent stack test.

(2) The permittee shall retain a copy of the following records for the duration of the PAL effective period and 5 years after the PAL permit expires:

- (i) A copy of the PAL permit application and applications for revisions to the PAL permit.
- (ii) Each annual certification of compliance required under Title V of the Clean Air Act (42 U.S.C.A. § 7661-7661f) and regulations adopted under the act and the data relied on in certifying the compliance.

(b) The records required under 40 CFR 52.21(aa)(13) shall be retrievable onsite.

[40 CFR 52.21(aa)(13) & (aa)(7)(viii)]

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**SECTION E. Source Group Restrictions.****VII. ADDITIONAL REQUIREMENTS.****# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

This HF PAL is subject to the Federal PAL conditions in SG20, Generic Federal PAL Requirements.

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: SG18 H2SO4 PAL

Group Description: H2SO4 PAL Requirements

Sources included in this group

ID	Name
121	PORTLAND CEMENT KILN #1
122	PORTLAND CEMENT KILN #2

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) Except as provided in Condition #001 of Group ID SG20, Generic Federal PAL Conditions, in accordance with the plantwide applicability limit (PAL) provisions of 40 CFR 52.21(aa)(7), the total combined sulfuric acid (H2SO4) emissions, including fugitive emissions, from this facility shall not exceed 12.70 tons in any 12-consecutive month period. The effective period of this H2SO4 PAL is 8/20/13 to 8/19/23.

(b) In accordance with the plantwide applicability limit (PAL) provisions of 40 CFR 52.21(aa)(7), emission calculations for compliance with the H2SO4 PAL shall include emissions from startups, shutdowns and malfunctions.

(c) In accordance with 40 CFR 52.21(aa)(7)(iii), if the permittee applies to renew a PAL in accordance with 40 CFR 52.21(aa)(10) before the end of the PAL effective period, the PAL permit does not expire at the end of the PAL effective period. The PAL permit remains in effect until the Department issues a revised PAL permit.

(d) In accordance with 40 CFR 52.21(aa)(7)(v), upon expiration of the PAL permit, the permittee is subject to the requirements of subsection 40 CFR 52.21(aa)(9).

(e) In accordance with 40 CFR 52.21(aa)(7)(vi), the permittee shall use the calculations procedures to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by 40 CFR 52.21(aa)(13)(i).

**II. TESTING REQUIREMENTS.****# 002 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) In accordance with 40 CFR 52.21(aa)(12)(ix), the permittee shall conduct performance testing at least once every 5 years after the issuance date of the PAL to revalidate the site-specific H2SO4 emission factor(s), unless the Department determines, in writing, that testing is not required. Specifically, testing shall be conducted on the following sources:

- (1) Cement Kilns (Source IDs 121, 122)

**III. MONITORING REQUIREMENTS.****# 003 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) In accordance with 40 CFR 52.21(aa)(12), the permittee shall maintain a H2SO4 emission tracking system to document compliance with the H2SO4 PAL. The system shall, at a minimum, include the following information:

- (1) Cement Kilns (Ids 121, 122)
  - (i) Clinker Production
  - (ii) A company-specific emission factor for each source (lb H2SO4/ton clinker) determined by stack testing

(b) Failure to use a monitoring system that meets the requirements of this section renders the PAL permit invalid.

(c) An owner or operator of a facility shall record and report maximum potential emissions without considering enforceable

**SECTION E. Source Group Restrictions.**

emissions limitations or operational restrictions for an emissions unit during a period of time that there is no monitoring data, unless another method for determining emissions during these periods is specified in the PAL permit.

(d) Data used to establish the PAL must be revalidated through performance testing or other scientifically valid means approved in writing by the Department. This testing must occur at least once every 5 years after issuance of the PAL permit.

**IV. RECORDKEEPING REQUIREMENTS.****# 004 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) The following PAL requirements apply to this facility:

(1) The permittee shall retain a copy of the records necessary to determine compliance with the PAL, including a determination of the 12-month rolling total emissions for each emissions unit, for 5 years. At a minimum, the following shall be maintained:

(i) Cement Kilns (Ids 121, 122)

(A) Clinker production, daily

(B) Actual emission rate determined from the most recent stack test.

(2) The permittee shall retain a copy of the following records for the duration of the PAL effective period and 5 years after the PAL permit expires:

(i) A copy of the PAL permit application and applications for revisions to the PAL permit.

(ii) Each annual certification of compliance required under Title V of the Clean Air Act (42 U.S.C.A. § § 7661-7661f) and regulations adopted under the act and the data relied on in certifying the compliance.

(b) The records required under 40 CFR 52.21(aa)(13) shall be retrievable onsite.

[40 CFR 52.21(aa)(13) & (aa)(7)(viii)]

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.****# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

This H2SO4 PAL is subject to the Federal PAL conditions in SG20, Generic Federal PAL Requirements.

**\*\*\* Permit Shield in Effect. \*\*\***



**SECTION E. Source Group Restrictions.**

Group Name: SG19 LEAD PAL

Group Description: Pb PAL Requirements

Sources included in this group

ID	Name
109	RAW GRIND #1 & HEATER
110	RAW GRIND #2 & HEATER
112	RAW GRIND #3 & HEATER
121	PORTLAND CEMENT KILN #1
122	PORTLAND CEMENT KILN #2
159	FINISH GRIND #1 MILL
160	FINISH GRIND #3 MILL
162	FINISH GRIND #2 MILL
176	FIRE PUMP (EMERGENCY)
200	RAW MATERIAL HANDLING
420	AUX KILN DRIVE
440	WASH HOUSE BOILER

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) Except as provided in Condition #001 of Group ID SG20, Generic Federal PAL Conditions, in accordance with the plantwide applicability limit (PAL) provisions of 40 CFR 52.21(aa)(7), the total combined lead (Pb) emissions, including fugitive emissions, from this facility shall not exceed 0.60 tons in any 12-consecutive month period. The effective period of this Pb PAL is 8/20/13 to 8/19/23.

(b) In accordance with the plantwide applicability limit (PAL) provisions of 40 CFR 52.21(aa)(7), emission calculations for compliance with the Pb PAL shall include emissions from startups, shutdowns and malfunctions.

(c) In accordance with 40 CFR 52.21(aa)(7)(iii), if the permittee applies to renew a PAL in accordance with 40 CFR 52.21(aa)(10) before the end of the PAL effective period, the PAL permit does not expire at the end of the PAL effective period. The PAL permit remains in effect until the Department issues a revised PAL permit.

(d) In accordance with 40 CFR 52.21(aa)(7)(v), upon expiration of the PAL permit, the permittee is subject to the requirements of subsection 40 CFR 52.21(aa)(9).

(e) In accordance with 40 CFR 52.21(aa)(7)(vi), the permittee shall use the calculations procedures to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by 40 CFR 52.21(aa)(13)(i).

**II. TESTING REQUIREMENTS.****# 002 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) In accordance with 40 CFR 52.21(aa)(12)(ix), the permittee shall conduct performance testing at least once every 5 years after the issuance date of the PAL to revalidate the site-specific Pb emission factor(s), unless the Department determines, in writing, that testing is not required. Specifically, testing shall be conducted on the following sources:

- (1) Cement Kilns (Source IDs 121, 122)

**SECTION E. Source Group Restrictions.****III. MONITORING REQUIREMENTS.****# 003 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) In accordance with 40 CFR 52.21(aa)(12), the permittee shall maintain a Pb emission tracking system to document compliance with the Pb PAL. The system shall, at a minimum, include the following information:

- (1) Raw Grind Heaters (Ids 109, 110, 112)
  - (i) Operating hours
  - (ii) Fuel throughputs
  - (iii) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database.
- (2) Cement Kilns (Ids 121, 122)
  - (i) Clinker Production
  - (ii) A company-specific emission factor for each source (lb Pb/ton clinker) determined by stack testing
- (3) Finish Mills (Ids 159, 160, 162)
  - (i) Operating hours
  - (ii) Fuel throughputs
  - (iii) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database.
- (4) Fire Pump (Id 176)
  - (i) Operating hours
  - (ii) Heat content of fuels
  - (iii) Fuel throughputs
  - (iv) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database.
- (5) Aux Kiln Drive (Id 420)
  - (i) Operating hours
  - (ii) Heat content of fuels
  - (iii) Fuel throughputs
  - (iv) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database.
- (6) Miscellaneous Combustion Sources (Id 440)
  - (i) Operating hours
  - (ii) Fuel throughputs
  - (iii) An approved emission factor obtained from US EPAs AP-42 5th Edition emission factor database.

(b) Failure to use a monitoring system that meets the requirements of this section renders the PAL permit invalid.

(c) An owner or operator of a facility shall record and report maximum potential emissions without considering enforceable emissions limitations or operational restrictions for an emissions unit during a period of time that there is no monitoring data, unless another method for determining emissions during these periods is specified in the PAL permit.

(d) Data used to establish the PAL must be revalidated through performance testing or other scientifically valid means approved in writing by the Department. This testing must occur at least once every 5 years after issuance of the PAL permit.

**IV. RECORDKEEPING REQUIREMENTS.****# 004 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) The following PAL requirements apply to this facility:

(1) The permittee shall retain a copy of the records necessary to determine compliance with the PAL, including a determination of the 12-month rolling total emissions for each emissions unit, for 5 years. At a minimum, the following shall be maintained:

**SECTION E. Source Group Restrictions.**

- (i) Raw Grind Heaters (Ids 109, 110, 112)
  - (A) Operating hours, daily
  - (B) Fuel usage by type, daily
  - (C) Emission factor used & source of emission factor (testing, AP-42, etc)
- (ii) Cement Kilns (Ids 121, 122)
  - (A) Clinker production, daily
  - (B) Actual emission rate determined by the most recent stack test.
- (iii) Finish Mills (Ids 159, 160, 162)
  - (A) Operating hours, daily
  - (B) Fuel usage by type, daily
  - (C) Emission factor used & source of emission factor (testing, AP-42, etc)
- (iv) Fire Pump (Id 176)
  - (A) Operating hours, daily
  - (B) Fuel usage by type, daily
  - (C) Heat content of fuels
  - (D) Emission factor used & source of emission factor (testing, AP-42, etc)
- (v) Aux Kiln Drive (Id 420)
  - (A) Operating hours, daily
  - (B) Fuel usage by type, daily
  - (C) Heat content of fuels
  - (D) Emission factor used & source of emission factor (testing, AP-42, etc)
- (vi) Miscellaneous Combustion Sources (Id 440)
  - (A) Operating hours, daily
  - (B) Fuel usage by type, daily
  - (C) Emission factor used & source of emission factor (testing, AP-42, etc)

(2) The permittee shall retain a copy of the following records for the duration of the PAL effective period and 5 years after the PAL permit expires:

(i) A copy of the PAL permit application and applications for revisions to the PAL permit.

(ii) Each annual certification of compliance required under Title V of the Clean Air Act (42 U.S.C.A. § § 7661-7661f) and regulations adopted under the act and the data relied on in certifying the compliance.

(b) The records required under 40 CFR 52.21(aa)(13) shall be retrievable onsite.

[40 CFR 52.21(aa)(13) & (aa)(7)(viii)]

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

**# 005 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

This Pb PAL is subject to the Federal PAL conditions in SG20, Generic Federal PAL Requirements.



**SECTION E. Source Group Restrictions.**

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: SG20 FED PAL REQ

Group Description: Generic Federal PAL Requirements

Sources included in this group

ID	Name
109	RAW GRIND #1 & HEATER
110	RAW GRIND #2 & HEATER
112	RAW GRIND #3 & HEATER
121	PORTLAND CEMENT KILN #1
122	PORTLAND CEMENT KILN #2
125	CLINKER COOLER #1
126	CLINKER COOLER #2
159	FINISH GRIND #1 MILL
160	FINISH GRIND #3 MILL
162	FINISH GRIND #2 MILL
176	FIRE PUMP (EMERGENCY)
177	RAW MATERIAL DRYER (SLAG)
179	PLANT ROADWAYS
180	RAW MATERIAL (SLAG/GYPSUM) TRANSFER
181	SYNTHETIC GYPSUM SYSTEM
182	COAL HANDLING SYSTEM
200	RAW MATERIAL HANDLING
210	KILN FEED
220	CLINKER HANDLING & STORAGE
230	CEMENT STORAGE
240	BULK LOADING
250	CEMENT PACKAGING PLANT
308	KILN LIME BIN #1
420	AUX KILN DRIVE
440	WASH HOUSE BOILER

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) In accordance with the PAL provisions of 40 CFR 52.21(aa)(6)(i), all Federal PALs referenced in this permit shall be revised to reflect new applicable requirements that become effective during the term of this permit, in the following manner:

(1) The PALs for the total combined emissions of each pollutant, including fugitive emissions, from this facility shall be revised to reflect compliance with the applicable provisions of 40 CFR 63, Subpart LLL. Such adjustments shall only apply to PALs for pollutants which have a new or revised emission standard in Subpart LLL, that takes effect after the effective date of this permit. The effective date for PALs so adjusted is the compliance date of the relevant standard in 40 CFR 63, Subpart LLL, and compliance with any adjusted PAL levels shall be required twelve (12) months following this date.

(2) Six months prior to the compliance date of 40 CFR 60 Subpart DDDD, the facility shall determine whether any existing kilns at the facility will combust non-hazardous solid waste and be subject to 40 CFR 60 Subpart DDDD - Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units. A signed determination of applicability or non-applicability shall be provided to PADEP.

(i) If the facility determines that the kilns at the facility will not combust non-hazardous solid waste, the PALs in this permit

**SECTION E. Source Group Restrictions.**

will not be adjusted on account of Subpart DDDD.

(ii) If the facility determines that the kilns at the facility will combust non-hazardous solid waste, then the PALs for the total combined emissions of each pollutant, including fugitive emissions, from this facility presented, shall be revised to reflect compliance with the applicable provisions of in 40 CFR 60 Subpart DDDD. Such adjustments shall only apply to PALs for pollutants which have a new or revised emission standard in Subpart DDDD, that takes effect after the effective date of this permit. The effective date for the PALs thus adjusted is the compliance date of the relevant standard in 40 CFR 60 Subpart DDDD and compliance with any adjusted PAL levels shall be required twelve (12) months following this date.

(3) The PALs for the total combined emissions of each pollutant, including fugitive emissions, from this facility shall be revised to reflect newly applicable State and/or Federal requirements (other than Subparts LLL or DDDD). Such adjustments shall only apply to PALs for pollutants which have a more stringent new or revised State or Federal emission standard that takes effect after the effective date of this permit. The effective date for any PALs thus revised is the compliance date of the relevant regulation, and compliance with the adjusted PAL level will be required twelve (12) months following this date.

(b) All revised PAL levels shall be adjusted in accordance with the approved replicable methodology (ARM) specified in Section H – Miscellaneous #20.

(c) All initial or adjusted PALs in this permit will expire 10 years from the issue date of this plan approval.

(d) Any PAL adjustments to PALs shall be proposed in writing by Lehigh to DEP prior to the compliance date in the relevant regulation causing the need for adjustment. Proposed PAL adjustments shall not be deemed final unless approved in writing by DEP.

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.****# 002 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) The permittee shall submit semi-annual monitoring reports and prompt deviation reports to the Administrator in accordance with the applicable Title V operating permit program. The reports shall meet the requirements of 40 CFR 52.21(aa)(14)(i) through (iii).

(1) The semi-annual report shall be submitted to the Administrator within 30 days of the end of each reporting period (Jan-June & July-Dec). This report shall contain the following information as required by 40 CFR 52.21(aa)(14)(i)(a) through (g):

(i) The identification of owner and operator and the permit number.

(ii) Total annual emissions (tons/year) based on a 12-month rolling total for each month in the reporting period recorded pursuant to paragraph 40 CFR 52.21(aa)(13)(i).

(iii) All data relied upon, including, but not limited to, any Quality Assurance or Quality Control data, in calculating the

**SECTION E. Source Group Restrictions.**

monthly and annual PAL pollutant emissions.

(iv) A list of any emissions units modified or added to the major stationary source during the preceding 6-month period.

