



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

October 27, 2005

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

Mr. Edward Epping
Lehigh Cement Company
121 North First Street
Mitchell, Indiana 47446

Re: 093-21778-00002
First Minor Source Modification to
Part 70 No.: T093- 5990-00002

Dear Mr. Epping:

Lehigh Cement Company, located at 121 North First Street, Mitchell, Indiana 47446 was issued a Part 70 permit on December 30, 2002 for a portland cement manufacturing plant. A letter requesting changes to this permit was received on September 16, 2005. Pursuant to the provisions of 326 IAC 2-7-12 a minor permit modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the addition of the following:

Kiln #1 and Kiln #2 Alternative Fuel Storage and Delivery Systems as follows:

One (1) alternative fuel delivery system to convey clean wood fuel to Kiln #1, identified as F-19, consisting of a partially enclosed hopper and a series of totally enclosed conveyors, with a nominal throughput of 87,600 tons per year, exhausting to the atmosphere.

One (1) alternative fuel delivery system to convey clean wood fuel to Kiln #2, identified as F-20, consisting of a partially enclosed hopper and a series of totally enclosed conveyors, with a nominal throughput of 87,600 tons per year, exhausting to the atmosphere.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.



This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Walter Habeeb OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204, or call at (800) 451-6027, press 0 and ask for Walter Habeeb or extension (2-8422), or dial (317) 232-8422.

Sincerely,
Original signed by
Nisha Sizemore for

Paul Dubenetzky,
Assistant Commissioner
Office of Air Quality

Attachments

WH

cc: File - Lawrence County
U.S. EPA, Region V
Lawrence County Health Department



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PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

**Lehigh Cement Company
121 North First Street
Mitchell, Indiana 47446**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T093-5990-00002	
Original issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: December 30, 2002 Expiration Date: December 30, 2007

First Significant Permit Modification No. 093-16851-00002, issued on July 11, 2003
 Second Significant Permit Modification No.: 093-18649-00002, issued on November 5, 2004
 First Administrative Amendment No.: 093-20912-00002, issued on April 8, 2005
 Second Administrative Amendment No.: 093-21136-00002, issued on April 26, 2005

First Minor Source Modification No.: 093-21778-00002	Conditions Affected: Facility Descriptions A.2(ccc) and A.2(ddd) , Conditions D.2.2, D.2.3, D.2.9, D.2.11, D.4.2 and the D.2 and D.4 description boxes have been modified; D.4.2 in the Table of Contents, Facility Descriptions A.2(u.1) and A.2(u.2) , and Condition D.2.9(c) has been added.
Original signed by Nisha Sizemore : for Paul Dubenetzky, Assistant Commissioner Office of Air Quality	Issuance Date: October 27, 2005

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The raw material handling and storage facilities/emissions units, as follows:

- (p) A conveying system to transport raw material to storage, identified as EU09, constructed in 1960, with a nominal rate of 200 tons per hour, with PM emissions controlled by one (1) baghouse, identified as RMDC1, and exhausting to one (1) stack, identified as S-RMDC1.
- (q) One (1) shale crusher, identified as EU10, constructed in 1961, with a nominal rate of 200 tons per hour, with PM emissions controlled by one (1) baghouse, identified as RMDC2, and exhausting to one (1) stack, identified as S-RMDC2.
- (r) One (1) material storage building, identified as F03, constructed in 1959-1960, with fugitive emissions from various conveyors and storage piles controlled by partial enclosure and exhausting directly to the atmosphere.
- (s) One (1) coal unloading building, identified as F08, constructed in 1960, with particulate matter emissions controlled by partial enclosure and exhausting directly to the atmosphere.
- (t) One (1) coal pile, identified as F04, storage commencing prior to 1971, with particulate matter emissions uncontrolled, and exhausting directly to the atmosphere.
- (u) Raw material stockpiles collectively, identified as F09, storage commencing prior to 1971, used for temporary storage of various feed materials, including gypsum, foundry sand, mill scale, and slag, with particulate matter emissions uncontrolled, and exhausting to the atmosphere.

Kiln #1 and Kiln #2 Alternate Fuel Storage and Delivery Systems as follows:

- (u.1) One (1) alternative fuel delivery system to convey clean wood fuel to Kiln #1, identified as F-19, consisting of a partially enclosed hopper and a series of totally enclosed conveyors, with a nominal throughput of 87,600 tons per year, exhausting to the atmosphere.
- (u.2) One (1) alternative fuel delivery system to convey clean wood fuel to Kiln #2, identified as F-20, consisting of a partially enclosed hopper and a series of totally enclosed conveyors, with a nominal throughput of 87,600 tons per year, exhausting to the atmosphere.

The kiln facilities/emissions units, as follows:

- (ccc) One (1) kiln #1, identified as EU15, constructed in 1959 as a long dry kiln and modified to a one-stage preheater kiln in July 2003, with a heat input rate of 118 million Btu per hour, with a nominal production rate of 38 tons per hour, with PM emissions controlled by one (1) electrostatic precipitator (ESP), identified as KP1, and dioxins/ furans controlled and SO₂ partially controlled by a Water Spray Tower, and exhausting to one (1) stack, identified as S-KP1. Kiln #1 is also permitted to use a blended fuel of coal and pressed paper making waste where the blend has a maximum of 20% pressed paper making waste by heat input.

Kiln #1 is permitted to use a blended fuel of coal and clean wood where the blend has a maximum of up to 35% clean wood by heat input.