(v) The number, duration, and cause of any deviations or monitoring malfunctions (other than the time associated with zero and span calibration checks), and any corrective action taken.

(vi) A notification of a shutdown of any monitoring system, whether the shutdown was permanent or temporary, the reason for the shutdown, the anticipated date that the monitoring system will be fully operational or replaced with another monitoring system, and whether the emissions unit monitored by the monitoring system continued to operate, and the calculation of the emissions of the pollutant or the number determined by method included in the permit, as provided by 40 CFR 52.21(aa)(12)(vii).

(vii) A signed statement by the responsible official (as defined by the applicable Title V operating permit program) certifying the truth, accuracy, and completeness of the information provided in the report.

(2) The permittee shall promptly submit reports of any deviations or exceedance of the PAL requirements, including periods where no monitoring is available. A report submitted pursuant to 40 CFR 70.6(a)(3)(iii)(B) shall satisfy this reporting requirement. The deviation reports shall be submitted within the time limits prescribed by the applicable program implementing 40 CFR 70.6(a)(3)(iii)(B). The reports shall contain the following information:

(i) The identification of owner and operator and the permit number;

(ii) The PAL requirement that experienced the deviation or that was exceeded;

(iii) Emissions resulting from the deviation or the exceedance; and

(iv) A signed statement by the responsible official (as defined by the applicable title V operating permit program) certifying the truth, accuracy, and completeness of the information provided in the report.

(3) The owner or operator shall submit to the Administrator the results of any re-validation test or method within 3 months after completion of such test or method.

[40 CFR 52.21(aa)(14)]

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.****# 003 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(8)(ii)(a) During the PAL effective period, the Administrator must reopen the PAL permit to:

(1) Correct typographical/calculation errors made in setting the PAL or reflect a more accurate determination of emissions used to establish the PAL;

(2) Reduce the PAL if the owner or operator of the major stationary source creates creditable emissions reductions for use as offsets under 40 CFR 51.165(a)(3)(ii); and

(3) Revise the PAL to reflect an increase in the PAL as provided under paragraph 40 CFR 52.21(aa)(11).

(b) The Administrator shall have discretion to reopen the PAL permit for the following:

(1) Reduce the PAL to reflect newly applicable Federal requirements (for example, NSPS) with compliance dates after the

**SECTION E. Source Group Restrictions.**

PAL effective date;

(2) Reduce the PAL consistent with any other requirement, that is enforceable as a practical matter, and that the State may impose on the major stationary source under the State Implementation Plan; and

(3) Reduce the PAL if the reviewing authority determines that a reduction is necessary to avoid causing or contributing to a NAAQS or PSD increment violation, or to an adverse impact on an air quality related value that has been identified for a Federal Class I area by a Federal Land Manager and for which information is available to the general public.

(c) Except for the permit reopening under 40 CFR 52.21(aa)(8)(ii)(a)(1) for the correction of typographical/calculation errors that do not increase the PAL level, all other reopenings shall be carried out in accordance with the public participation requirements of 40 CFR 52.21(aa)(5).

(9) Any PAL that is not renewed in accordance with the procedures under 40 CFR 52.21(aa)(10) shall expire at the end of the PAL effective period, and the requirements under 40 CFR 52.21(aa)(9)(i) through (v) shall apply.

(i) Each emissions unit (or each group of emissions units) that existed under the PAL shall comply with an allowable emission limitation under a revised permit established according to the procedures under 40 CFR 52.21(aa)(9)(i)(a) and (b).

(a) Within the time frame specified for PAL renewals under 40 CFR 52.21(aa)(10)(ii), the major stationary source shall submit a proposed allowable emission limitation for each emissions unit (or each group of emissions units, if such a distribution is more appropriate as decided by the Administrator) by distributing the PAL allowable emissions for the major stationary source among each of the emissions units that existed under the PAL. If the PAL had not yet been adjusted for an applicable requirement that became effective during the PAL effective period, as required under 40 CFR 52.21(aa)(10)(v), such distribution shall be made as if the PAL had been adjusted.

(b) The Administrator shall decide whether and how the PAL allowable emissions will be distributed and issue a revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as the Administrator determines is appropriate.

(ii) Each emissions unit(s) shall comply with the allowable emission limitation on a 12-month rolling basis. The Administrator may approve the use of monitoring systems (source testing, emission factors, etc.) other than CEMS, CERMS, PEMS, or CPMS to demonstrate compliance with the allowable emission limitation.

(iii) Until the Administrator issues the revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as required under 40 CFR 52.21(aa)(9)(i)(b) of this section, the source shall continue to comply with a source-wide, multi-unit emissions cap equivalent to the level of the PAL emission limitation.

(iv) Any physical change or change in the method of operation at the major stationary source will be subject to major NSR requirements if such change meets the definition of major modification under 40 CFR 52.21(b)(2).

(v) The major stationary source owner or operator shall continue to comply with any State or Federal applicable requirements (BACT, RACT, NSPS, etc.) that may have applied either during the PAL effective period or prior to the PAL effective period except for those emission limitations that had been established pursuant to paragraph (r)(4) of this section, but were eliminated by the PAL in accordance with the provisions under 40 CFR 52.21(aa)(1)(ii)(c).

(10) Renewal of a PAL.

(i) The Administrator shall follow the procedures specified under 40 CFR 52.21(aa)(5) in approving any request to renew a PAL for a major stationary source, and shall provide both the proposed PAL level and a written rationale for the proposed PAL level to the public for review and comment. During such public review, any person may propose a PAL level for the source for consideration by the Administrator.

(ii) A major stationary source owner or operator shall submit a timely application to the Administrator to request renewal of a PAL. A timely application is one that is submitted at least 6 months prior to, but not earlier than 18 months from, the date of permit expiration. This deadline for application submittal is to ensure that the permit will not expire before the permit



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is renewed. If the owner or operator of a major stationary source submits a complete application to renew the PAL within this time period, then the PAL shall continue to be effective until the revised permit with the renewed PAL is issued.

(iii) The application to renew a PAL permit shall contain the following information as required by 40 CFR 52.21(aa)(10)(iii)(a) through (d).

(a) The information required under 40 CFR 52.21(aa)(3)(i) through (iii).

(b) A proposed PAL level.

(c) The sum of the potential to emit of all emissions units under the PAL (with supporting documentation).

(d) Any other information the owner or operator wishes the Administrator to consider in determining the appropriate level for renewing the PAL.

(iv) In determining whether and how to adjust the PAL, the Administrator shall consider the options outlined under 40 CFR 52.21(aa)(10)(iv)(a) and (b). However, in no case may any such adjustment fail to comply with 40 CFR 52.21(aa)(10)(iv)(c).

(a) If the emissions level calculated in accordance with 40 CFR 52.21(aa)(6) is equal to or greater than 80 percent of the PAL level, the Administrator may renew the PAL at the same level without considering the factors set forth under 40 CFR 52.21(aa)(10)(iv)(b); or

(b) The Administrator may set the PAL at a level that he or she determines to be more representative of the source's baseline actual emissions, or that he or she determines to be more appropriate considering air quality needs, advances in control technology, anticipated economic growth in the area, desire to reward or encourage the source's voluntary emissions reductions, or other factors as specifically identified by the Administrator in his or her written rationale.

(c) Notwithstanding 40 CFR 52.21(aa)(10)(iv)(a) and (b):

(1) If the potential to emit of the major stationary source is less than the PAL, the Administrator shall adjust the PAL to a level no greater than the potential to emit of the source; and

(2) The Administrator shall not approve a renewed PAL level higher than the current PAL, unless the major stationary source has complied with the provisions of 40 CFR 52.21(aa)(11) (increasing a PAL).

(11) Increasing a PAL during the PAL effective period.

(i) The Administrator may increase a PAL emission limitation only if the major stationary source complies with the provisions under 40 CFR 52.21(aa)(11)(i)(a) through (d).

(a) The owner or operator of the major stationary source shall submit a complete application to request an increase in the PAL limit for a PAL major modification. Such application shall identify the emissions unit(s) contributing to the increase in emissions so as to cause the major stationary source's emissions to equal or exceed its PAL.

(b) As part of this application, the major stationary source owner or operator shall demonstrate that the sum of the baseline actual emissions of the small emissions units, plus the sum of the baseline actual emissions of the significant and major emissions units assuming application of BACT equivalent controls, plus the sum of the allowable emissions of the new or modified emissions unit(s) exceeds the PAL. The level of control that would result from BACT equivalent controls on each significant or major emissions unit shall be determined by conducting a new BACT analysis at the time the application is submitted, unless the emissions unit is currently required to comply with a BACT or LAER requirement that was established within the preceding 10 years. In such a case, the assumed control level for that emissions unit shall be equal to the level of BACT or LAER with which that emissions unit must currently comply.

(c) The owner or operator obtains a major NSR permit for all emissions unit(s) identified in 40 CFR 52.21(aa)(11)(i)(a), regardless of the magnitude of the emissions increase resulting from them (that is, no significant levels apply). These emissions unit(s) shall comply with any emissions requirements resulting from the major NSR process (for example, BACT), even though they have also become subject to the PAL or continue to be subject to the PAL.

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(d) The PAL permit shall require that the increased PAL level shall be effective on the day any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.

(ii) The Administrator shall calculate the new PAL as the sum of the allowable emissions for each modified or new emissions unit, plus the sum of the baseline actual emissions of the significant and major emissions units (assuming application of BACT equivalent controls as determined in accordance with 40 CFR 52.21(aa)(11)(i)(b)), plus the sum of the baseline actual emissions of the small emissions units.

(iii) The PAL permit shall be revised to reflect the increased PAL level pursuant to the public notice requirements of 40 CFR 52.21(aa)(5).

[40 CFR 52.21(aa)(8)(ii) thru (aa)(11)(iii)]

**# 004 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

At no time (during or after the PAL effective period) are emissions reductions of a PAL pollutant that occur during the PAL effective period creditable as decreases for purposes of offsets under 40 CFR 51.165(a)(3)(ii) unless the level of the PAL is reduced by the amount of such emissions reductions and such reductions would be creditable in the absence of the PAL.

[40 CFR 52.21(aa)(4)(ii)]

**# 005 [40 CFR Part 52 Approval And Promulgation of Implementation Plans §40 CFR 52.21 (aa)]****Subpart A--General Provisions****Actual PALs**

(a) Any physical change in or change in the method of operation of a major stationary source that maintains its total source-wide emissions below the PAL level, meets the requirements in paragraphs (aa)(1) through (15) of this section, and complies with the PAL permit:

(1) Is not a major modification for the PAL pollutant;

(2) Does not have to be approved through the PSD program; and

(3) Is not subject to the provisions in paragraph 40 CFR 52.21(r)(4) (restrictions on relaxing enforceable emission limitations that the major stationary source used to avoid applicability of the major NSR program).

[40 CFR 52.21(aa)(1)(ii)]

\*\*\* **Permit Shield in Effect.** \*\*\*

**SECTION E. Source Group Restrictions.**

Group Name: SG21 STATE PAL REQ

Group Description: Generic State PAL Requirements

Sources included in this group

ID	Name
109	RAW GRIND #1 & HEATER
110	RAW GRIND #2 & HEATER
112	RAW GRIND #3 & HEATER
121	PORTLAND CEMENT KILN #1
122	PORTLAND CEMENT KILN #2
125	CLINKER COOLER #1
126	CLINKER COOLER #2
159	FINISH GRIND #1 MILL
160	FINISH GRIND #3 MILL
162	FINISH GRIND #2 MILL
176	FIRE PUMP (EMERGENCY)
177	RAW MATERIAL DRYER (SLAG)
179	PLANT ROADWAYS
180	RAW MATERIAL (SLAG/GYPSUM) TRANSFER
181	SYNTHETIC GYPSUM SYSTEM
182	COAL HANDLING SYSTEM
200	RAW MATERIAL HANDLING
210	KILN FEED
220	CLINKER HANDLING & STORAGE
230	CEMENT STORAGE
240	BULK LOADING
250	CEMENT PACKAGING PLANT
308	KILN LIME BIN #1
420	AUX KILN DRIVE
440	WASH HOUSE BOILER
479	MISC COLD CLEANERS

**I. RESTRICTIONS.****Emission Restriction(s).**

# 001 [25 Pa. Code §127.218.]

**PALs.**

(a) In accordance with the PAL provisions of 25 Pa Code 127.218(i)(2)(i), all State PALs referenced in this permit shall be revised to reflect new applicable requirements that become effective during the term of this permit, in the following manner:

(1) The PALs for the total combined emissions of each pollutant, including fugitive emissions, from this facility shall be revised to reflect compliance with the applicable provisions of 40 CFR 63, Subpart LLL. Such adjustments shall only apply to PALs for pollutants which have a new or revised emission standard in Subpart LLL, that takes effect after the effective date of this permit. The effective date for PALs so adjusted is the compliance date of the relevant standard in 40 CFR 63, Subpart LLL, and compliance with any adjusted PAL levels shall be required twelve (12) months following this date.

(2) Six months prior to the compliance date of 40 CFR 60 Subpart DDDD, the facility shall determine whether any existing kilns at the facility will combust non-hazardous solid waste and be subject to 40 CFR 60 Subpart DDDD - Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units. A signed determination of applicability or non-applicability shall be provided to PADEP.

(i) If the facility determines that the kilns at the facility will not combust non-hazardous solid waste, the PALs in this permit

**SECTION E. Source Group Restrictions.**

will not be adjusted on account of Subpart DDDD.

(ii) If the facility determines that the kilns at the facility will combust non-hazardous solid waste, then the PALs for the total combined emissions of each pollutant, including fugitive emissions, from this facility presented, shall be revised to reflect compliance with the applicable provisions of in 40 CFR 60 Subpart DDDD. Such adjustments shall only apply to PALs for pollutants which have a new or revised emission standard in Subpart DDDD, that takes effect after the effective date of this permit. The effective date for the PALs thus adjusted is the compliance date of the relevant standard in 40 CFR 60 Subpart DDDD and compliance with any adjusted PAL levels shall be required twelve (12) months following this date.

(3) The PALs for the total combined emissions of each pollutant, including fugitive emissions, from this facility shall be revised to reflect newly applicable State and/or Federal requirements (other than Subparts LLL or DDDD). Such adjustments shall only apply to PALs for pollutants which have a more stringent new or revised State or Federal emission standard that takes effect after the effective date of this permit. The effective date for any PALs thus revised is the compliance date of the relevant regulation, and compliance with the adjusted PAL level will be required twelve (12) months following this date.

(b) All revised PAL levels shall be adjusted in accordance with the approved replicable methodology (ARM) specified in Section H – Miscellaneous #20.

(c) All initial or adjusted PALs in this permit will expire 10 years from the issue date of this plan approval.

(d) Any PAL adjustments to PALs shall be proposed in writing by Lehigh to DEP prior to the compliance date in the relevant regulation causing the need for adjustment. Proposed PAL adjustments shall not be deemed final unless approved in writing by DEP.

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

**# 002 [25 Pa. Code §127.218.]**

**PALs.**

(a) The following PAL requirements apply to this facility:

(1) The permittee shall submit semiannual monitoring reports and prompt deviation reports to the Department in accordance with the Title V operating permit requirements of Subchapters F and G (relating to operating permit requirements; and Title V operating permits).

(2) The semiannual reports must:

(i) Be submitted to the Department within 30 days of the end of each reporting period (Jan-June & July-Dec).

(ii) Contain the following information:

(A) The identification of the owner and operator and the permit number.

**SECTION E. Source Group Restrictions.**

(B) Total annual emissions in TPY based on a 12-month rolling total for each month in the reporting period recorded in compliance with 25 Pa Code 127.218(n)(1).

(C) Data relied upon, including the quality assurance or quality control data, in calculating the monthly and annual PAL pollutant emissions.

(D) A list of the emissions units modified or added to the major facility during the preceding 6-month period.

(E) The number, duration and cause of deviations or monitoring malfunctions, other than the time associated with zero and span calibration checks, and the corrective action taken.

(F) A notification of a shutdown of a monitoring system, whether the shutdown was permanent or temporary, the reason for the shutdown, the anticipated date that the monitoring system will be fully operational or replaced with another monitoring system, whether the emissions unit monitored by the monitoring system continued to operate, and the calculation of the emissions of the pollutant or the number determined by the method included in the permit under 25 Pa Code 127.218(m)(10).

(G) A statement signed by a responsible official of the company that owns or operates the facility certifying the truth, accuracy and completeness of the information provided in the report.

(3) The reports of deviations and exceedances of the PAL requirements, including periods in which no monitoring is available, must:

(i) Be submitted to the Department promptly. A report submitted under Subchapter G satisfies this reporting requirement.

(ii) Contain the following information:

(A) The identification of the owner and operator and the permit number.

(B) The PAL requirement that experienced the deviation or that was exceeded.

(C) Emissions resulting from the deviation or the exceedance.

(D) A statement signed by a responsible official of the company that owns or operates the facility certifying the truth, accuracy and completeness of the information provided in the report.

(4) The permittee shall submit to the Department the results of any revalidation test or method within 3 months after completion of the test or method.

[25 Pa Code 127.218(o)]

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

**# 003 [25 Pa. Code §127.218.]**

**PALs.**

(a) The following requirements apply to reopening of the PAL permit:

(1) During the PAL effective period, the Department will reopen the PAL permit to:

(i) Correct typographical/calculation errors made in setting the PAL or reflect a more accurate determination of emissions used to establish the PAL.

**SECTION E. Source Group Restrictions.**

(ii) Reduce the PAL if the owner or operator of the major facility creates creditable emissions reductions for use as offsets under § 127.207 (relating to creditable emissions decrease or ERC generation or creation).

(iii) Revise the PAL to reflect an increase in the PAL as provided under 25 Pa Code 127.218(l).

(2) The Department may reopen the PAL permit to reduce the PAL:

(i) To reflect newly applicable Federal requirements with compliance dates after the PAL effective date.

(ii) Consistent with a requirement that is enforceable as a practical matter and that the Department may impose on the major facility consistent with all applicable requirements.

(iii) If the Department determines that a reduction is necessary to avoid causing or contributing to:

(A) A NAAQS or PSD increment violation.

(B) An adverse impact on an air quality related value that has been identified for a Federal Class I area by a Federal land manager and for which information is available to the general public.

(3) Except for the permit reopening paragraph (1)(i) for the correction of typographical/calculation errors that do not increase the PAL level, other reopening shall be carried out in accordance with the public participation requirements of 25 Pa Code 127.218(e).

(b) A PAL permit which is not renewed in accordance with the procedures in 25 Pa Code 127.218(k) expires at the end of the PAL effective period and the following requirements apply:

(1) The owner or operator of each emissions unit or each group of emissions units that existed under the PAL shall comply with an allowable emissions limitation under a revised permit established according to the following procedures:

(i) Within the time frame specified for PAL permit renewals in 25 Pa Code 127.218(k)(2), the owner or operator of the major facility shall submit a proposed allowable emissions limitation for each emissions unit, or each group of emissions units if this distribution of allowable emissions is more appropriate as determined by the Department, by distributing the PAL allowable emissions for the major facility among each of the emissions units that existed under the PAL permit. If the PAL permit has not been adjusted for an applicable requirement that became effective during the PAL effective period, as required under 25 Pa Code 127.218(k)(5), this distribution is made as if the PAL permit has been adjusted.

(ii) The Department will decide whether and how to distribute the PAL allowable emissions and issue a revised PAL permit incorporating allowable limits for each emissions unit or each group of emissions units.

(2) The owner or operator of each emissions unit or group of emissions units shall comply with the allowable emissions limitation on a 12-month rolling basis. The Department may approve the use of emissions monitoring systems other than CEMS, CERMS, PEMS or CPMS to demonstrate compliance with the allowable emissions limitation.

(3) Until the Department issues the revised PAL permit incorporating the allowable limits for each emissions unit or group of emissions units required under paragraph (1)(i), the owner or operator of the facility shall continue to comply with a facility-wide, multi-unit emissions cap equivalent to the level of the PAL emissions limitation.

(4) A physical change or change in the method of operation at the major facility is subject to Subchapter E, New Source Review, if the change meets the definition of major modification.

(5) The owner or operator of the major facility shall continue to comply with any State or Federal applicable requirements including BAT, BACT, RACT or NSPS that may have applied either during the PAL effective period or prior to the PAL effective period except for those emissions limitations that had been established under § 127.203(e)(2), but were eliminated by the PAL in accordance with the provisions in 25 Pa Code 127.218(a)(3)(iii).

(c) The following requirements apply to renewal of a PAL:

**SECTION E. Source Group Restrictions.**

(1) The Department will follow the procedures specified in 25 Pa Code 127.218(e) in approving a request to renew a PAL permit for a major facility, and will provide both the proposed PAL level and a written rationale for the proposed PAL level to the public for review and comment in accordance with the applicable public notice requirements in §§ 127.44, 127.424 and 127.521. During the public review, a person may propose a PAL level for the major facility for consideration by the Department.

(2) An owner or operator of a major facility shall submit a timely application to the Department to request renewal of a PAL permit. A timely application is one that is submitted at least 6 months prior to, but not earlier than 18 months prior to the date of permit expiration. If the owner or operator of a major facility submits a complete application to renew the PAL permit within this time period, the PAL continues to be effective until the revised permit with the renewed PAL is issued.

(3) The application to renew a PAL permit must contain the following information:

(i) The information required in 25 Pa Code 127.218(b)(1) thru (3).

(ii) A proposed PAL level.

(iii) The sum of the potentials to emit of the emissions units under the PAL.

(iv) Other information the owner or operator wishes the Department to consider in determining the appropriate level at which to renew the PAL.

(4) The Department will consider the options in subparagraphs (i) and (ii) in determining whether and how to adjust the PAL. In no case may the adjustment fail to comply with subparagraphs (iii) and (iv).

(i) If the emissions level calculated in accordance with 25 Pa Code 127.218(f) is equal to or greater than 80% of the PAL level, the Department may renew the PAL at the same level without considering the factors set forth in subparagraph (ii).

(ii) The Department may set the PAL at a level that it determines to be more representative of the facility's baseline actual emissions or that it determines to be appropriate considering air quality needs, advances in control technology, anticipated economic growth in the area, desire to reward or encourage the facility's voluntary emissions reductions or other factors specifically identified by the Department in its written rationale.

(iii) If the potential to emit of the major facility is less than the PAL, the Department will adjust the PAL to a level no greater than the potential to emit of the facility.

(iv) The Department will not approve a renewed PAL level higher than the current PAL unless the major facility has complied with 25 Pa Code 127.218(l).

(5) If the compliance date for a State or Federal requirement that applies to the facility occurs during the PAL effective period and the Department has not already adjusted for this requirement, the PAL must be adjusted at the time of the PAL permit renewal or Title V permit renewal, whichever occurs first.

(d) The following requirements apply to increasing a PAL during the PAL effective period:

(1) The Department may increase a PAL emissions limitation during the PAL effective period if the owner or operator of the major facility complies with the following:

(i) The owner or operator of the major facility shall submit a complete application to request an increase in the PAL limit for a PAL major modification. The application must identify the emissions units contributing to the increase in emissions that cause the major facility's emissions to equal or exceed its PAL.

(ii) The owner or operator of the major facility shall demonstrate that the sum of the baseline actual emissions of the small emissions units assuming application of BAT, plus the sum of the baseline actual emissions of the significant and major emissions units assuming application of BACT equivalent controls, plus the sum of the allowable emissions of the new or modified emissions units exceeds the PAL. The level of control that would result from BAT or BACT equivalent controls on each small emissions unit, significant emissions unit or major emissions unit must be determined by

**SECTION E. Source Group Restrictions.**

conducting a new BAT or BACT analysis at the time the application is submitted unless the emissions unit is currently required to comply with a BAT, BACT or LAER requirement that was established within the preceding 10 years. In this case, the assumed control level for that emissions unit is equal to the level of BAT, BACT or LAER with which that emissions unit must currently comply.

(iii) The owner or operator of the major facility shall obtain a major NSR permit for all emissions units identified in subparagraph (i), regardless of the magnitude of the emissions increase resulting from them. The owner or operator of these emissions units shall comply with the applicable emissions requirements of this subchapter, even if the units are subject to a PAL or continue to be subject to a PAL.

(iv) The PAL permit must require that the increased PAL level be effective on the day any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.

(2) The Department will calculate the new PAL as the sum of the allowable emissions for each modified or new emissions unit, plus the sum of the baseline actual emissions of the significant and major emissions units assuming application of BACT equivalent controls determined in accordance with paragraph (1)(ii), plus the sum of the baseline actual emissions of the small emissions units.

(3) The PAL permit must be revised to reflect the increased PAL level under the public notice requirements of 25 Pa Code 127.218(e).

[25 Pa Code 127.218(i) thru (l)]

**# 004 [25 Pa. Code §127.218.]****PALs.**

At no time during or after the PAL effective period are emissions reductions of a PAL pollutant, which occur during the PAL effective period, creditable as decreases for purposes of offsets under this subchapter unless the level of the PAL is reduced by the amount of the emissions reductions and the reductions would be creditable in the absence of the PAL.

[25 Pa Code 127.218(d)]

**# 005 [25 Pa. Code §127.218.]****PALs.**

(a) A physical change in or change in the method of operation of a major facility that maintains its total facility-wide emissions below the PAL level, meets the requirements in 25 Pa Code 127.218(a) and 25 Pa Code 127.218(b) thru (n) and complies with the PAL permit is not:

- (1) A major modification for the PAL pollutant.
- (2) Subject to this subchapter.
- (3) Subject to § 127.203(e)(2) (relating to facilities subject to special permit requirements).

[25 Pa Code 127.218(a)(3)]

**\*\*\* Permit Shield in Effect. \*\*\***



**SECTION E. Source Group Restrictions.**

Group Name: SG22

Group Description: 40 CFR 63, Subpart DDDDD Source(s)

**Sources included in this group**

ID	Name
440	WASH HOUSE BOILER

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Regulatory Changes:

Individual sources within this source group that are subject to 40 CFR Part 63 Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters shall comply with all applicable requirements of the Subpart. 40 CFR 63.13(a) requires submission of copies of all requests, reports and other communications to both the Department and the EPA. The EPA copies shall be forwarded to:

Associate Director  
Office of Air Enforcement and Compliance Assistance, 3AP20  
U.S. EPA Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

The Department copies shall be forwarded to:

Regional Air Program Manager  
PA Department of Environmental Protection  
909 Elmerton Avenue  
Harrisburg, PA 17110-8200

**SECTION E. Source Group Restrictions.**

In the event that the Federal Subpart that is the subject of this Source Group is revised, the permittee shall comply with the revised version of the subpart, and shall not be required to comply with any provisions in this permit designated as having the subpart as their authority, to the extent that such permit provisions would be inconsistent with the applicable provisions of the revised subpart.

**# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7480]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****What is the purpose of this subpart?**

This subpart establishes national emission limitations and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters located at major sources of HAP. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and work practice standards.

[76 FR page 15664, Mar. 21, 2011; 76 FR 28662, May 18, 2011; 78 FR page 7161, Jan. 31, 2013]

**# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7485]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****Am I subject to this subpart?**

You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler or process heater as defined in § 63.7575 that is located at, or is part of, a major source of HAP, except as specified in § 63.7491. For purposes of this subpart, a major source of HAP is as defined in § 63.2, except that for oil and natural gas production facilities, a major source of HAP is as defined in § 63.7575.

[76 FR page 15664, Mar. 21, 2011; 76 FR 28662, May 18, 2011; 78 FR page 7161, Jan. 31, 2013; 78 FR page 7162, Jan. 31, 2013]

**# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7490]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****What is the affected source of this subpart?**

63.7490(a) This subpart applies to new, reconstructed, and existing affected sources as described in paragraphs (a)(1) and (2) of this section.

63.7490(a)(1) The affected source of this subpart is the collection at a major source of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory as defined in § 63.7575.

63.7490(a)(2) [NA – BOILER IS EXISTING]

63.7490(b) [NA – BOILER IS EXISTING]

63.7490(c) A boiler or process heater is reconstructed if you meet the reconstruction criteria as defined in § 63.2, you commence reconstruction after June 4, 2010, and you meet the applicability criteria at the time you commence reconstruction.

63.7490(d) A boiler or process heater is existing if it is not new or reconstructed.

63.7490(e) [NA - SOURCE IS NOT AN EGU]

[76 FR page 15664, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013; 78 FR page 7162, Jan. 31, 2013]

**# 005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7491]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****Are any boilers or process heaters not subject to this subpart?**

The types of boilers and process heaters listed in paragraphs (a) through (n) of this section are not subject to this subpart.

**SECTION E. Source Group Restrictions.**

- 63.7491(a) [NA – NOT SUBJECT TO 5U]  
63.7491(b) [NA – NOT SUBJECT TO MM]  
63.7491(c) [NA – NO R&D UNITS]  
63.7491(d) [NA – NOT HOT WATER HEATERS]  
63.7491(e) [NA – NO REFINING KETTLES]  
63.7491(f) [NA – NOT SUBJECT TO YY]  
63.7491(g) [NA – NO BLAST FURNACE STOVES]  
63.7491(h) [NA – NO UNITS PART OF SOURCES SUBJECT TO OTHER PART 63 SUBPART, SUCH AS JJJ, OOO, PPP, U]  
63.7491(i) [NA – NO UNITS USED AS CONTROL DEVICES]  
63.7491(j) [NA – NO UNITS DEFINED AS TEMPORARY]  
63.7491(k) [NA – NO UNITS FIRE BLAST FURNACE GAS]  
63.7491(l) [NA – NO CAA SECTION 129 UNITS]  
63.7491(m) [NA – NOT SUBJECT TO EEE]  
63.7491(n) [NA - NO RESIDENTIAL UNITS]

[69 FR page 55253, Sept. 13, 2004, as amended at 71 FR page 70660, Dec. 6, 2006; 76 FR page 15665, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013; 78 FR page 7162, Jan. 31, 2013; 80 FR page 72806, Nov. 20, 2015]

**# 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7495]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****When do I have to comply with this subpart?**

- 63.7495(a) [NA – BOILER IS EXISTING]  
63.7495(b) If you have an existing boiler or process heater, you must comply with this subpart no later than January 31, 2016, except as provided in § 63.6(i).  
63.7495(c) [NA - FACILITY IS ALREADY A MAJOR SOURCE]  
63.7495(d) You must meet the notification requirements in § 63.7545 according to the schedule in § 63.7545 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart.  
63.7495(e) [NA – BOILER DOES NOT COMBUST SOLID WASTE]  
63.7495(f) NA - SOURCE IS NOT AN EGU]  
63.7495(g) [NA - BOILER NOT USED AS A CONTROL DEVICE]  
63.7495(h) If you own or operate an existing industrial, commercial, or institutional boiler or process heater and have switched fuels or made a physical change to the boiler or process heater that resulted in the applicability of a different subcategory after the compliance date of this subpart, you must be in compliance with the applicable existing source

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provisions of this subpart on the effective date of the fuel switch or physical change.

63.7495(i) [NA – BOILER IS EXISTING]

[76 FR page 15665, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013; 78 FR page 7162, Jan. 31, 2013; 80 FR page 72807, Nov. 20, 2015]

**# 007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7499]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What are the subcategories of boilers and process heaters?**

The subcategories of boilers and process heaters, as defined in § 63.7575 are:

63.7499(a) [UNITS IN THIS SOURCE GROUP ARE NOT FIRED WITH PULVERIZED COAL]

63.7499(b) [UNITS IN THIS SOURCE GROUP ARE NOT FIRED WITH COAL/SOLID FOSSIL FUEL]

63.7499(c) [UNITS IN THIS SOURCE GROUP ARE NOT FIRED WITH FLUIDIZED BED COAL]

63.7499(d) - (j) [UNITS IN THIS SOURCE GROUP ARE NOT FIRED WITH BIOMASS]

63.7499(k) [UNITS ARE NOT NON-CONTINENTAL]

63.7499(l) Units designed to burn gas 1 fuels.