- (ddd) One (1) kiln #2, identified as EU16, constructed in 1959 as a long dry kiln and modified to a one-stage preheater kiln in July 2003, with a heat input rate of 118 million Btu per hour, with a nominal production rate of 38 tons per hour, with PM emissions controlled by one (1) electrostatic precipitator (ESP), identified as KP2, and dioxins/ furans controlled and SO₂ partially controlled by a Water Spray Tower, and exhausting to one (1) stack, identified as S-KP1. Kiln #2 is also permitted to use a blended fuel of coal and pressed paper making waste where the blend has a maximum of 20% pressed paper making waste by heat input.

Kiln #2 is permitted to use a blended fuel of coal and clean wood where the blend has a maximum of up to 35% clean wood by heat input.

- (eee) One (1) kiln #3, identified as EU17, constructed in 1974 as a one-stage preheater kiln, with a heat input rate of 118 million Btu per hour, with a nominal production rate of 43 tons per hour, with PM emissions controlled by one (1) electrostatic precipitator (ESP), identified as KP3, and exhausting to one (1) stack, identified as S-KP2. Kiln #3 is also permitted to use a blended fuel of coal and pressed paper making waste where the blend has a maximum of 20% pressed paper making waste by heat input.

SECTION D.2 FACILITY/EMISSION UNIT OPERATION CONDITIONS

Facility/Emissions Unit Description [326 IAC 2-7-5(15)]

The raw material handling and storage facilities/emissions units, as follows:

- (1) A conveying system to transport raw material to storage, identified as EU09, constructed in 1960, with a nominal rate of 200 tons per hour, with PM emissions controlled by one (1) baghouse, identified as RMDC1 and exhausting to one (1) stack, identified as S-RMDC1.
- (2) One (1) shale crusher, identified as EU10, constructed in 1961, with a nominal rate of 200 tons per hour, with PM emissions controlled by one (1) baghouse, identified as RMDC2, and exhausting to one (1) stack, identified as S-RMDC2.
- (3) One (1) material storage building, identified as F03, constructed in 1959-1960, with fugitive emissions from various conveyors and storage piles controlled by partial enclosure and exhausting directly to the atmosphere.
- (4) One (1) coal unloading building, identified as F08, constructed in 1960, with particulate matter emissions controlled by partial enclosure and exhausting directly to the atmosphere.
- (5) One (1) coal pile, identified as F04, constructed prior to 1971, with particulate matter emissions uncontrolled, and exhausting directly to the atmosphere.
- (6) Raw material stockpiles collectively, identified as F09, storage commencing prior to 1971, used for temporary storage of various feed materials, including gypsum, foundry sand, mill scale, and slag, with particulate matter emissions uncontrolled, and exhausting to the atmosphere.

Kiln #1 and Kiln #2 Alternative Fuel Delivery Systems as follows:

- (1) One (1) alternative fuel delivery system to convey clean wood fuel to Kiln #1, identified as F-19, consisting of a partially enclosed hopper and a series of totally enclosed conveyors, with a nominal throughput of 87,600 tons per year, exhausting to the atmosphere.
- (2) One (1) alternative fuel delivery system to convey clean wood fuel to Kiln #2, identified as F-20, consisting of a partially enclosed hopper and a series of totally enclosed conveyors, with a nominal throughput of 87,600 tons per year, exhausting to the atmosphere.

The raw mill facilities/emissions units, as follows:

- (1) One (1) raw mill #1, identified as EU11, constructed in 1961, with a nominal rate of 100 tons per hour and including a natural gas-fired burner, identified as EU11A, with a maximum heat input capacity of 20 million British thermal units (MMBtu) per hour, with PM emissions controlled by one (1) baghouse, identified as RMDC3, and exhausting to one (1) stack, identified as S-RMDC3.
- (2) One (1) raw mill #2, identified as EU12, constructed in 1961, with a nominal rate of 100 tons per hour and including a natural gas-fired burner, identified as EU12A, with a maximum heat input capacity of 20 million British thermal units (MMBtu) per hour, with PM emissions controlled by one (1) baghouse, identified as RMDC4, and exhausting to one (1) stack, identified as S-RMDC4.

Insignificant Activities, as follows:

- (1) Three (3) coal mills, with nominal rates of 5, 6, and 6 tons per hour, with particulate matter emissions controlled by total enclosure, and exhausting to the kilns.
- (2) One coal feeder conveyor and one coal unloading conveyor, with nominal rates of 250 tons per hour and 260 tons per hour, respectively, constructed prior to August 17, 1971, with particulate matter emissions controlled by total enclosure.

(The information describing the processes contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Particulate [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2 (Particulate), the allowable particulate emission rate from the raw material conveying system (EU09) shall not exceed 58.5 pounds per hour when operating at a process weight rate of 200 tons per hour.
- (b) Pursuant to 326 IAC 6-3-2 (Particulate), the allowable particulate emission rate from the shale crusher (EU10) shall not exceed 58.5 pounds per hour when operating at a process weight rate of 200 tons per hour.
- (c) Pursuant to 326 IAC 6-3-2 (Particulate), the allowable particulate emission rate from the raw mill #1 (EU11 and EU11A) shall not exceed 51.3 pounds per hour when operating at a process weight rate of 100 tons per hour.
- (d) Pursuant to 326 IAC 6-3-2 (Particulate), the allowable particulate emission rate from the raw mill #2 (EU12 and EU12A) shall not exceed 51.3 pounds per hour when operating at a process weight rate of 100 tons per hour.
- (e) Pursuant to 326 IAC 6-3-2 (Particulate), the allowable particulate matter (PM) rate from the material storage hopper, and each conveyor transfer point associated with the Kiln #1 alternative fuel delivery systems (F19), shall not exceed 19.2 pounds per hour when operating at a process weight rate of 10 tons per hour.
- (f) Pursuant to 326 IAC 6-3-2 (Particulate), the allowable particulate matter (PM) rate from the material storage hopper, and each conveyor transfer point associated with the Kiln #2 alternative fuel delivery systems (F20), shall not exceed 19.2 pounds per hour.

hour when operating at a process weight rate of 10 tons per hour.