63.7499(m) [UNITS IN THIS SOURCE GROUP ARE NOT FIRED WITH "GAS 2"]

63.7499(n) [UNITS IN THIS SOURCE GROUP ARE NOT METAL PROCESS FURNACES]

63.7499(o) [UNITS IN THIS SOURCE GROUP ARE NOT LIMITED-USE]

63.7499(p) [UNITS IN THIS SOURCE GROUP ARE NOT FIRED WITH SOLID FUEL]

63.7499(q) Units designed to burn liquid fuel.

63.7499(r) [UNITS IN THIS SOURCE GROUP ARE NOT FIRED WITH SOLID FUEL]

63.7499(s) [UNITS IN THIS SOURCE GROUP ARE NOT FIRED WITH SOLID FUEL]

63.7499(t) [UNITS IN THIS SOURCE GROUP ARE NOT FIRED WITH HEAVY LIQUID FUEL]

63.7499(u) Units designed to burn light liquid fuel.

[76 FR page 15665, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013; 78 FR page 7163, Jan. 31, 2013]

**# 008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7500]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What emission limits, work practice standards, and operating limits must I meet?**

63.7500(a) You must meet the requirements in paragraphs (a)(1) through (3) of this section, except as provided in paragraphs (b), through (e) of this section. You must meet these requirements at all times the affected unit is operating, except as provided in paragraph (f) of this section.

63.7500(a)(1) You must meet each emission limit and work practice standard in Tables 1 through 3, and 11 through 13 to this subpart that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under § 63.7522. The output-based emission limits, in units of pounds per million Btu of steam output, in Tables 1 or 2 to this subpart are an alternative applicable only to boilers and process heaters that generate either steam,

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cogenerate steam with electricity, or both. The output-based emission limits, in units of pounds per megawatt-hour, in Tables 1 or 2 to this subpart are an alternative applicable only to boilers that generate only electricity. Boilers that perform multiple functions (cogeneration and electricity generation) or supply steam to common headers would calculate a total steam energy output using equation 21 of § 63.7575 to demonstrate compliance with the output-based emission limits, in units of pounds per million Btu of steam output, in Tables 1 or 2 to this subpart. If you operate a new boiler or process heater, you can choose to comply with alternative limits as discussed in paragraphs (a)(1)(i) through (iii) of this section, but on or after January 31, 2016, you must comply with the emission limits in Table 1 to this subpart.

**RELEVANT DEFINITION:** Unit designed to burn gas 1 subcategory includes any boiler or process heater that burns only natural gas, refinery gas, and/or other gas 1 fuels. Gaseous fuel boilers and process heaters that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year, are included in this definition. Gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply interruptions of any duration are also included in this definition.

**TABLE 3 REQUIREMENTS**

As stated in § 63.7500, you must comply with the following applicable work practice standards:

1. If your unit is a new or existing boiler or process heater with a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour in any of the following subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or unit designed to burn light liquid, or a limited use boiler or process heater, you must meet the following: Conduct a tune-up of the boiler or process heater every 5 years as specified in § 63.7540.
2. [NA - UNIT DOES NOT CONTAIN CONTINUOUS OXYGEN TRIM SYSTEM]
3. [NA - UNIT IS < 5 MMBTU/HR]
4. If your unit is an existing boiler or process heater located at a major source facility, not including limited use units, you must meet the following: Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. A facility that operates under an energy management program compatible with ISO 50001 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in § 63.7575:
  - a. A visual inspection of the boiler or process heater system.
  - b. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints.
  - c. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator.
  - d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.
  - e. A review of the facility's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices, if identified.
  - f. A list of cost-effective energy conservation measures that are within the facility's control.
  - g. A list of the energy savings potential of the energy conservation measures identified.
  - h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

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## END OF TABLE 3 REQUIREMENTS

63.7500(a)(1)(i) - (iii) [NA – NO EMISSION STANDARDS]

63.7500(a)(2) [NA – NO EMISSION STANDARDS]

63.7500(a)(3) At all times, you must operate and maintain any affected source (as defined in § 63.7490), 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 that 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.

63.7500(b) As provided in § 63.6(g), EPA may approve use of an alternative to the work practice standards in this section.

63.7500(c) [NA - NOT A LIMITED-USE BOILER]

63.7500(d) Boilers and process heaters with a heat input capacity of less than or equal to 5 million Btu per hour in the units designed to burn gas 2 (other) fuels subcategory or units designed to burn light liquid fuels subcategory must complete a tune-up every 5 years as specified in § 63.7540.

63.7500(e) Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity of less than or equal to 5 million Btu per hour must complete a tune-up every 5 years as specified in § 63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity greater than 5 million Btu per hour and less than 10 million Btu per hour must complete a tune-up every 2 years as specified in § 63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 to this subpart, or the operating limits in Table 4 to this subpart.

63.7500(f) These standards apply at all times the affected unit is operating, except during periods of startup and shutdown during which time you must comply only with items 5 and 6 of Table 3 to this subpart.

[76 FR page 15665, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013; 78 FR page 7163, Jan. 31, 2013; 80 FR page 72807, Nov. 20, 2015]

**# 009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7501]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**How can I assert an affirmative defense if I exceed an emission limitations during a malfunction?**

[NA – NO EMISSION STANDARDS]

**# 010 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7505]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What are my general requirements for complying with this subpart?**

63.7505(a) You must be in compliance with the emission limits, work practice standards, and operating limits in this subpart. These emission and operating limits apply to you at all times the affected unit is operating except for the periods noted in § 63.7500(f).

63.7505(b) [Reserved]

63.7505(c) - (e) [NA – NO EMISSION STANDARDS]

[69 FR page 55253, Sept. 13, 2004, as amended at 71 FR page 20467, Apr. 20, 2006; 76 FR page 15666, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013; 78 FR page 7164, Jan. 31, 2013; 80 FR page 72807, Nov. 20, 2015]

**# 011 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7510]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial**

**SECTION E. Source Group Restrictions.****and Institutional Boilers and Process Heaters.****What are my initial compliance requirements and by what date must I conduct them?**

63.7510(a) - (d) [NA – NO EMISSION STANDARDS]

63.7510(e) For existing affected sources (as defined in § 63.7490), you must complete the initial compliance demonstrations, as specified in paragraphs (a) through (d) of this section, no later than 180 days after the compliance date that is specified for your source in § 63.7495 and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart, except as specified in paragraph (j) of this section. You must complete an initial tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) no later than the compliance date specified in § 63.7495, except as specified in paragraph (j) of this section. You must complete the one-time energy assessment specified in Table 3 to this subpart no later than the compliance date specified in § 63.7495.

63.7510(f) [NA – UNIT IS EXISTING & NO EMISSION STANDARDS]

63.7510(g) [NA – UNIT IS EXISTING]

63.7510(h) [NA – SOURCES IN THIS GROUP HAVE NOT BURNED SOLID WASTE]

63.7510(i) [NA – NO EGU'S]

63.7510(j) [NA - SOURCE HAS OPERATED BETWEEN THE EFFECTIVE DATE OF THE RULE AND THE COMPLIANCE DATE]

63.7510(k) For affected sources, as defined in § 63.7490, that switch subcategories consistent with § 63.7545(h) after the initial compliance date, you must demonstrate compliance within 60 days of the effective date of the switch, unless you had previously conducted your compliance demonstration for this subcategory within the previous 12 months.

[69 FR page 55253, Sept. 13, 2004, as amended at 71 FR page 70660, Dec. 6, 2006; 76 FR page 15667, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013; 78 FR page 7164, Jan. 31, 2013; 80 FR page 72808, Nov. 20, 2015]

**# 012 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7515]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****When must I conduct subsequent performance tests or fuel analyses, or tune-ups?**

63.7515(a) - (c) [NA – PERFORMANCE TESTING NOT REQUIRED]

63.7515(d) If you are required to meet an applicable tune-up work practice standard, you must conduct an annual, biennial, or 5-year performance tune-up according to § 63.7540(a)(10), (11), or (12), respectively. Each annual tune-up specified in § 63.7540(a)(10) must be no more than 13 months after the previous tune-up. Each biennial tune-up specified in § 63.7540(a)(11) must be conducted no more than 25 months after the previous tune-up. Each 5-year tune-up specified in § 63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed affected source (as defined in § 63.7490), the first annual, biennial, or 5-year tune-up must be no later than 13 months, 25 months, or 61 months, respectively, after April 1, 2013 or the initial startup of the new or reconstructed affected source, whichever is later.

63.7515(e) [NA – FUEL ANALYSIS NOT REQUIRED]

63.7515(f) [NA – PERFORMANCE TESTING/FUEL ANALYSIS NOT REQUIRED]

63.7515(g) For affected sources (as defined in § 63.7490) that have not operated since the previous compliance demonstration and more than one year has passed since the previous compliance demonstration, you must complete the subsequent compliance demonstration, if subject to the emission limits in Tables 1, 2, or 11 through 13 to this subpart, no later than 180 days after the re-start of the affected source and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart. You must complete a subsequent tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) and the schedule described in § 63.7540(a)(13) for units that are not operating at the time of their scheduled tune-up.

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63.7515(h) [NA – PERFORMANCE TESTING NOT REQUIRED]

63.7515(i) [NA – NO CO CEMS]

[76 FR page 15667, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013; 78 FR page 7165, Jan. 31, 2013; 80 FR page 72808, Nov. 20, 2015]

**# 013 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7520]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What performance tests and procedures must I use?**

63.7520(a) - (f) [NA - PERFORMANCE TESTING NOT REQUIRED]

[76 FR page 15668, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013; 78 FR page 7166, Jan. 31, 2013]

**# 014 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7521]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What fuel analyses and procedures must I use?**

63.7521(a) – (i) [NA – FUEL ANALYSIS NOT REQUIRED SINCE NO EMISSION STANDARDS]

[76 FR page 15668, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013; 78 FR page 7167, Jan. 31, 2013; 80 FR page 72808, Nov. 20, 2015]

**# 015 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7522]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**Can I use emission averaging to comply with this subpart?**

63.7522(a) – (k) [NA – NO EMISSION STANDARDS]

[69 FR page 55253, Sept. 13, 2004, as amended at 71 FR page 70660, Dec. 6, 2006; 76 FR page 15669, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013; 78 FR page 7168, Jan. 31, 2013; 80 FR page 72809, Nov. 20, 2015]

**# 016 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7525]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What are my monitoring, installation, operation, and maintenance requirements?**

63.7525(a) - (c) [NA – NO EMISSION STANDARDS]

63.7525(d) [NA – NO CMS REQUIRED]

63.7525(e) [NA – NO FLOW MONITORING SYSTEM REQUIRED]

63.7525(f) [NA – NO PRESSURE MONITORING SYSTEM REQUIRED]

63.7525(g) [NA – NO PH MONITORING SYSTEM REQUIRED]

63.7525(h) [NA – NO ESP]

63.7525(i) [NA – NO SORBENT INJECTION RATE MONITORING SYSTEM]

63.7525(j) [NA – NO BLDS]

63.7525(k) [NA - BOILER NOT A LIMITED-USE BOILER]



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63.7525(l) - (m) [NA – NO EMISSION STANDARDS]

[69 FR page 55253, Sept. 13, 2004, as amended at 71 FR page 70662, Dec. 6, 2006; 76 FR page 15671, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013; 78 FR page 7171, Jan. 31, 2013; 80 FR page 72810, Nov. 20, 2015]

**# 017 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7530]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**How do I demonstrate initial compliance with the emission limitations, fuel specifications and work practice standards?**

63.7530(a) - (c) [NA – NO EMISSION STANDARDS]

63.7530(d) [Reserved]

63.7530(e) You must include with the Notification of Compliance Status a signed certification that either the energy assessment was completed according to Table 3 to this subpart, and that the assessment is an accurate depiction of your facility at the time of the assessment, or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended.

63.7530(f) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.7545(e).

63.7530(g) [NA – UNITS DO NOT USE “OTHER GAS 1 FUEL”]

63.7530(h) - (i) [NA – NO EMISSION STANDARDS]

[76 FR page 15673, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013; 78 FR page 7174, Jan. 31, 2013; 80 FR page 72811, Nov. 20, 2015]

**# 018 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7533]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**Can I use emission credits earned from implementation of energy conservation measures to comply with this subpart?**

63.7533(a) – (g) [NA – NO EMISSION STANDARDS]

[76 FR page 15675, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013; 78 FR page 7178, Jan. 31, 2013; 80 FR page 72812, Nov. 20, 2015]

**# 019 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7535]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**How do I monitor and collect data to demonstrate continuous compliance?**

63.7535(a) - (d) [NA – NO CMS REQUIRED]

[76 FR page 15676, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013; 78 FR page 7179, Jan. 31, 2013; 80 FR page 72812, Nov. 20, 2015]

**# 020 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7540]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**How do I demonstrate continuous compliance with the emission limitations, fuel specifications and work practice standards?**

63.7540(a) You must demonstrate continuous compliance with each emission limit in Tables 1 and 2 or 11 through 13 to this subpart, the work practice standards in Table 3 to this subpart, and the operating limits in Table 4 to this subpart that applies to you according to the methods specified in Table 8 to this subpart and paragraphs (a)(1) through (19) of this section.

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63.7540(a)(1) [NA – NO EMISSION STANDARDS]

63.7540(a)(2) As specified in § 63.7555(d), you must keep records of the type and amount of all fuels burned in each boiler or process heater during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would result in either of the following:

63.7540(a)(2)(i) - (ii) [NA – NO EMISSION STANDARDS]

63.7540(a)(3) - (9) [NA – NO EMISSION STANDARDS]

63.7540(a)(10) [NA – UNITS IN THIS SOURCE GROUP ARE <10 MMBTU]

63.7540(a)(10)(i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

63.7540(a)(10)(ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

63.7540(a)(10)(iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;

63.7540(a)(10)(iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NOX requirement to which the unit is subject;

63.7540(a)(10)(v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and

63.7540(a)(10)(vi) Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (a)(10)(vi)(A) through (C) of this section,

63.7540(a)(10)(vi)(A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;

63.7540(a)(10)(vi)(B) A description of any corrective actions taken as a part of the tune-up; and

63.7540(a)(10)(vi)(C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

63.7540(a)(11) [NA - MEETS CRITERIA OF PARAGRAPH (a)(12) OF THIS SECTION]

63.7540(a)(12) If your boiler or process heater has a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour and the unit is in the units designed to burn gas 1; units designed to burn gas 2 (other); or units designed to burn light liquid subcategories, or meets the definition of limited-use boiler or process heater in § 63.7575, you must conduct a tune-up of the boiler or process heater every 5 years as specified in paragraphs (a)(10)(i) through (vi) of this section to demonstrate continuous compliance. You may delay the burner inspection specified in paragraph (a)(10)(i) of this section until the next scheduled or unscheduled unit shutdown, but you must inspect each burner at least once every 72 months. If an oxygen trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every 5 years, set the oxygen level no lower than the oxygen

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concentration measured during the most recent tune-up.

63.7540(a)(13) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

63.7540(a)(14) - (19) [NA – NO EMISSION STANDARDS]

63.7540(b) You must report each instance in which you did not meet each emission limit and operating limit in Tables 1 through 4 or 11 through 13 to this subpart that apply to you. These instances are deviations from the emission limits or operating limits, respectively, in this subpart. These deviations must be reported according to the requirements in § 63.7550.

63.7540(c) - (d) [NA – NO EMISSION STANDARDS]

[69 FR page 55253, Sept. 13, 2004, as amended at 71 FR page 20467, Apr. 20, 2006; 71 FR page 70662, Dec. 6, 2006; 76 FR page 15676, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013; 78 FR page 7179, Jan. 31, 2013; 80 FR page 72813, Nov. 20, 2015]

**# 021 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7541]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**How do I demonstrate continuous compliance under the emission averaging provision?**

63.7541(a) - (b) [NA – NO EMISSION STANDARDS]

[69 FR page 55253, Sept. 13, 2004, as amended at 71 FR page 70662, Dec. 6, 2006; 76 FR page 15678, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013; 78 FR page 7182, Jan. 31, 2013]

**# 022 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7545]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What notifications must I submit and when?**

63.7545(a) You must submit to the Administrator all of the notifications in § § 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.