The pounds per hour limitations were calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.2.2 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]

On and after June 14, 2002, the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the material storage building (F03), the raw mills (EU11, EU11A, EU12 and EU12A) and each conveyor transfer point associated with the Kiln #1 and Kiln #2 alternative fuel delivery systems (F19 and F20), described in this section except when otherwise specified in 40 CFR Part 63, Subpart LLL.

D.2.3 NESHAP Emissions Limitation [40 CFR 63, Subpart LLL]

Pursuant to 40 CFR 63.1348 (Emissions Standards and Operating Limits), on and after June 14, 2002, which is the compliance date for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Portland Cement Manufacturing Industry, the visible emissions from the material storage building (F03), each of the raw mills (EU11, EU11A, EU12 and EU12A) and each conveyor transfer point associated with the Kiln #1 and Kiln #2 alternative fuel delivery systems (F19 and F20) shall each not exceed ten percent (10%) opacity.

Compliance Determination Requirements

D.2.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [40 CFR 63, Subpart LLL]

- (a) Within 180 days after June 14, 2002, which is the compliance date for the Portland Cement Manufacturing Industry NESHAP, the Permittee shall demonstrate initial compliance with the limit established in Condition D.2.3 by conducting a test in accordance with 40 CFR 63.1349 and Method 9 of 40 CFR Part 60, Appendix A. Testing shall be conducted in accordance with Section C - Performance Testing.
- (b) Within 180 days after issuance of this Part 70 permit, in order to demonstrate with Condition D.2.1, the Permittee shall perform PM testing on the Raw Mills (EU11, EU11A, EU11B, EU12, EU12A, and EU12B) utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing. All associated facilities exhausting to a single stack must all be operating when determining compliance with the limit.
- (c) Within 180 days after start up of each of the alternative fuel delivery systems (F19 and F20), the Permittee shall demonstrate initial compliance with the limit established in Condition D.2.3 by conducting a test in accordance with 40 CFR 63.1349 and Method 9 of 40 CFR Part 60, Appendix A. Testing shall be conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.11 NESHAP Monitoring Requirements [40 CFR 63, Subpart LLL]

- (a) Pursuant to 40 CFR 63.1350 (Monitoring Requirements), the Permittee shall prepare a written operations and maintenance plan for the material storage building (F03) and each of the raw mills (EU11, EU11A, EU12 and EU12A) by June 14, 2002, which is the compliance date for the National Emission Standards for Hazardous Air Pollutants (NESHAP) from the Portland Cement Manufacturing Industry; and for the conveyor transfer points associated with the Kiln #1 alternative fuel delivery system (F19) and the conveyor transfer points associated with the Kiln #2 alternative fuel delivery system (F20), upon startup of operations.

The plan shall include the following information:

- (1) Procedures for proper operation and maintenance of the affected sources and associated air pollution control device(s) in order to meet the emissions limit in Condition D.2.3; and
- (2) Procedures to be used to periodically monitor the material storage building (F03) and the conveyor transfer point associated with the Kiln #1 and Kiln #2 alternative fuel delivery systems (F19 and F20), which is subject to opacity standards under 40 CFR 63.1348. Such procedures must include the following provisions:
 - (A) The Permittee shall conduct a monthly 1-minute visible emissions test of each affected source in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the affected source is in operation.
 - (B) If no visible emissions are observed in six consecutive monthly tests for any affected source, the Permittee may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the Permittee shall resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
 - (C) If no visible emissions are observed during the semi-annual test for any affected source, the Permittee may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, the Permittee shall resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
 - (D) If visible emissions are observed during any Method 22 test, the Permittee must conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 test must begin within one hour of any observation of visible emissions.
- (3) Corrective actions to be taken when required by paragraph (b).

Failure to comply with any provision of the operations and maintenance plan shall be a violation of the standard. The contents of the operations and maintenance plan are not included in this permit and may be modified by the Permittee without modification or amendment of this permit.

- (b) Pursuant to 40 CFR 63.1350 (Monitoring Requirements), on and after June 14, 2002, the Permittee shall monitor opacity from the raw mills (EU11, EU11A, EU12 and EU12A) by conducting daily visual emissions observations of the mill sweep and air separator particulate matter control devices (PMCDs), in accordance with the procedures of 40 CFR 60, Appendix A, Method 22.

The Method 22 test shall be conducted while the affected source is operating at representative performance conditions. The duration of the Method 22 test shall be six minutes. If visible emissions are observed during any Method 22 visible emissions test, the Permittee must:

Initiate, within one (1) hour, the corrective actions specified in the site specific operations and maintenance plan developed in accordance with 40 CFR §§ 63.1350(a)(1) and (a)(2).