63.7545(b) As specified in § 63.9(b)(2), if you startup your affected source before January 31, 2013, you must submit an Initial Notification not later than 120 days after January 31, 2013.

63.7545(c) [NA - BOILER IS EXISTING]

63.7545(d) [NA – PERFORMANCE TESTING NOT REQUIRED]

63.7545(e) If you are required to conduct an initial compliance demonstration as specified in § 63.7530, you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii). For the initial compliance demonstration for each boiler or process heater, you must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of all performance test and/or other initial compliance demonstrations for all boiler or process heaters at the facility according to § 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (8) of this section, as applicable. If you are not required to conduct an initial compliance demonstration as specified in § 63.7530(a), the Notification of Compliance Status must only contain the information specified in paragraphs (e)(1) and (8) of this section and must be submitted within 60 days of the compliance date specified at § 63.7495(b).

63.7545(e)(1) A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with this subpart, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by you or the EPA through a petition process to be a non-waste under § 241.3 of this chapter, whether the fuel(s) were a secondary material processed from discarded non-hazardous secondary materials within the meaning of § 241.3 of this chapter, and justification for the selection of fuel(s) burned during the compliance demonstration.

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63.7545(e)(2) - (5) [NA – NO EMISSION STANDARDS]

63.7545(e)(6) A signed certification that you have met all applicable emission limits and work practice standards.

63.7545(e)(7) If you had a deviation from any emission limit, work practice standard, or operating limit, you must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report.

63.7545(e)(8) In addition to the information required in § 63.9(h)(2), your notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

63.7545(e)(8)(i) "This facility completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR part 63 subpart DDDDD at this site according to the procedures in § 63.7540(a)(10)(i) through (vi)."

63.7545(e)(8)(ii) "This facility has had an energy assessment performed according to § 63.7530(e)."

63.7545(e)(8)(iii) Except for units that burn only natural gas, refinery gas, or other gas 1 fuel, or units that qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act, include the following: "No secondary materials that are solid waste were combusted in any affected unit."

63.7545(f) If you operate a unit designed to burn natural gas, refinery gas, or other gas 1 fuels that is subject to this subpart, and you intend to use a fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart of this part, part 60, 61, or 65, or other gas 1 fuel to fire the affected unit during a period of natural gas curtailment or supply interruption, as defined in § 63.7575, you must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in § 63.7575. The notification must include the information specified in paragraphs (f)(1) through (5) of this section.

63.7545(f)(1) Company name and address.

63.7545(f)(2) Identification of the affected unit.

63.7545(f)(3) Reason you are unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.

63.7545(f)(4) Type of alternative fuel that you intend to use.

63.7545(f)(5) Dates when the alternative fuel use is expected to begin and end.

63.7545(g) [NA – UNITS IN THIS GROUP DO NOT BURN SOLID WASTE]

63.7545(h) If you have switched fuels or made a physical change to the boiler or process heater and the fuel switch or physical change resulted in the applicability of a different subcategory, you must provide notice of the date upon which you switched fuels or made the physical change within 30 days of the switch/change. The notification must identify:

63.7545(h)(1) The name of the owner or operator of the affected source, as defined in § 63.7490, the location of the source, the boiler(s) and process heater(s) that have switched fuels, were physically changed, and the date of the notice.

63.7545(h)(2) The currently applicable subcategory under this subpart.

63.7545(h)(3) The date upon which the fuel switch or physical change occurred.

[76 FR page 15678, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013; 78 FR page 7183, Jan. 31, 2013; 80 FR page 72814, Nov. 20, 2015]

**# 023 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7550]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What reports must I submit and when?**

**SECTION E. Source Group Restrictions.**

63.7550(a) You must submit each report in Table 9 to this subpart that applies to you.

**TABLE 9 REQUIREMENTS**

As stated in § 63.7550, you must comply with the following requirements for reports:

You must submit a compliance report. The report must contain

- a. Information required in § 63.7550(c)(1) through (5); and
- b. If there are no deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 3 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in § 63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and
- c. If you have a deviation from any emission limitation (emission limit and operating limit) where you are not using a CMS to comply with that emission limit or operating limit, or a deviation from a work practice standard during the reporting period, the report must contain the information in § 63.7550(d); and
- d. [NA – NO EMISSION STANDARDS]

You must submit the report semiannually, annually, biennially, or every 5 years according to the requirements in § 63.7550(b).

**END OF TABLE 9 REQUIREMENTS**

63.7550(b) Unless the EPA Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report, according to paragraph (h) of this section, by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (4) of this section. For units that are subject only to a requirement to conduct subsequent annual, biennial, or 5-year tune-up according to § 63.7540(a)(10), (11), or (12), respectively, and not subject to emission limits or Table 4 operating limits, you may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of this section, instead of a semi-annual compliance report.

63.7550(b)(1) The first semi-annual compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in § 63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in § 63.7495. If submitting an annual, biennial, or 5-year compliance report, the first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in § 63.7495 and ending on December 31 within 1, 2, or 5 years, as applicable, after the compliance date that is specified for your source in § 63.7495.

63.7550(b)(2) The first semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler or process heater in § 63.7495. The first annual, biennial, or 5-year compliance report must be postmarked or submitted no later than January 31.

63.7550(b)(3) Each subsequent semi-annual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual, biennial, and 5-year compliance reports must cover the applicable 1-, 2-, or 5-year periods from January 1 to December 31.

63.7550(b)(4) Each subsequent semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than January 31.

63.7550(b)(5) For each affected source that is subject to permitting regulations pursuant to part 70 or part 71 of this chapter, and if the permitting authority has established dates for submitting semiannual reports pursuant to 70.6(a)(3)(iii)(A)

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or 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established in the permit instead of according to the dates in paragraphs (b)(1) through (4) of this section.

63.7550(c) A compliance report must contain the following information depending on how the facility chooses to comply with the limits set in this rule.

63.7550(c)(1) If the facility is subject to the requirements of a tune up you must submit a compliance report with the information in paragraphs (c)(5)(i) through (iii) of this section, (xiv) and (xvii) of this section, and paragraph (c)(5)(iv) of this section for limited-use boiler or process heater.

63.7550(c)(2) [NA – FUEL ANALYSES NOT REQUIRED]

63.7550(c)(3) - (4) [NA – NO EMISSION STANDARDS]

63.7550(c)(5)

63.7550(c)(5)(i) Company and Facility name and address.

63.7550(c)(5)(ii) Process unit information, emissions limitations, and operating parameter limitations.

63.7550(c)(5)(iii) Date of report and beginning and ending dates of the reporting period.

63.7550(c)(5)(iv) The total operating time during the reporting period.

63.7550(c)(5)(v) - (xii) [NA – NO EMISSION STANDARDS]

63.7550(c)(5)(xiv) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual, biennial, or 5-year tune-up according to § 63.7540(a)(10), (11), or (12) respectively. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.

63.7550(c)(5)(xv) - (xviii) [NA – NO EMISSION STANDARDS]

63.7550(d) - (e) [NA – NO EMISSION STANDARDS]

63.7550(f) - (g) [Reserved]

63.7550(h) You must submit the reports according to the procedures specified in paragraphs (h)(1) through (3) of this section.

63.7550(h)(1) - (2) [NA – NO EMISSION STANDARDS]

63.7550(h)(3) You must submit all reports required by Table 9 of this subpart electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) 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 XML schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), 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 to 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.

[76 FR page 15679, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013; 78 FR page 7183, Jan. 31, 2013; 80 FR page 72814, Nov. 20, 2015]

**# 024 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7555]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What records must I keep?**

**SECTION E. Source Group Restrictions.**

63.7555(a) You must keep records according to paragraphs (a)(1) and (2) of this section.

63.7555(a)(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

63.7555(a)(2) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in § 63.10(b)(2)(viii).

63.7555(a)(3) [NA - NOT A LIMITED USE BOILER]

63.7555(b) - (g) [NA – NO EMISSION STANDARDS]

63.7555(h) If you operate a unit in the unit designed to burn gas 1 subcategory that is subject to this subpart, and you use an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under this part, other gas 1 fuel, or gaseous fuel subject to another subpart of this part or part 60, 61, or 65, you must keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies.

[76 FR page 15681, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013; 78 FR page 7185, Jan. 31, 2013; 80 FR page 72816, Nov. 20, 2015]

**# 025 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7560]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**In what form and how long must I keep my records?**

63.7560(a) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1).

63.7560(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

63.7560(c) You must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records off site for the remaining 3 years.

[76 FR page 15682, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013]

**# 026 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7565]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What parts of the General Provisions apply to me?**

Table 10 to this subpart shows which parts of the General Provisions in § § 63.1 through 63.15 apply to you.

[76 FR page 15682, Mar. 21, 2011; 76 FR 28662, May. 18, 2011; 78 FR page 7161, Jan. 31, 2013]

\*\*\* **Permit Shield in Effect.** \*\*\*



**SECTION E. Source Group Restrictions.**

Group Name: SG23

Group Description: 40 CFR 63, Subpart ZZZZ Source(s)

**Sources included in this group**

ID	Name
176	FIRE PUMP (EMERGENCY)
420	AUX KILN DRIVE

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Regulatory Changes:

Individual sources within this source group that are subject to 40 CFR Part 63 Subpart ZZZZ -National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines shall comply with all applicable requirements of the Subpart. 40 CFR 63.13(a) requires submission of copies of all requests, reports and other communications to both the Department and the EPA. The EPA copies shall be forwarded to:

Associate Director  
Office of Air Enforcement and Compliance Assistance, 3AP20  
U.S. EPA Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

The Department copies shall be forwarded to:

Regional Air Program Manager  
PA Department of Environmental Protection  
909 Elmerton Avenue  
Harrisburg, PA 17110-8200



**SECTION E. Source Group Restrictions.**

In the event that the Federal Subpart that is the subject of this Source Group is revised, the permittee shall comply with the revised version of the subpart, and shall not be required to comply with any provisions in this permit designated as having the subpart as their authority, to the extent that such permit provisions would be inconsistent with the applicable provisions of the revised subpart.

**# 002 [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.

63.6585(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.

63.6585(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.

63.6585(c) An area source of HAP emissions is a source that is not a major source.

63.6585(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 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 sentence, you must continue to comply with the provisions of this subpart as applicable.

63.6585(e) [NA – NOT USED FOR NATIONAL SECURITY PURPOSES]

63.6585(f) [NA – RICE NOT RESIDENTIAL, COMMERCIAL OR INSTITUTIONAL]

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

**# 003 [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.

63.6590(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.

63.6590(a)(1) Existing stationary RICE.

63.6590(a)(1)(i) [NA - ENGINES < 500 BHP]

63.6590(a)(1)(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

63.6590(a)(1)(iii) [NA - FACILITY IS MAJOR FOR HAP]

63.6590(a)(1)(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or

**SECTION E. Source Group Restrictions.**

reconstructed stationary RICE.

63.6590(a)(2) [NA – NOT A NEW RICE]

63.6590(a)(3) [NA – NOT A RECONSTRUCTED RICE]

63.6590(b)(1) - (2) [NA - ENGINES ARE EXISTING]

63.6590(b)(3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:

63.6590(b)(3)(i) - (v) [NA – ENGINES < 500 HP]

63.6590(c) [NA - ENGINES ARE EXISTING]

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

**# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6595]**

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

**When do I have to comply with this subpart?**

63.6595(a) Affected Sources.

63.6595(a)(1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations, operating limitations and other requirements no later than June 15, 2007. If you have an existing nonemergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than October 19, 2013.

63.6595(a)(2) - (7) [NA – ENGINES ARE EXISTING]

63.6595(b) [NA - FACILITY IS MAJOR FOR HAP]

63.6595(c) If you own or operate an affected source, you must meet the applicable notification requirements in § 63.6645 and in 40 CFR part 63, subpart A.

[69 FR page 33506, June 15, 2004, as amended at 73 FR page 3604, Jan. 18, 2008; 75 FR page 9675, Mar. 3, 2010; 75 FR page 51589, Aug. 20, 2010; 78 FR page 6701, Jan. 30, 2013]

**# 005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6600]**

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

**What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?**

[NA – ENGINES < 500 HP]

**# 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6601]**

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

**What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?**

**SECTION E. Source Group Restrictions.**

[NA – ENGINES ARE EXISTING]

**# 007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6602]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What emission limitations must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?**

If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations and other requirements in Table 2c to this subpart which apply to you. Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in § 63.6620 and Table 4 to this subpart.

## TABLE 2c REQUIREMENTS:

ITEM 1. For each EMERGENCY STATIONARY CI RICE and black start stationary CI RICE, you must meet the following requirement, except during periods of startup SEE NOTE (1):

- (a) Change oil and filter every 500 hours of operation or annually, whichever comes first SEE NOTE (2);
- (b) Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
- (c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary SEE NOTE (3).

ITEM 6. Emergency stationary SI RICE and black start stationary SI RICE. SEE NOTE (1)

- (a) Change oil and filter every 500 hours of operation or annually, whichever comes first. SEE NOTE (2)
- (b) Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;
- (c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. SEE NOTE (3)

During periods of startup you must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. SEE NOTE (3)

NOTE (1): If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

NOTE (2): Sources have the option to utilize an oil analysis program as described in § 63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2c of this subpart.

NOTE (3): Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[END OF TABLE 2c REQUIREMENTS]

**# 008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6603]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines**

**SECTION E. Source Group Restrictions.**

**What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?**

[NA - FACILITY IS MAJOR FOR HAP]

**# 009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6604]**

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

**What fuel requirements must I meet if I own or operate an existing stationary CI RICE?**

63.6604(a) [NA – ENGINE(S) ARE EMERGENCY]

63.6604(b) Beginning January 1, 2015, if you own or operate an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is 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) or that operates for the purpose specified in § 63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

63.6604(c) [NA – ENGINE(S) ARE EXISTING]

63.6604(d) [NA – ENGINE(S) NOT IN SPECIFIED GEOGRAPHICAL AREAS]

**# 010 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6605]**

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

**What are my general requirements for complying with this subpart?**

63.6605(a) You must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to you at all times.

63.6605(b) 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. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. 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.

[69 FR page 33506, June 15, 2004, as amended at 75 FR page 9675, Mar. 3, 2010; 78 FR page 6702, Jan. 30, 2013]

**# 011 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6610]**

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

**By what date must I conduct the initial performance tests or other initial compliance demonstrations?**

[NA – ENGINES < 500 HP]

**# 012 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6611]**

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

**By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating (please see below)**

[NA – ENGINES ARE EXISTING]

**# 013 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6612]**

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

**By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake (please see below)**

If you own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions you are subject to the

**SECTION E. Source Group Restrictions.**

requirements of this section.