Within twenty-four (24) hours of the end of the Method 22 test in which visible emissions were observed, conduct a follow-up Method 22 test of each stack from which visible emissions were observed during the previous Method 22 test. If visible emissions are observed during the follow-up Method 22 test from any stack from which visible emissions were observed during the previous Method 22 test, conduct a visual opacity test of each stack from which visible emissions were observed during the follow-up Method 22 test in accordance with 40 CFR Part 60, Appendix A, Method 9. The duration of the Method 9 test shall be thirty minutes.

SECTION D.4 FACILITY/EMISSION UNIT OPERATION CONDITIONS

Facility/Emissions Unit Description [326 IAC 2-7-5(15)]

- (1) One (1) kiln #1, identified as EU15, constructed in 1959 as a long dry kiln and modified to a one-stage preheater kiln in July 2003, with a heat input rate of 118 million Btu per hour, with a nominal production rate of 38 tons per hour, with PM emissions controlled by one (1) electrostatic precipitator (ESP), identified as KP1, and dioxins/furans controlled and SO₂ partially controlled by a Water Spray Tower, and exhausting to one (1) stack, identified as S-KP1. Kiln #1 is also permitted to use a blended fuel of coal and pressed paper making waste where the blend has a maximum of 20% pressed paper making waste by heat input.

Kiln #1 is permitted to use a blended fuel of coal and clean wood where the blend has a maximum of up to 35% clean wood by heat input.

- (2) One (1) kiln #2, identified as EU16, constructed in 1959 as a long dry kiln and modified to a one-stage preheater kiln in July 2003, with a heat input rate of 118 million Btu per hour, with a nominal production rate of 38 tons per hour, with PM emissions controlled by one (1) electrostatic precipitator (ESP), identified as KP2, and dioxins/furans controlled and SO₂ partially controlled by a Water Spray Tower, and exhausting to one (1) stack, identified as S-KP1. Kiln #2 is also permitted to use a blended fuel of coal and pressed paper making waste where the blend has a maximum of 20% pressed paper making waste by heat input.

Kiln #2 is permitted to use a blended fuel of coal and clean wood where the blend has a maximum of up to 35% clean wood by heat input.

- (3) One (1) kiln #3, identified as EU17, constructed in 1974 as a one-stage preheater kiln, with a heat input rate of 118 million Btu per hour, with a nominal production rate of 43 tons per hour, with PM emissions controlled by one (1) electrostatic precipitator (ESP), identified as KP3, and exhausting to one (1) stack, identified as S-KP2. Kiln #3 is also permitted to use a blended fuel of coal and pressed paper making waste where the blend has a maximum of 20% pressed paper making waste by heat input.

(The information describing the processes contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 Kiln #1 and Kiln #2 Partial Fuel Switch [326 IAC 2-2-2(d)(4)]

Pursuant to 326 IAC 2-2-2(d)(4), Kiln #1 and Kiln #2 are permitted to burn a blended fuel of coal and clean wood where the blend has a maximum of up to 35% clean wood by heat input.

D.4.2 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations) the SO₂ emissions from the combustion of coal in each of the kilns shall not exceed six (6.0) pounds per MMBtu heat input each. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a monthly average. 326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.

**Indiana Department of Environmental Management
Office of Air Quality**

Technical Support Document (TSD) for a
Part 70 Minor Source Modification

Source Background and Description

Source Name:	Lehigh Portland Cement Company
Source Location:	121 North First Street, Mitchell, Indiana 47446
County:	Lawrence
SIC Code:	3241
Operation Permit No.:	T093-5990-00002
Operation Permit Issuance Date:	December 30, 2002
Minor Source Modification No.:	093-21778-00002
Minor Permit Modification No.:	093-21919-00002
Permit Reviewer:	Walter Habeeb

History

On September 14, 2005, Lehigh Portland Cement Company submitted an application to the OAQ requesting to add the ability to burn clean wood in Kiln # 1 and Kiln # 2 and to add an alternate fuel storage and conveyor delivery system for Kiln #1(F19) and an alternate fuel storage and conveyor delivery system for Kiln #2 (F20) for delivery of this wood to each Kiln. Lehigh Portland Cement Company was issued a Part 70 permit on December 30, 2002 along with the following amendments and revisions:

- a) Second Administrative Amendment 093-21136-00002, issued April 26, 2005.
- b) First Administrative Amendment 093-20912-00002, issued April 8, 2005.
- c) First Exemption 093-20115-00002, issued March 11, 2005.
- d) Second Significant Modification 093-19158-00002, issued November 5, 2004.
- e) Second Significant Permit Modification 093-18649-00002, issued November 5, 2004.
- f) First Significant Permit Modification 093-16851-00002, issued July 11, 2003.
- g) First Significant Modification 093-15822-00002, issued June 24, 2003.

Enforcement Issue

There are no pending enforcement actions related to this modification.

Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

Applications for the purposes of this review were received on September 14, 2005.

Emission Calculations

See Appendix A of this document for detailed emissions calculations.

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/yr)
PM	0.50
PM-10	1.06
SO ₂	0.00
VOC	0.00
CO	0.00
NO _x	0.00

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Minor Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(a)(1) source modification procedures that are not required by the Part 70 program to be processed as a significant modification.

County Attainment Status

The source is located in Lawrence County.