63.6612(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in § 63.7(a)(2). [PER TABLES 4 AND 5, NO TESTING APPLIES TO EMERGENCY ENGINES]

63.6612(b) [PER TABLES 4 AND 5, NO TESTING APPLIES TO EMERGENCY ENGINES]

[75 FR 9676, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010]

**# 014 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6615]**

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

**When must I conduct subsequent performance tests?**

[NA – PER TABLE 3, NO TESTING APPLIES TO EMERGENCY ENGINES]

**# 015 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6620]**

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

**What performance tests and other procedures must I use?**

[NA – PER TABLE 3, NO TESTING APPLIES TO EMERGENCY ENGINES]

**# 016 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6625]**

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

**What are my monitoring, installation, operation, and maintenance requirements?**

63.6625(a) [NA – CEMS NOT REQUIRED]

63.6625(b) [NA – CPMS NOT REQUIRED]

63.6625(c) [NA – LFG NOT USED]

63.6625(d) [NA – NOT A MAJOR HAP SOURCE]

63.6625(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

63.6625(e)(1) [NA - UNITS > 100 HP]

63.6625(e)(2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;

63.6625(e)(3) - (10) [NA - FACILITY IS MAJOR FOR HAP]

63.6625(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

63.6625(g) [NA – EMERGENCY ENGINE(S)]

63.6625(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

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63.6625(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

63.6625(j) [NA - NO SI ENGINES]

[69 FR page 33506, June 15, 2004, as amended at 73 FR page 3606, Jan. 18, 2008; 75 FR page 9676, Mar. 3, 2010; 75 FR page 51589, Aug. 20, 2010; 76 FR page 12866, Mar. 9, 2011; 78 FR page 6703, Jan. 30, 2013]

**# 017 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6630]**

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

**How do I demonstrate initial compliance with the emission limitations and operating limitations?**

63.6630(a) [NA – NONE OF THE CATEGORIES IN TABLE 5 APPLY TO EMERGENCY ENGINES]

63.6630(b) [NA – PERFORMANCE TESTING NOT REQUIRED]

63.6630(c) [NA – NOCS NOT REQUIRED FOR EXISTING EMERGENCY RICE]

63.6630(d) - (e) [NA – EMERGENCY ENGINES]

[Amended at 78 FR page 6704, Jan. 30, 2013]

**# 018 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6635]**

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

**How do I monitor and collect data to demonstrate continuous compliance?**

[NA – NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]

**# 019 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6640]**

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

**How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?**

63.6640(a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

**TABLE 6 REQUIREMENTS**

ITEM 9. FOR EACH Existing emergency and black start stationary RICE  $\leq$ 500 HP located at a major source of HAP, existing non-emergency stationary RICE  $<$ 100 HP located at a major source of HAP, existing emergency and black start stationary RICE located at an area source of HAP, existing non-emergency stationary CI RICE  $\leq$ 300 HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency stationary SI RICE located at an area source of HAP which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, existing non-emergency 4SLB and 4SRB stationary RICE  $\leq$ 500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE  $>$ 500 HP located at an area

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source of HAP that operate 24 hours or less per calendar year, and existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are remote stationary RICE, complying with the requirement to "Work or Management practices", you must demonstrate continuous compliance by:

- i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or
- ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[END OF TABLE 6 REQUIREMENTS]

63.6640(b) [NA – NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]

63.6640(c) [NA – ANNUAL COMPLIANCE DEMONSTRATION NOT REQUIRED]

63.6640(d) [NA – NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]

63.6640(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.

63.6640(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE 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 (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

63.6640(f)(1) There is no time limit on the use of emergency stationary RICE in emergency situations.

63.6640(f)(2) You may operate your emergency stationary RICE 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 nonemergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

63.6640(f)(2)(i) Emergency stationary RICE 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 RICE beyond 100 hours per calendar year.

63.6640(f)(2)(ii) - (iii) [NA - VACATED AS OF 5/2/16 PER COURT ORDER]



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63.6640(f)(3) Emergency stationary RICE located at major sources of HAP 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. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

63.6640(f)(4) [NA - FACILITY IS MAJOR FOR HAP]

[69 FR page 33506, June 15, 2004, as amended at 71 FR page 20467, Apr. 20, 2006; 73 FR page 3606, Jan. 18, 2008; 75 FR page 9676, Mar. 3, 2010; 75 FR page 51591, Aug. 20, 2010; 78 FR page 6704, Jan. 30, 2013]

**# 020 [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?**

63.6645(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;

63.6645(a)(1) An existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

63.6645(a)(2) [NA - FACILITY IS MAJOR FOR HAP]

63.6645(a)(3) [NA – ENGINES < 500 HP]

63.6645(a)(4) [NA – ENGINES ARE EXISTING]

63.6645(a)(5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.

63.6645(b) - (f) [NA – PER (a)(5)]

63.6645(g) - (h) [NA – PERFORMANCE TEST NOT REQUIRED]

63.6645(i) [NA – FACILITY IS MAJOR FOR HAP AND ENGINES ARE EMERGENCY]

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

**# 021 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6650]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What reports must I submit and when?**

[NA - EXCEPT FOR FOOTNOTE 1 OF TABLE 2c, FACILITY IS NOT SUBJECT TO ANY REPORTING REQUIREMENTS IN TABLE 7]

**# 022 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6655]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What records must I keep?**

63.6655(a) [NA – NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]

63.6655(b) [NA – NO CEMS OR CPMS]

63.6655(c) [NA – LFG NOT USED]

63.6655(d) [NA – NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]



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63.6655(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

63.6655(e)(1) [NA - RICE RATED > 100 BHP]

63.6655(e)(2) An existing stationary emergency RICE.

63.6655(e)(3) [NA - FACILITY IS MAJOR FOR HAP]

63.6655(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) through (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in § 63.6640(f)(2)(ii) or (iii) or § 63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

63.6655(f)(1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.

63.6655(f)(2) [NA - FACILITY IS MAJOR FOR HAP]

[69 FR page 33506, June 15, 2004, as amended at 75 FR page 9678, Mar. 3, 2010; 75 FR page 51592, Aug. 20, 2010; 78 FR page 6706, Jan. 30, 2013]

**# 023 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6660]**

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

**In what form and how long must I keep my records?**

63.6660(a) Your records must be in a form suitable and readily available for expeditious review according to § 63.10(b)(1).

63.6660(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

63.6660(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1).

[69 FR page 33506, June 15, 2004, as amended at 75 FR page 9678, Mar. 3, 2010]

**# 024 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6665]**

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

**What parts of the General Provisions apply to me?**

Table 8 to this subpart shows which parts of the General Provisions in § 63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE. [EXCEPT PER 63.6645(a)(5), THE FOLLOWING DO NOT APPLY: 63.7(b) AND (c), 63.8(e), (f)(4) AND (f)(6), AND 63.9(b)-(e), (g) AND (h)]



**SECTION E. Source Group Restrictions.**

[75 FR page 9678, Mar. 3, 2010]

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: SG24

Group Description: CEM Standard Conditions

Sources included in this group

ID	Name
121	PORTLAND CEMENT KILN #1
122	PORTLAND CEMENT KILN #2
125	CLINKER COOLER #1
126	CLINKER COOLER #2

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

All continuous emission monitors shall meet the following minimum data availability requirements:

(a) In accordance with 25 PA Code §139.101(12), required monitoring for NO<sub>x</sub>, SO<sub>2</sub> and CO shall, at a minimum, meet one of the following data availability requirements unless otherwise stipulated in this permit, plan approval, Title 25 or an order issued under Section 4 of the Air Pollution Control Act:

(1) In each calendar month, at least 90% of the time periods for which each emission standard applies, shall be valid as set forth in the Quality Assurance section of Revision No. 8 of the Department's Continuous Source Monitoring Manual or;

(2) 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.

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

**# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

This section applies to sources monitoring opacity.

(1) Opacity measurements shall be converted to represent plume opacity as described in the manual referenced in §139.102(3) (relating to references). The conversion method shall be approved by the Department.

(2) Opacity monitoring systems shall meet at least one of the following minimum data availability requirements unless other data availability requirements are stipulated elsewhere in this title for a particular process:

(i) At least 90% of the hours in each calendar month shall be valid hours as set forth in the quality assurance section of the manual referenced in §139.102(3).

(ii) At least 95% of the hours in each calendar quarter shall be valid hours as set forth in the quality assurance section of the manual referenced in §139.102(3).

**IV. RECORDKEEPING REQUIREMENTS.****# 003 [25 Pa. Code §127.441]****Operating permit 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), (and) the "Record Keeping and Reporting"

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requirements in Revision No. 8 of the Department's Continuous Source Monitoring Manual, 274-0300-001.

Records shall be retained for at least 5 years and shall be made available to the Department upon request.

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

**V. REPORTING REQUIREMENTS.****# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall submit quarterly reports of continuous emission monitoring 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 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 by the deadline established in the CEMS certification letter.

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.

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

**VI. WORK PRACTICE REQUIREMENTS.****# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Quality Assurance Requirement:

[Additional authority for this permit condition is derived from 25 PA Code §§ 139.101(1)(v), 139.101(2), 139.101(3), 139.101(4), 139.101(6), 139.101(7), 139.101(12), 139.(14) and 139.101(15)]

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 the Department's Continuous Source Monitoring Manual, Revision No. 8.

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

**VII. ADDITIONAL REQUIREMENTS.****# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The following continuous emission monitoring system (CEMS) and components must be installed, approved by the Department, operated and maintained in accordance with the requirements of 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.

PORTLAND CEMENT KILN #1

1. NOx CEMS 1

- a. Source Combination to be Monitored: Source 121
- b. Parameter to be Reported: NOx (as NO2)

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- c. Units of Measurement to be Reported: lb/hr
  - d. Moisture Basis of Measurement to be Reported: NA
  - e. Correction basis of Measurements to be Reported: NA
  - f. Data Substitution Required: Yes, for NO<sub>x</sub> lbs/hr as per 40 CFR Part 75 or in accordance with Department-approved methodology
  - g. Emission Standard: 313.8 lb/hr; The NO<sub>x</sub> CEMS (CMS) data will be used to determine compliance with RACT 2.
  - h. Averaging Period: 30-day average, rolling by 1 day; RACT 2 - NO<sub>x</sub> data to be collected and recorded as one-hour averages to be summarized daily and then used in the calculation of a 30-day rolling daily average and expressed as pounds of NO<sub>x</sub> emitted per ton of clinker produced. The RACT 2 requirement for a long dry-process kiln in Pennsylvania is to not exceed 3.44 lbs NO<sub>x</sub> per ton of clinker produced in a 30-day rolling average for all operating periods in a calendar year.
2. NO<sub>x</sub> CEMS 2
- a. Source Combination to be Monitored: Source 121
  - b. Parameter to be Reported: NO<sub>x</sub>
  - c. Units of Measurement to be Reported: lb/hr
  - d. Moisture Basis of Measurement to be Reported: NA
  - e. Correction basis of Measurements to be Reported: NA
  - f. Data Substitution Required: Yes
  - g. Emission Standard: NA
  - h. Averaging Period: 12 month sum, rolling by 1 month
3. SO<sub>2</sub> CEMS 1
- a. Source Combination to be Monitored: Source 121
  - b. Parameter to be Reported: SO<sub>2</sub>
  - c. Units of Measurement to be Reported: ppmv
  - d. Moisture Basis of Measurement to be Reported: dry
  - e. Correction basis of Measurements to be Reported: NA
  - f. Data Substitution Required: No
  - g. Emission Standard: 500 ppmv
  - h. Averaging Period: 1 hr average, block
4. SO<sub>2</sub> CEMS 2
- a. Source Combination to be Monitored: Source 121
  - b. Parameter to be Reported: SO<sub>2</sub>
  - c. Units of Measurement to be Reported: lb/hr
  - d. Moisture Basis of Measurement to be Reported: NA
  - e. Correction basis of Measurements to be Reported: NA
  - f. Data Substitution Required: Yes
  - g. Emission Standard: NA
  - h. Averaging Period: 12 month sum, rolling by 1 month
5. SO<sub>2</sub> CEMS 3
- a. Source Combination to be Monitored: Source 121
  - b. Parameter to be Reported: SO<sub>2</sub>
  - c. Units of Measurement to be Reported: lb/hr
  - d. Moisture Basis of Measurement to be Reported: NA
  - e. Correction basis of Measurements to be Reported: NA
  - f. Data Substitution Required: Yes
  - g. Emission Standard: 67.7 lb/hr
  - h. Averaging Period: 30-day average, rolling by 1 day
6. CO CEMS
- a. Source Combination to be Monitored: Source 121
  - b. Parameter to be Reported: CO
  - c. Units of Measurement to be Reported: lb/hr
  - d. Moisture Basis of Measurement to be Reported: NA

**SECTION E. Source Group Restrictions.**

- e. Correction basis of Measurements to be Reported: NA
- f. Data Substitution Required: Yes
- g. Emission Standard: NA
- h. Averaging Period: 12 month sum, rolling by 1 month

**7. Opacity CEMS**

- a. Source Combination to be Monitored: Source 121
- b. Parameter to be Reported: Opacity
- c. Units of Measurement to be Reported: %
- d. Moisture Basis of Measurement to be Reported: NA
- e. Correction basis of Measurements to be Reported: NA
- f. Data Substitution Required: No
- g. Emission Standard: (1) No more than 3 min/hr  $\geq 20\%$ ; (2) No minutes  $\geq 60\%$
- h. Averaging Period: As indicated in Emission Standard

**8. Clinker Production Continuous Monitoring System (CMS)**

- a. Source Combination to be Monitored: Source 121
- b. Parameter to be Reported: clinker production
- c. Units of Measurement to be Reported: ton/hr
- d. Moisture Basis of Measurement to be Reported: NA
- e. Correction basis of Measurements to be Reported: NA
- f. Data Substitution Required: Yes, for NOx lbs/hr as per 40 CFR Part 75 or in accordance with Department-approved methodology
- g. NOx Emission Standard: There is not a clinker ton/hr emission standard. The clinker production CMS data will be used to determine compliance with RACT 2.
- h. Averaging Period: Clinker Production data to be collected and recorded as one-hour averages. The clinker production will be summarized daily and then used in the calculation of a 30-day rolling daily average and expressed as pounds of NOx emitted per ton of clinker produced. The RACT 2 requirement for a long dry-process kiln in Pennsylvania is to not exceed 3.44 lbs NOx per ton of clinker produced in a 30-day rolling average for all operating periods in a calendar year.

**PORTLAND CEMENT KILN #2****1. NOx CEMS 1**

- a. Source Combination to be Monitored: Source 122
- b. Parameter to be Reported: NOx (as NO<sub>2</sub>)
- c. Units of Measurement to be Reported: lb/hr
- d. Moisture Basis of Measurement to be Reported: NA
- e. Correction basis of Measurements to be Reported: NA
- f. Data Substitution Required: Yes, for NOx lbs/hr as per 40 CFR Part 75 or in accordance with Department-approved methodology
- g. Emission Standard: 313.8 lb/hr; The NOx CEMS (CMS) data will be used to determine compliance with RACT 2.
- h. Averaging Period: 30-day average, rolling by 1 day; RACT 2 - NOx data to be collected and recorded as one-hour averages to be summarized daily and then used in the calculation of a 30-day rolling daily average and expressed as pounds of NOx emitted per ton of clinker produced. The RACT 2 requirement for a long dry-process kiln in Pennsylvania is to not exceed 3.44 lbs NOx per ton of clinker produced in a 30-day rolling average for all operating periods in a calendar year.