Pollutant	Status
PM 10	Attainment
PM 2.5	Attainment
SO ₂	Attainment
NO _x	Attainment
1 Hour Ozone	Attainment
8 Hour Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Lawrence County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) Lawrence County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (c) Fugitive Emissions
 Since this type of operation is one of the 28 listed source categories under 326 IAC 2-2, the fugitive PM emissions are counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	greater than 100
PM-10	greater than 100
SO ₂	greater than 100
VOC	less than 100
CO	greater than 100
NO _x	greater than 100

- (a) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the 28 listed source categories.
- (b) These emissions are based upon Title V TSD calculations.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Kiln 1 & 2 Burning (65% Coal with 35% clean wood)	1.06	0.50	0.00	0.00	0.00	0.00	0.00
Net Emissions Increase	1.06	0.50	0.00	0.00	0.00	0.00	0.00
PSD Threshold Level	25	15	40	40	100	40	---

This modification to an existing major stationary source is not major because the emissions increase as determined by the source using past actual to future projected actual analysis were shown to not cause a significant emission increase. Therefore, pursuant to 326 IAC 2-2-2 (d)(1), this NSR project is processed as a minor permit modification.

Federal Rule Applicability

- (a) On and after June 14, 2002, the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the material storage hopper, and each conveyor transfer point associated with the Kiln #1 and Kiln #2 alternative fuel delivery systems (F19 and F20) described in this section except when otherwise specified in 40 CFR Part 63, Subpart LLL.
- (b) Pursuant to 40 CFR 63.1340 (b)(6 & 7) Subpart LLL, (Applicability and Designation of Affected Sources), each material transfer point is subject to the rules of this section.
- (c) Pursuant to 40 CFR 63.1348 Subpart LLL, (Emissions Standards and Operating Limits), on and after June 14, 2002, which is the compliance date for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Portland Cement Manufacturing Industry, the visible emissions from each conveyor transfer point associated with the Kiln #1 and Kiln #2 alternative fuel delivery systems (F19 and F20) shall each not exceed ten percent (10%) opacity.

State Rule Applicability - Individual Facilities

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of VOC. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year).

326 IAC 4-1 (Open Burning)

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in the permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Process)

Pursuant to 326 IAC 6-3-2 (Particulate), the particulate matter (PM) from the material storage hopper, and each conveyor transfer point associated with the Kiln #1 and Kiln #2 alternative fuel delivery systems (F19 and F20), shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Pursuant to 40 CFR 63.1350 (Monitoring Requirements), the Permittee shall prepare a written operations and maintenance plan for the material storage hoppers and for the conveyor transfer points associated with the Kiln #1 alternate fuel delivery system (F19) and the conveyor transfer points associated with the Kiln #2 alternate fuel delivery system (F20), upon startup of operations, by June 14, 2002, which is the compliance date for the National Emission Standards for Hazardous Air Pollutants (NESHAP) from the Portland Cement Manufacturing Industry I

Part 70 Permit Changes

- (1) Section A.2 of the Part 70 Permit Part 70 Operating Permit 093-5990-00002, issued on December 30, 2002 has been revised to include in the permit the burning of alternate fuels in Kiln #1 and #2 and the use of alternative fuel delivery systems to the list of emissions units (any changes are shown in **bold** or ~~strikeout~~ fonts for emphasis):

The raw material handling and storage facilities/emissions units, as follows:

- (p) A conveying system to transport raw material to storage, identified as EU09, constructed in 1960, with a nominal rate of 200 tons per hour, with PM emissions controlled by one (1) baghouse, identified as RMDC1, and exhausting to one (1) stack, identified as S-RMDC1.
- (q) One (1) shale crusher, identified as EU10, constructed in 1961, with a nominal rate of 200 tons per hour, with PM emissions controlled by one (1) baghouse, identified as RMDC2, and exhausting to one (1) stack, identified as S-RMDC2.
- (r) One (1) material storage building, identified as F03, constructed in 1959-1960, with fugitive emissions from various conveyors and storage piles controlled by partial enclosure and exhausting directly to the atmosphere.

- (s) One (1) coal unloading building, identified as F08, constructed in 1960, with particulate matter emissions controlled by partial enclosure and exhausting directly to the atmosphere.
- (t) One (1) coal pile, identified as F04, storage commencing prior to 1971, with particulate matter emissions uncontrolled, and exhausting directly to the atmosphere.
- (u) Raw material stockpiles collectively, identified as F09, storage commencing prior to 1971, used for temporary storage of various feed materials, including gypsum, foundry sand, mill scale, and slag, with particulate matter emissions uncontrolled, and exhausting to the atmosphere.

Kiln #1 and Kiln #2 Alternative Fuel Delivery Systems as follows:

- (u.1) One (1) alternative fuel delivery system to convey clean wood fuel to Kiln #1, identified as F-19, consisting of a partially enclosed hopper and a series of totally enclosed conveyors, with a nominal throughput of 87,600 tons per year, exhausting to the atmosphere.**
- (u.2) One (1) alternative fuel delivery system to convey clean wood fuel to Kiln #2, identified as F-20, consisting of a partially enclosed hopper and a series of totally enclosed conveyors, with a nominal throughput of 87,600 tons per year, exhausting to the atmosphere.**

The kiln facilities/emissions units, as follows:

- (ccc) One (1) kiln #1, identified as EU15, constructed in 1959 as a long dry kiln and modified to a one-stage preheater kiln in July 2003, with a heat input rate of 118 million Btu per hour, with a nominal production rate of 38 tons per hour, with PM emissions controlled by one (1) electrostatic precipitator (ESP), identified as KP1, and dioxins/ furans controlled and SO₂ partially controlled by a Water Spray Tower, and exhausting to one (1) stack, identified as S-KP1. Kiln #1 is also permitted to use a blended fuel of coal and pressed paper making waste where the blend has a maximum of 20% pressed paper making waste by heat input.

Kiln #1 is permitted to use a blended fuel of coal and clean wood where the blend has a maximum of up to 35% clean wood by heat input.

- (ddd) One (1) kiln #2, identified as EU16, constructed in 1959 as a long dry kiln and modified to a one-stage preheater kiln in July 2003, with a heat input rate of 118 million Btu per hour, with a nominal production rate of 38 tons per hour, with PM emissions controlled by one (1) electrostatic precipitator (ESP), identified as KP2, and dioxins/ furans controlled and SO₂ partially controlled by a Water Spray Tower, and exhausting to one (1) stack, identified as S-KP1. Kiln #2 is also permitted to use a blended fuel of coal and pressed paper making waste where the blend has a maximum of 20% pressed paper making waste by heat input.

Kiln #2 is permitted to use a blended fuel of coal and clean wood where the blend has a maximum of up to 35% clean wood by heat input.

- (eee) One (1) kiln #3, identified as EU17, constructed in 1974 as a one-stage preheater kiln, with a heat input rate of 118 million Btu per hour, with a nominal production rate of 43 tons per hour, with PM emissions controlled by one (1) electrostatic precipitator (ESP), identified as KP3, and exhausting to one (1) stack, identified as S-KP2. Kiln #3 is also permitted to use a blended fuel of coal and pressed paper making waste where the blend has a maximum of 20% pressed paper making waste by heat input.
- (2) Section D.2 of the Part 70 Operating Permit 093-5990-00002, issued on December 30, 2002 has been revised to incorporate the Kiln #1 and Kiln #2 alternative fuel delivery systems (any changes are shown in **bold** or ~~strikeout~~ fonts for emphasis):

SECTION D.2 FACILITY/EMISSION UNIT OPERATION CONDITIONS

Facility/Emissions Unit Description [326 IAC 2-7-5(15)]

The raw material handling and storage facilities/emissions units, as follows:

- (1) A conveying system to transport raw material to storage, identified as EU09, constructed in 1960, with a nominal rate of 200 tons per hour, with PM emissions controlled by one (1) baghouse, identified as RMDC1 and exhausting to one (1) stack, identified as S-RMDC1.
- (2) One (1) shale crusher, identified as EU10, constructed in 1961, with a nominal rate of 200 tons per hour, with PM emissions controlled by one (1) baghouse, identified as RMDC2, and exhausting to one (1) stack, identified as S-RMDC2.
- (3) One (1) material storage building, identified as F03, constructed in 1959-1960, with fugitive emissions from various conveyors and storage piles controlled by partial enclosure and exhausting directly to the atmosphere.
- (4) One (1) coal unloading building, identified as F08, constructed in 1960, with particulate matter emissions controlled by partial enclosure and exhausting directly to the atmosphere.
- (5) One (1) coal pile, identified as F04, constructed prior to 1971, with particulate matter emissions uncontrolled, and exhausting directly to the atmosphere.
- (6) Raw material stockpiles collectively, identified as F09, storage commencing prior to 1971, used for temporary storage of various feed materials, including gypsum, foundry sand, mill scale, and slag, with particulate matter emissions uncontrolled, and exhausting to the atmosphere.

Kiln #1 and Kiln #2 Alternative Fuel Delivery Systems, as follows:

- (1) **One (1) alternative fuel delivery system to convey clean wood fuel to Kiln #1, identified as F-19, consisting of a partially enclosed hopper and a series of totally enclosed conveyors, with a nominal throughput of 87,600 tons per year, exhausting to the atmosphere.**
- (2) **One (1) alternative fuel delivery system to convey clean wood fuel to Kiln #2, identified as F-20, consisting of a partially enclosed hopper and a series of totally enclosed conveyors, with a nominal throughput of 87,600 tons per year, exhausting to the atmosphere.**

The raw mill facilities/emissions units, as follows:

- (1) One (1) raw mill #1, identified as EU11, constructed in 1961, with a nominal rate of 100 tons per hour and including a natural gas-fired burner, identified as EU11A, with a maximum heat input capacity of 20 million British thermal units (MMBtu) per hour, with PM emissions controlled by one (1) baghouse, identified as RMDC3, and exhausting to one (1) stack, identified as S-RMDC3.
- (2) One (1) raw mill #2, identified as EU12, constructed in 1961, with a nominal rate of 100 tons per hour and including a natural gas-fired burner, identified as EU12A, with a maximum heat input capacity of 20 million British thermal units (MMBtu) per hour, with PM emissions controlled by one (1) baghouse, identified as RMDC4, and exhausting to one (1) stack, identified as S-RMDC4.

Insignificant Activities, as follows:

- (1) Three (3) coal mills, with nominal rates of 5, 6, and 6 tons per hour, with particulate matter emissions controlled by total enclosure, and exhausting to the kilns.
- (2) One coal feeder conveyor and one coal unloading conveyor, with nominal rates of 250 tons per hour and 260 tons per hour, respectively, constructed prior to August 17, 1971, with particulate matter emissions controlled by total enclosure.