**2. NOx CEMS 2**

- a. Source Combination to be Monitored: Source 122
- b. Parameter to be Reported: NOx
- c. Units of Measurement to be Reported: lb/hr
- d. Moisture Basis of Measurement to be Reported: NA
- e. Correction basis of Measurements to be Reported: NA
- f. Data Substitution Required: Yes
- g. Emission Standard: NA
- h. Averaging Period: 12 month sum, rolling by 1 month

**SECTION E. Source Group Restrictions.****3. SO2 CEMS 1**

- a. Source Combination to be Monitored: Source 122
- b. Parameter to be Reported: SO2
- c. Units of Measurement to be Reported: ppmv
- d. Moisture Basis of Measurement to be Reported: dry
- e. Correction basis of Measurements to be Reported: NA
- f. Data Substitution Required: No
- g. Emission Standard: 500 ppmv
- h. Averaging Period: 1 hr average, block

**4. SO2 CEMS 2**

- a. Source Combination to be Monitored: Source 122
- b. Parameter to be Reported: SOx
- c. Units of Measurement to be Reported: lb/hr
- d. Moisture Basis of Measurement to be Reported: NA
- e. Correction basis of Measurements to be Reported: NA
- f. Data Substitution Required: Yes
- g. Emission Standard: NA
- h. Averaging Period: 12 month sum, rolling by 1 month

**5. SO2 CEMS 3**

- a. Source Combination to be Monitored: Source 122
- b. Parameter to be Reported: SO2
- c. Units of Measurement to be Reported: lb/hr
- d. Moisture Basis of Measurement to be Reported: NA
- e. Correction basis of Measurements to be Reported: NA
- f. Data Substitution Required: Yes
- g. Emission Standard: 67.7 lb/hr
- h. Averaging Period: 30-day average, rolling by 1 day

**6. CO CEMS**

- a. Source Combination to be Monitored: Source 122
- b. Parameter to be Reported: CO
- c. Units of Measurement to be Reported: lb/hr
- d. Moisture Basis of Measurement to be Reported: NA
- e. Correction basis of Measurements to be Reported: NA
- f. Data Substitution Required: Yes
- g. Emission Standard: NA
- h. Averaging Period: 12 month sum, rolling by 1 month

**7. Opacity CEMS**

- a. Source Combination to be Monitored: Source 122
- b. Parameter to be Reported: Opacity
- c. Units of Measurement to be Reported: %
- d. Moisture Basis of Measurement to be Reported: NA
- e. Correction basis of Measurements to be Reported: NA
- f. Data Substitution Required: No
- g. Emission Standard: (1) No more than 3 min/hr  $\geq$  20%; (2) No minutes  $\geq$  60%
- h. Averaging Period: As indicated in Emission Standard

**8. Clinker Production Continuous Monitoring System (CMS)**

- a. Source Combination to be Monitored: Source 121
- b. Parameter to be Reported: clinker production
- c. Units of Measurement to be Reported: ton/hr
- d. Moisture Basis of Measurement to be Reported: NA
- e. Correction basis of Measurements to be Reported: NA
- f. Data Substitution Required: Yes, for NOx lbs/hr as per 40 CFR Part 75 or in accordance with Department-approved

**SECTION E. Source Group Restrictions.**

methodology

g. NO<sub>x</sub> Emission Standard: There is not a clinker ton/hr emission standard. The clinker production CMS data will be used to determine compliance with RACT 2.

h. Averaging Period: Clinker Production data to be collected and recorded as one-hour averages. The clinker production will be summarized daily and then used in the calculation of a 30-day rolling daily average and expressed as pounds of NO<sub>x</sub> emitted per ton of clinker produced. The RACT 2 requirement for a long dry-process kiln in Pennsylvania is to not exceed 3.44 lbs NO<sub>x</sub> per ton of clinker produced in a 30-day rolling average for all operating periods in a calendar year.

**CLINKER COOLER #1****1. Opacity CEMS**

a. Source Combination to be Monitored: Source 125

b. Parameter to be Reported: Opacity

c. Units of Measurement to be Reported: %

d. Moisture Basis of Measurement to be Reported: NA

e. Correction basis of Measurements to be Reported: NA

f. Data Substitution Required: No

g. Emission Standard: (1) No more than 3 min/hr  $\geq$  20%; (2) No minutes  $\geq$  60%

h. Averaging Period: As indicated in Emission Standard

**CLINKER COOLER #2****1. Opacity CEMS**

a. Source Combination to be Monitored: Source 126

b. Parameter to be Reported: Opacity

c. Units of Measurement to be Reported: %

d. Moisture Basis of Measurement to be Reported: NA

e. Correction basis of Measurements to be Reported: NA

f. Data Substitution Required: No

g. Emission Standard: (1) No more than 3 min/hr  $\geq$  20%; (2) No minutes  $\geq$  60%

h. Averaging Period: As indicated in Emission Standard

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

**\*\*\* Permit Shield in Effect. \*\*\***



**SECTION E. Source Group Restrictions.**

Group Name: SG25

Group Description: §§129.96 - 129.100 - RACT II Requirements

Sources included in this group

ID	Name
109	RAW GRIND #1 & HEATER
110	RAW GRIND #2 & HEATER
112	RAW GRIND #3 & HEATER
121	PORTLAND CEMENT KILN #1
122	PORTLAND CEMENT KILN #2
177	RAW MATERIAL DRYER (SLAG)
502	550 HP AIR COMPRESSOR

**I. RESTRICTIONS.****Emission Restriction(s).**

# 001 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

The emissions of nitrogen oxide (NO<sub>x</sub>) from either Source ID 121 or 122 shall not exceed 3.44 pounds of NO<sub>x</sub> per ton of clinker produced, based on a 30-day rolling average, rolling by 1 day per 25 Pa Code §129.97(h)(2).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

# 002 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

(a) Except as provided in § 129.100(c), the owner and operator of an air contamination source subject to a NO<sub>x</sub> requirement or RACT emission limitation or VOC 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

**SECTION E. Source Group Restrictions.**

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).

(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 § 129.100(a) shall demonstrate compliance with the applicable RACT requirement or RACT emission limitation in accordance with the procedures in § 129.100(a) not later than:

(1) January 1, 2017, for a source subject to § 129.96(a) (relating to applicability).

(c) 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.

(d) 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.

(e) 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.

[Additional authority for this permit condition is derived from 25 Pa Code § 129.100(a)(1), (a)(2), (b)(1), (d), (h), & (i)]

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

**# 003 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

Effective January 1, 2017:

**SECTION E. Source Group Restrictions.**

(a) The permittee shall install, maintain and operate the sources in accordance with the manufacturer's specifications and with good operating practices pursuant to 25 Pa Code § 129.97(c)(1), (c)(2), (c)(3), and (d). Specifically:

(1) 25 Pa Code §129.97(c)(1): Source IDs 177 & 502

(2) 25 Pa Code §129.97 (c)(2): Source ID 502

(3) 25 Pa Code §129.97 (c)(3): Source IDs 109, 110 & 112

(4) 25 Pa Code §129.97 (d): Source IDs 109, 110, 112, 121, 122, & 177

(b) The permittee shall maintain documentation of good operating practices for five years and make available to the Department upon written request pursuant to 25 Pa. Code §129.100(d) and (i).

[Additional authority for this permit condition is derived from 25 Pa Code § 129.97(c)(1), (c)(2), (c)(3), (d), 129.100(d) & (i)]

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: SG26

Group Description: U.S. EPA Consent Decree No. 5:19-cv-05688 Requirements

**Sources included in this group**

ID	Name
121	PORTLAND CEMENT KILN #1
122	PORTLAND CEMENT KILN #2

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this permit condition is derived from the Consent Decree for United States v. Lehigh Cement Co., No. 5:19-cv-05688, (E.D. Pa. Nov. 18, 2020). The definitions and provisions in this permit condition are limited to this permit condition, and do not apply to other conditions in this permit.]

**III. DEFINITIONS**

8. Terms used in this [permit condition] that are defined in the [Clean Air] Act or in regulations promulgated by U.S. EPA pursuant to the Act shall have the meanings assigned to them in the Act or such regulations, unless otherwise provided in this [permit condition]. Whenever the terms set forth below are used in this [permit condition], the following definitions shall apply:

a. "30-Day Rolling Average Emission Limit" shall mean, with respect to any Kiln at a Facility, the maximum allowable rate of emission of a specified air pollutant from such Kiln or Kilns, as applicable, and shall be expressed as pounds (lbs) of such air pollutant emitted per Ton of clinker produced. Compliance with the 30-Day Rolling Average Emission Limit shall be determined by calculating the 30-Day Rolling Average Emission Rate and comparing that with the 30-Day Rolling Average Emission Limit.

b. "30-Day Rolling Average Emission Rate" shall mean, with respect to each Kiln, the rate of emission of NO<sub>x</sub> or SO<sub>2</sub>, respectively, expressed as pounds (lbs) per Ton of clinker produced at such Kiln and calculated in accordance with the

**SECTION E. Source Group Restrictions.**

following procedure: first, sum the total pounds of the pollutant in question emitted from the specified Kiln during an Operating Day and the previous twenty-nine (29) Operating Days, as measured pursuant to Section V.B (NOx Continuous Emission Monitoring Systems) and Section VI.C (SO2 Continuous Emission Monitoring Systems); second, sum the total Tons of clinker produced by that Kiln during the same Operating Day and previous twenty-nine (29) Operating Days; and third, divide the total number of pounds of that pollutant emitted from the Kiln in question during the thirty (30) Operating Days referred to above by the total Tons of clinker produced at such Kiln during the same thirty (30) Operating Days. A new 30-Day Rolling Average Emission Rate shall be calculated for each new Operating Day. Only emission data determined to be valid under 40 C.F.R. § 60.13 or substituted data in accordance with Paragraphs 19 and 28 shall be included. In calculating each 30-Day Rolling Average Emission Rate, the total pounds of that pollutant emitted from a Kiln during a specified period (Operating Day or 30-Day Period) shall include all emissions of that pollutant from the subject Kiln that occur during the specified period, including emissions during each Malfunction; [CD SAYS PARAGRAPH 28, HOWEVER THE CORRECT REFERENCE APPEARS TO BE PARAGRAPH 30]

- e. "CD Emissions Reductions" shall mean any emissions reductions that result from any projects, controls, or any other actions utilized to comply with [the] Consent Decree or [this permit condition];
- f. "CEMS" or "Continuous Emission Monitoring System" shall mean, for obligations involving NOx and SO2 under [the] Consent Decree [or this permit condition], the total equipment and software required to sample and condition (if applicable), to analyze, and to provide a record of NOx and SO2 emission rates, and the raw data necessary to support the reported emission rates, and that have been installed and calibrated in accordance with 40 C.F.R. § 60.13 and 40 C.F.R. Part 60 Appendix B and Appendix F;
- g. "Combustion Control" is the method used to maintain NOx emissions below a prescribed limitation through management of combustion parameters at the Kiln;
- h. "Commence" or "Commencement" of operation of a Control Technology shall mean to begin the introduction of the reagent employed by the Control Technology, as applicable to that technology, or when the technology is otherwise activated;
- k. "Continuously Operate" or "Continuous Operation" shall mean, except as provided below, that when a Control Technology is installed at a Kiln, it shall be operated at all times of Kiln Operation, consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for such Control Technology and the Kiln, except during: (1) Malfunction of the Control Technology, (2) periods where the Kiln is operating below the minimum temperature required for operation of the Control Technology, as specified in writing by the manufacturer or installation contractor (to include [the Permittee] when it serves as manufacturer, installer or designer of the Control Technology), or (3) for Selective Non-Catalytic Reduction System operation, Detached Plume Events. Provided, however, wherever a Control Technology involves the injection or addition of reagent, then the reagent shall be injected or added as necessary to achieve the emissions limits referenced in Table 2 and Table 3.
- m. "Control Technology" shall mean those technologies specified in Sections V and VI of [the Consent] Decree [or this permit condition], which may include a Selective Non-Catalytic Reduction System; Wet or Dry Scrubbers; Combustion Controls; Kiln Inherent Scrubbing (including scrubbing in the in-line raw mill); or a Lime Injection System;
- n. "Day" shall mean a calendar day unless expressly stated to be a Business Day;
- q. "Effective Date" shall mean November 18, 2020.
- r. "Emission Limit" or "Emission Limits" shall mean the maximum allowable rate of emission of a specified air pollutant from a Kiln as specified in Paragraph 12, Table 2 (NOx) and Paragraph 20, Table 3 (SO2);
- t. "Kiln" shall have the same meaning as defined at 40 C.F.R. § 63.1341.
- u. "Kiln Operation" shall mean any period when any raw materials are fed into the Kiln or any combustion is occurring in the Kiln or Calciner burners;
- v. "Lime Injection" or "Lime Injection System" shall mean a pollution control system that injects lime or another reagent that has been demonstrated as effective in reducing SO2 emissions into the gas stream for the purpose of reducing SO2

**SECTION E. Source Group Restrictions.**

emissions (including but not limited to, Hydrated Lime (Ca(OH)<sub>2</sub>), Soda Ash - Sodium Carbonate (Na<sub>2</sub>CO<sub>3</sub>), Sodium Bicarbonate (NaHCO<sub>3</sub>), and Trona – Trisodium hydrogencarbonate dihydrate (Na<sub>2</sub>CO<sub>3</sub>·NaHCO<sub>3</sub>·2H<sub>2</sub>O));

w. "Malfunction" as used in [the] Consent Decree [or this permit condition] shall have the same meaning as defined at 40 C.F.R. § 60.2;

y. "NO<sub>x</sub>" shall mean oxides of nitrogen, measured in accordance with the provisions of [the] Consent Decree [or this permit condition];

z. "Non-attainment NSR" or "NNSR" shall mean the non-attainment area New Source Review ("NSR") program within the meaning of Part D of Subchapter I of the Act, 42 U.S.C. §§ 7501-7515, 40 C.F.R. Part 51, and any applicable State Implementation Plan;

aa. "Operating Day" shall mean any Day on which Kiln Operation has occurred;

bb. "Paragraph" shall mean a portion of [the Consent] Decree [or this permit condition] identified by an Arabic numeral and "Subparagraph" shall mean a portion of [the Consent] Decree [or this permit condition] identified by a lower case letter;

ff. "Section" shall mean a portion of [the Consent] Decree [or this permit condition] identified by a Roman numeral;

gg. "Selective Non-Catalytic Reduction" or "SNCR" shall mean a pollution control system that injects ammonia, monomethylamine, cyanuric acid, and/or urea into the gas stream without the use of a catalyst for the purpose of reducing NO<sub>x</sub> emissions;

hh. "SO<sub>2</sub>" means the pollutant sulfur dioxide, measured in accordance with the provisions of [the] Consent Decree [or this permit condition];

jj. "Temporary Cessation," "Temporary Cessation of Kiln Operation" or "Temporarily Cease Kiln Operation," except for planned and/or maintenance or repair outages at plants, shall mean the period when a Kiln is not in a state of Kiln Operation and the [Permittee] has provided the required written notice within ten (10) Days after such Temporary Cessation began, specifying the date on which such period of Temporary Cessation began.

kk. "Title V permit" shall mean a permit required by and issued in accordance with the requirements of 42 U.S.C. §§ 7661 - 7661f;

ll. "Ton" or "Tons" shall mean short ton or short tons;

oo. "Scrubber" shall mean a pollution control system that employs an absorber vessel and wet or dry scrubbing technology to achieve the reduction of sulfur dioxide emissions. This is distinct from Lime Injection;

## V. NO<sub>x</sub> CONTROL TECHNOLOGY, EMISSION LIMITS AND MONITORING REQUIREMENTS

### A. NO<sub>x</sub> Control Technology and Emission Limits

12. Subject to Section VIII (Temporary Cessation of Kiln Operation), [the Permittee] shall install and Commence Continuous Operation of each NO<sub>x</sub> Control Technology and comply with the Emission Limits for [Evansville Kiln 1 and Evansville Kiln 2] within their respective systems according to Table 2 below by no later than the date specified in Table 2 below. [The Permittee] shall Continuously Operate each specified NO<sub>x</sub> Control Technology as applicable to [Evansville Kiln 1 and Evansville Kiln 2], at all times of Kiln Operation, by no later than the date specified in Table 2 below.

#### APPLICABLE TABLE 2 REQUIREMENTS

Kilns: Evansville Kiln 1 and Evansville Kiln 2

NO<sub>x</sub> Control Technology to be Continuously Operated: SNCR

Deadline for Installation and Commencement of Continuous Operation of NO<sub>x</sub> Control Technology and Compliance with 30- Day Rolling Average Emission Limit for NO<sub>x</sub>: November 18, 2020 plus 6 months

30-Day Rolling Average Emission Limit (lbs NO<sub>x</sub>/Ton of clinker): 3.0

END OF TABLE 2 REQUIREMENTS

**SECTION E. Source Group Restrictions.**

13. For each Kiln in Table 2, beginning on the Operating Day which is the 30th Operating Day after the date specified in Table 2, the [Permittee] shall demonstrate compliance, and thereafter maintain compliance, with the 30-Day Rolling Average Emission Limit for NO<sub>x</sub> specified in Table 2 for that Kiln.

**B. NO<sub>x</sub> Continuous Emission Monitoring Systems**

15. At [Evansville Kiln 1 and Evansville Kiln 2], [the Permittee] shall install and make operational by no later than (a) 12 months after the Effective Date or (b) the Deadline indicated in Table 2, whichever is earlier, a NO<sub>x</sub> continuous emissions monitoring system ("CEMS") at each stack, or other outlet if no stack exists, which collects emissions from such Kiln in accordance with the requirements of 40 C.F.R. Part 60.

16. For [Evansville Kiln 1 and Evansville Kiln 2], beginning on or before the date that a NO<sub>x</sub> CEMS is required pursuant to Paragraph 15, [the Permittee] shall determine and record the daily clinker production rates by either one of the two following methods:

a. 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  $\pm 5$  percent accuracy; or

b. 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  $\pm 5$  percent accuracy.

If [the Permittee] chooses the methodology set forth in Paragraph 16.b to determine the daily clinker production rates at a Kiln, it shall calculate the 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. This ratio should be updated no less frequently than once per month. If this ratio changes at clinker reconciliation, the new ratio must be used going forward, but shall not be applied retroactively to change clinker production rates previously estimated.

17. Except during CEMS breakdowns, repairs, calibration checks, zero span adjustments, and any stack repairs that require the removal and recalibration of the CEMS, the CEMS required pursuant to Paragraph 15 shall be operated at all times during Kiln Operation. Each such CEMS shall be used at [Evansville Kiln 1 and Evansville Kiln 2], to demonstrate compliance with the NO<sub>x</sub> Emission Limits established in Section V.A (NO<sub>x</sub> Control Technology and Emission Limits), as applicable, of this [permit condition].

18. Each NO<sub>x</sub> CEMS required pursuant to Paragraph 15 shall monitor and record the applicable NO<sub>x</sub> emission rate from [Evansville Kiln 1 and Evansville Kiln 2] stack in units of parts per million (ppm), lbs of NO<sub>x</sub> per hour, and lbs of NO<sub>x</sub> per Ton of clinker produced at such Kiln and shall be installed, certified, calibrated, maintained, and operated in accordance with the applicable requirements of 40 C.F.R. Part 60.

19. For purposes of this [permit condition], all emissions of NO<sub>x</sub> from Kilns shall be measured by CEMS. During any time when the CEMS is inoperable or otherwise not measuring emissions of NO<sub>x</sub> from any Kiln, the [Permittee] shall apply the missing data substitution procedures used by [Pennsylvania] or the missing data substitution procedures in 40 C.F.R. Part 75, Subpart D.

**VI. SO<sub>2</sub> CONTROL TECHNOLOGY, EMISSION LIMITS AND MONITORING REQUIREMENTS****A. SO<sub>2</sub> Control Technology and Emission Limits**

20. Subject to Section VIII (Temporary Cessation of Kiln Operation), [the Permittee] shall install and Commence Continuous Operation of each SO<sub>2</sub> Control Technology and comply with the Emission Limits for [Evansville Kiln 1 and Evansville Kiln 2], within their respective systems according to Table 3 below by no later than the date specified in Table 3 below. [The Permittee] shall Continuously Operate each SO<sub>2</sub> Control Technology as applicable to [Evansville Kiln 1 and Evansville Kiln 2], at all times of Kiln Operation by no later than the date specified in Table 3 below.

**TABLE 3 REQUIREMENTS**

Kilns: Evansville Kiln 1 and Evansville Kiln 2

**SECTION E. Source Group Restrictions.**

SO2 Control Technology to be Continuously Operated: Lime Injection  
Deadline for Installation and Commencement of Continuous Operation of SO2 Control Technology and Compliance with 30- Day Rolling Average Emission Limit for SO2: February 16, 2021  
30-Day Rolling Average Emission Limit (lbs SO2 /Ton of clinker): 0.6  
END OF TABLE 3 REQUIREMENTS

21. For [Evansville Kiln 1 and Evansville Kiln 2], beginning on the Operating Day which is the 30th Operating Day after the deadline specified in Table 3, the [Permittee] shall demonstrate compliance and thereafter maintain compliance with the 30-Day Rolling Average Emission Limit for SO2 specified in Table 3 at that Kiln.

**C. SO2 Continuous Emission Monitoring Systems**

26. At [Evansville Kiln 1 and Evansville Kiln 2], [the Permittee] shall install and make operational by no later than (a) 12 months after the Effective Date; [or] (b) the Deadline indicated in Table 3;... whichever is earlier for each Kiln, an SO2 CEMS at each stack, or other outlet if no stack exists, which collects emissions from such Kiln in accordance with the requirements of 40 C.F.R. Part 60.

27. Except during CEMS breakdowns, repairs, calibration checks, zero span adjustments, and any stack repairs that require the removal and recalibration of the CEMS, the CEMS required pursuant to Paragraph 26 shall be operated at all times during Kiln Operation. Each such CEMS shall be used at [Evansville Kiln 1 and Evansville Kiln 2] to demonstrate compliance with the SO2 Emission Limits established in Sections VI.A and B (SO2 Control Technology and Emission Limits) of this [permit condition].

28. Each SO2 CEMS required pursuant to Paragraph 26 shall monitor and record the applicable SO2 emission rate from [Evansville Kiln 1 and Evansville Kiln 2] stack in units of ppm, lbs of SO2 per hour, and lbs of SO2 per Ton of clinker produced at such Kiln and shall be installed, certified, calibrated, maintained, and operated in accordance with the applicable requirements of 40 C.F.R. Part 60.

29. For purposes of this [permit condition], all emissions of SO2 from [Evansville Kiln 1 and Evansville Kiln 2] shall be measured by CEMS.

30. During any time when the CEMS is inoperable or otherwise not measuring emissions of SO2 from any Kiln, the [Permittee] shall apply the missing data substitution procedures used by [Pennsylvania] or the missing data substitution procedures in 40 C.F.R. Part 75, Subpart D.

**VIII. TEMPORARY CESSATION OF KILN OPERATION**

39. [If the Permittee] Temporarily Ceases Kiln Operation for 24 consecutive months subsequent to the Effective Date of [the] Consent Decree, then prior to recommencing Kiln Operation at [Evansville Kiln 1 and Evansville Kiln 2], the [Permittee] shall first apply for and obtain applicable permits required under: (1) the PSD provisions of the Act, 42 U.S.C. §§ 7470-7492 and/or the Non-attainment NSR provisions of the Act, 42 U.S.C. §§ 7501-7515; or (2) the federally-approved and enforceable SIPs that incorporate and/or implement the federal PSD and/or Non-attainment NSR requirements, as applicable.

**IX. PROHIBITION ON NETTING CREDITS OR OFFSETS FROM REQUIRED CONTROLS**

40. Prohibition. [The Permittee] shall neither generate nor use any [Consent Decree] CD Emissions Reductions: as netting reductions; as emissions offsets; or to apply for, obtain, trade, or sell any emission reduction credits. Baseline actual emissions for each unit during any 24-month period selected by [the Permittee] shall be adjusted downward to exclude any portion of the baseline emissions that would have been eliminated as CD Emissions Reductions had [the Permittee] been complying with [the] Consent Decree [or this permit condition] during that 24-month period. Any plant-wide applicability limits ("PALs") or PAL-like limits that apply to emissions units addressed by [the] Consent Decree [or this permit condition] must be adjusted downward to exclude any portion of the baseline emissions used in establishing such limit(s) that would have been eliminated as CD Emissions Reductions had the [Permittee] been complying with [the] Consent Decree [or this permit condition] during such baseline period.

41. Outside the Scope of the Prohibition. Nothing in this Section IX is intended to prohibit [the Permittee] from seeking to:



**SECTION E. Source Group Restrictions.**

- a. Use or generate emission reductions from emissions units that are covered by [the] Consent Decree [or this permit condition] to the extent that the proposed emission reductions represent the difference between CD Emissions Reductions and more stringent control requirements that the [Permittee] may elect to accept for those emissions units in a permitting process;
- b. Use or generate emission reductions from emissions units that are not subject to an emission limitation or control requirement pursuant to [the] Consent Decree [or this permit condition]; or
- c. Use CD Emissions Reductions for compliance with any rules or regulations designed to address regional haze or the non-attainment status of any area (excluding PSD and non-attainment NSR rules, but including, for example, Reasonably Available Control Technology (RACT) rules) that apply to the Facility; provided, however, that the [Permittee] shall not be allowed to trade or sell any CD Emissions Reductions.

\*\*\* **Permit Shield in Effect.** \*\*\*



**SECTION F. Alternative Operation Requirements.**

No Alternative Operations exist for this Title V facility.



**SECTION G. Emission Restriction Summary.**

No emission restrictions listed in this section of the permit.

**SECTION H. Miscellaneous.**

# 001

This permit supersedes Title V Operating Permit No. 06-05002, issued on 10/26/20.

# 002

There are no applicable emission, testing, monitoring, record keeping, or reporting requirements for the following sources:

- (a) Water treatment tower
- (b) Miscellaneous combustion sources including, but not limited to the following:
  - (1) four (4) welding units
  - (2) four (4) electric water pumps
  - (3) three (3) 6 kW gas fired Kubota ARX5500-B-USA generators
  - (4) portable kerosene ProTemp Heaters
  - (5) portable propane heaters

#003

The fuel "Special A" as used in the cement kilns (sources 121 and 122) is any Waste Derived Solid Fuel (WDSF) approved by the Department. This currently includes only whole tires and waste wood.

#004

The fuel "Reclaim Oil" as used in the raw mills heaters and cement kilns (sources 109, 110, 112, 121 and 122) is any Waste Derived Liquid Fuel (WDLF) approved by the Department. It is also known as Spec 4 Oil.

#005

The fuel "Bituminous Coal" as used in the kilns (sources 121 and 122) is bituminous coal, but various amounts of petroleum coke are also included in the fuel to improve the quality of the fuel at times. The coal/coke mixture shall be considered one fuel.

#006

The term "clinker" as used in the material processed in the finish mills (sources 159, 160 and 162) refers to the following items:

- (a) Cement clinker
- (b) Calcium sulfate
- (c) Stone
- (d) Mineral admixtures
- (e) Grinding aids

#007

The source 200 (Raw Material Handling) includes the following sources:

- (a) 103 Limestone Crushing & Screening
- (b) 105 Rock Silo West
- (c) 106 Rock Silo East
- (d) 107 Raw Mills 1 & 2, Belts 1 and 2
- (e) Raw Mills 1 & 2, Belt 3
- (f) Raw Mills 1 & 2, Feed Bin
- (g) 108 Raw Mill 3, Belts 1 and 2
- (h) Raw Mill 3, Belt 3
- (i) Raw Mills 3, Feed Bin
- (j) 201 Two Limestone unloading Sites
- (k) 202 Iron Ore Unloading Site and Storage
- (l) 203 Limestone Storage (outside) and Reclaim
- (m) 204 Associated Conveying and Feed Systems for Limestone and Other Raw Materials
- (n) 205 Other Raw Material Unloading Site
- (o) 206 Other Raw Material Storage
- (p) Storage Piles
- (q) Fugitive Sources Z04, Z05, Z06, Z07, Z08, Z09

#008

The source 210 (Kiln Feed) includes the following sources:

**SECTION H. Miscellaneous.**

- (a) 113 Kiln Feed Blending #1
- (b) 114 Kiln Feed Blending #2
- (c) 115 Kiln Feed Silos 1 & 3
- (d) 116 Kiln Feed Silos 2 & 4
- (e) 117 Kiln Feed Pumps 1 through 3 DC5
- (f) 119 Kiln Feed Conveying (3) #7 (inside)
- (g) 120 Kiln Feed Conveying (3) #8 (inside)

#009

The source 220 (Clinker Handling and Storage) includes the following sources:

- (a) 301 Clinker Handling Apron Conveyor (C301/S301)
- (b) 302 Clinker Handling Apron Conveyor & Silo (C302/S302)
- (c) 303 Silo Distribution (C303/S303)
- (d) 306 Clinker Handling from Bulk Storage A
- (e) 304 Clinker Handling from Bulk Storage B (C304/S304)
- (f) 305 Additive Distribution C305/S305)
- (g) 307 Clinker Handling to Bulk Storage
- (h) 172 Clinker Handling Silo Withdrawal G10A
- (i) 280 Outdoor Clinker Handling & Storage

#010

The source 230 (Cement Storage) includes the following sources:

- (a) 164 Cement Storage Silos 14 through 21
- (b) 165 Cement Storage Silos 22 through 32
- (c) 166 Cement Storage Silos 33 through 43

#011

The source 240 (Cement Bulk Loading) includes the following sources:

- (a) 144 Bulk Loading Scale 1
- (b) 145 Bulk Loading Scale 2
- (c) 170 Bulk Loading Scale 4

#012

The source 250 (Cement Packaging Plant) includes the following sources:

- (a) 173 Cement Packaging System C
- (b) 174 Cement Packaging System A
- (c) 175 Cement Packaging System B

#013

The source 177 (Raw Material Dryer) includes the following sources:

- (a) Raw Material (Slag) Dryer
- (b) Bucket Elevator
- (c) Various Conveyors
- (d) Slag Pile

#014

The source 179 (Plant Roadways) includes the following sources:

- (a) V500 Bulk Cement Export
- (b) V501 Bag Cement Export
- (c) V502 Coal
- (d) V503 Supplemental Material
- (e) V504 Tires
- (f) V505 Clinker Import

**SECTION H. Miscellaneous.**

- (g) V506 Limestone
- (h) V507 Natural Gypsum
- (i) V508 Slag
- (j) V509 Synthetic Gypsum
- (k) V510 Iron Ore
- (l) V511 Primary Quarry Road

#015

The source 180 (Raw Material Transfer) includes the following sources used to unload and transfer various raw materials (slag, gypsum, ect.):

- (a) Unloading Hopper
- (b) Vibratory Feeder
- (c) Two Bucket Elevators
- (d) Belt Conveyors
- (e) Fugitive Source Z180

#016

The source 181 (Synthetic Gypsum) includes the following sources:

- (a) Unloading Hopper
- (b) Various Conveyors
- (c) Fugitive Sources Z18, Z19, Z22, Z23, Z24

#017

The Source 182 (Coal System) includes the following sources:

- (a) Coal Unloading
- (b) Covered Coal Storage
- (c) Coal Screen & Crusher
- (d) Two Coal Mills
- (e) Two Coal Bins & Weigh Feeders
- (f) Various Coal Conveyors
- (g) Fugitive Sources Z11, Z12, Z15

#018

The source 183 (Tire Handling System) includes the following sources:

- (a) Tire Unloading Site
- (b) Tire Singulator
- (c) Tire Conveying System
- (d) Tire Injection System

#019

The capacities and throughputs listed in the Site Inventory List in Section A and Headers of the sources in Section D, are for information only and are not operating limits unless there are specific conditions within the permit that sets limits on a source.

#020

Revised PAL levels shall be adjusted in the following manner:

(a) Pound of pollutant per ton of clinker emission factors shall be derived from emission limits obtained from new applicable regulations that become effective during the term of the permit for each affected emission unit.

(b) The derived emission factors will be multiplied by the baseline actual ton of clinker produced per year production rates to establish adjusted baseline actual emissions.

- (1) Baseline for #1 Kiln - 519,354 tons clinker
- (2) Baseline for #2 Kiln - 488,766 tons clinker

**SECTION H. Miscellaneous.**

(c) The appropriate NSR significance threshold will then be added to the adjusted baseline actual emissions to establish an adjusted PAL level for each regulated NSR pollutant.

#021

Control Ids C125A & C126A consist of the following:

- A dust transport system,
- A 200 ton shuttled dust storage silo controlled by a 5,500 acfm bin vent filter,
- A dust dosing system,
- Miscellaneous rotary feeders & screw conveyors,
- A hopper at each kiln dust bin,
- A 66 ton activated carbon storage silo controlled by a 1,500 acfm bin vent filter,
- A silo aeration system,
- Gravimetric dosing systems,
- Miscellaneous piping, mechanical, and electrical components.

#022

RACT II exempt sources. The following sources are exempt from RACT II requirements in 25 Pa. Code 129.96-100 in accordance with 25 Pa Code 129.96(c) since their potential to emit is less than 1 tpy of both NO<sub>x</sub> and VOC.

- Emergency Fire Pump (Source ID 176);
- Auxiliary Kiln Drive (Source ID 420);
- Wash House Boiler (Source ID 440);
- Portable kerosene ProTemp Heaters (Section H, #002(b)(4)); and
- Portable propane heaters (Section H, #002(b)(5))

#023

This is Revision No.1 of the facility's Title V Operating Permit issued on 10/26/20. This revision incorporates the requirements and emission limits specified in U.S. EPA Consent Decree No. 5:19-cv-05688.



\*\*\*\*\* End of Report \*\*\*\*\*

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