(The information describing the processes contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 326 IAC 6-3 (Particulate)

- (e) Pursuant to 326 IAC 6-3-2 (Particulate), the allowable particulate matter (PM) rate from the material storage hopper, and each conveyor transfer point associated with the Kiln #1 alternative fuel delivery systems (F19), shall not exceed 19.2 pounds per hour when operating at a process weight rate of 10 tons per hour.
- (f) Pursuant to 326 IAC 6-3-2 (Particulate), the allowable particulate matter (PM) rate from the material storage hopper, and each conveyor transfer point associated with the Kiln #2 alternative fuel delivery systems (F20), shall not exceed 19.2 pounds per hour when operating at a process weight rate of 10 tons per hour.

D.2.2 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]

On and after June 14, 2002, the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the material storage building (F03), the raw mills (EU11, EU11A, EU12 and EU12A), **one (1) alternative fuel delivery system for Kiln #1, identified as F-19, consisting of a partially enclosed hopper and a series of totally enclosed conveyors and one (1) alternative fuel delivery system for Kiln #2, identified as F-20, consisting of a partially enclosed hopper and a series of totally enclosed conveyors** described in this section except when otherwise specified in 40 CFR Part 63, Subpart LLL.

D.2.3 NESHAP Emissions Limitation [40 CFR 63, Subpart LLL]

Pursuant to 40 CFR 63.1348 (Emissions Standards and Operating Limits), on and after June 14, 2002, which is the compliance date for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Portland Cement Manufacturing Industry, the visible emissions from the material storage building (F03), and each of the raw mills (EU11, EU11A, EU12 and EU12A),

one (1) alternative fuel delivery system for Kiln #1, identified as F-19, consisting of a partially enclosed hopper and a series of totally enclosed conveyors and one (1) alternative fuel delivery system for Kiln #2, identified as F-20, consisting of a partially enclosed hopper and a series of totally enclosed conveyors shall each not exceed ten percent (10%) opacity.

Compliance Determination Requirements

D.2.9 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [40 CFR 63, Subpart LLL]

- (c) **Within 180 days after start up of the alternative fuel delivery systems, the Permittee shall demonstrate initial compliance with the limit established in Condition D.2.3 by conducting a test in accordance with 40 CFR 63.1349 and Method 9 of 40 CFR Part 60, Appendix A. Testing shall be conducted in accordance with Section C - Performance Testing.**

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.11 NESHAP Monitoring Requirements [40 CFR 63, Subpart LLL]

- (a) Pursuant to 40 CFR 63.1350 (Monitoring Requirements), the Permittee shall prepare a written operations and maintenance plan for the material storage building (F03) and each of the raw mills (EU11, EU11A, EU12 and EU12A) by June 14, 2002, which is the compliance date for the National Emission Standards for Hazardous Air Pollutants (NESHAP) from the Portland Cement Manufacturing Industry.

Pursuant to 40 CFR 63.1350 (Monitoring Requirements), the Permittee shall prepare a written operations and maintenance plan for each conveyor transfer point associated with the Kiln #1 and Kiln #2 alternative fuel delivery systems, upon start up.

The plan shall include the following information:

- (1) Procedures for proper operation and maintenance of the affected sources and associated air pollution control device(s) in order to meet the emissions limit in Condition D.2.3; and
- (2) Procedures to be used to periodically monitor the material storage building (F03), which is subject to opacity standards under 40 CFR 63.1348. Such procedures must include the following provisions:
 - (A) The Permittee shall conduct a monthly 1-minute visible emissions test of each affected source in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the affected source is in operation.
 - (B) If no visible emissions are observed in six consecutive monthly tests for any affected source, the Permittee may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the Permittee shall resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
 - (C) If no visible emissions are observed during the semi-annual test for any

affected source, the Permittee may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, the Permittee shall resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

- (D) If visible emissions are observed during any Method 22 test, the Permittee must conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 test must begin within one hour of any observation of visible emissions.

- (3) Corrective actions to be taken when required by paragraph (b).

Failure to comply with any provision of the operations and maintenance plan shall be a violation of the standard. The contents of the operations and maintenance plan are not included in this permit and may be modified by the Permittee without modification or amendment of this permit.

- (b) Pursuant to 40 CFR 63.1350 (Monitoring Requirements), on and after June 14, 2002, the Permittee shall monitor opacity from the raw mills (EU11, EU11A, EU12 and EU12A) by conducting daily visual emissions observations of the mill sweep and air separator particulate matter control devices (PMCDs), in accordance with the procedures of 40 CFR 60, Appendix A, Method 22.

Pursuant to 40 CFR 63.1350 (Monitoring Requirements), the Permittee shall monitor opacity from for each conveyor transfer point associated with the Kiln #1 and Kiln #2 alternative fuel delivery systems, by conducting daily visual emissions observations of the F-19 and F-20 conveyor systems, in accordance with the procedures of 40 CFR 60, Appendix A, Method 22.

The Method 22 test shall be conducted while the affected source is operating at representative performance conditions. The duration of the Method 22 test shall be six minutes. If visible emissions are observed during any Method 22 visible emissions test, the Permittee must:

Initiate, within one (1) hour, the corrective actions specified in the site specific operations and maintenance plan developed in accordance with 40 CFR §§ 63.1350(a)(1) and (a)(2).

Within twenty-four (24) hours of the end of the Method 22 test in which visible emissions were observed, conduct a follow-up Method 22 test of each stack from which visible emissions were observed during the previous Method 22 test. If visible emissions are observed during the follow-up Method 22 test from any stack from which visible emissions were observed during the previous Method 22 test, conduct a visual opacity test of each stack from which visible emissions were observed during the follow-up Method 22 test in accordance with 40 CFR Part 60, Appendix A, Method 9. The duration of the Method 9 test shall be thirty minutes.

- (3) Section D.4 of the Part 70 Permit Part 70 Operating Permit 093-5990-00002, issued on December 30, 2002 has been revised to incorporate the Kiln #1 and Kiln #2 alternate fuel delivery systems (any changes are shown in **bold** or ~~strikeout~~ fonts for emphasis):

SECTION D.4 FACILITY/EMISSION UNIT OPERATION CONDITIONS

Facility/Emissions Unit Description [326 IAC 2-7-5(15)]

The kiln facilities/emissions units, as follows:

- (1) One (1) kiln #1, identified as EU15, constructed in 1959 as a long dry kiln and modified to a one-stage preheater kiln in July 2003, with a heat input rate of 118 million Btu per hour, with a nominal production rate of 38 tons per hour, with PM emissions controlled by one (1) electrostatic precipitator (ESP), identified as KP1, and dioxins/furans controlled and SO₂ partially controlled by a Water Spray Tower, and exhausting to one (1) stack, identified as S-KP1. Kiln #1 is also permitted to use a blended fuel of coal and pressed paper making waste where the blend has a maximum of 20% pressed paper making waste by heat input.

Kiln #1 is permitted to use a blended fuel of coal and clean wood where the blend has a maximum of up to 35% clean wood by heat input.

- (2) One (1) kiln #2, identified as EU16, constructed in 1959 as a long dry kiln and modified to a one-stage preheater kiln in July 2003, with a heat input rate of 118 million Btu per hour, with a nominal production rate of 38 tons per hour, with PM emissions controlled by one (1) electrostatic precipitator (ESP), identified as KP2, and dioxins/furans controlled and SO₂ partially controlled by a Water Spray Tower, and exhausting to one (1) stack, identified as S-KP1. Kiln #2 is also permitted to use a blended fuel of coal and pressed paper making waste where the blend has a maximum of 20% pressed paper making waste by heat input.

Kiln #2 is permitted to use a blended fuel of coal and clean wood where the blend has a maximum of up to 35% clean wood by heat input.

- (3) One (1) kiln #3, identified as EU17, constructed in 1974 as a one-stage preheater kiln, with a heat input rate of 118 million Btu per hour, with a nominal production rate of 43 tons per hour, with PM emissions controlled by one (1) electrostatic precipitator (ESP), identified as KP3, and exhausting to one (1) stack, identified as S-KP2. Kiln #3 is also permitted to use a blended fuel of coal and pressed paper making waste where the blend has a maximum of 20% pressed paper making waste by heat input.

(The information describing the processes contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 Kiln #1 and Kiln #2 Partial Fuel Switch, Applicability [326 IAC 2-2-2(d)]

Pursuant to 326 IAC 2-2-2(d), Kiln #1 and Kiln #2 are permitted to burn a blended fuel of coal and clean wood where the blend has a maximum of up to 35% clean wood by heat input.

The addition of "Kiln #1 and Kiln #2 Partial Fuel Switch, Applicability [326 IAC 2-2-2(d)]" as D.4.1 will require re-numbering of the original D.4.1 to D.4.17 conditions to D.4.2 through

D.4.18.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 093-21778-00002.

Appendix A: Emissions Calculations

Company Name: Lehigh Portland Cement Company
Address: 121 North First Street, Mitchell, Indiana 47446
Permit Number: 093-21778-00002 & 093-21919-00002
Reviewer: Walter Habeeb
Date: October 14, 2005

Emissions from Kilns using 100% Coal vs. 65% Coal and 35% Clean Wood							
	CO	NOx	SO2	VOC	PM	PM10	Pb
PTE 100% coal Kiln 1 & 2 (TPY)	537.53	3,585.69	2,417.28	96.56	90.13	189.91	0.54397
PTE 65% coal/35% clean wood or 100% coal (tpy)	537.53	3,585.69	2,417.28	96.56	90.13	189.91	0.54396
Diff. Kiln 1 & 2 (tpy)	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Emissions provided by the source and based on adjusted baseline actual emissions for CO, NOx, SO2, VOC, PM, and PM10 for time period April 1998 through March 2000. Adjusted baseline actual emissions for Pb is based on time period August 2003 through July 2005.

Fugitive Emissions from Fuel Delivery System for 100% Coal vs. 35% Clean Wood *					
Operation	PM factor (lb/ton)	PM10 factor (lb/ton)	Potential Throughput	Emissions PM (tpy)	Emissions PM 10 (tpy)
Truck unloading into fuel hopper	0.012077 **	0.005712 **	175,200	1.058	0.500
Transfer of fuel from hopper onto conveyor	Totally Enclosed	Totally Enclosed	175,200	0.00	0.00
Transfer of fuel from conveyor into conveyor discharge chute	Totally Enclosed	Totally Enclosed	175,200	0.00	0.00
Transfer of fuel from conveyor discharge chute into pfister	Totally Enclosed	Totally Enclosed	175,200	0.00	0.00
Transfer of fuel from pfister into delivery pipe	Totally Enclosed	Totally Enclosed	175,200	0.00	0.00
Transfer of fuel from delivery pipe into burner pipe	Totally Enclosed	Totally Enclosed	175,200	0.00	0.00
Transfer of fuel from burner pipe into kiln	Totally Enclosed	Totally Enclosed	175,200	0.00	0.00
Total Fugitive Emissions from Conveyor System				1.058	0.500

** Emission Factors based on AP-42 Section 13.2.4