



Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

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Governor

Carol S. Comer
Commissioner

NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

Preliminary Findings Regarding a
Significant Source Modification and Significant Permit to a
Part 70 Operating Permit

for Hydraulic Press Brick Company in
Morgan County

Significant Source Modification No.: 109-36721-00007

Significant Permit Modification No.: 109-36723-00007

The Indiana Department of Environmental Management (IDEM) has received an application from Hydraulic Press Brick Company, located at 6618 Tidewater Road, Mooresville, Indiana 46158, for a significant modification of its Part 70 Operating Permit issued on December 27, 2013. If approved by IDEM's Office of Air Quality (OAQ), this proposed modification would allow Hydraulic Press Brick Company to make certain changes at its existing source. Hydraulic Press Brick Company has applied to install limestone injection systems and associated limestone storage silos to control SO₂ emissions from existing two kilns.

The applicant intends to construct and operate new equipment that will emit air pollutants; therefore, the permit contains new or different permit conditions. In addition, some conditions from previously issued permits/approvals have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes (e.g. changes that add or modify synthetic minor emission limits). IDEM has reviewed this application and has developed preliminary findings, consisting of a draft permit and several supporting documents, which would allow the applicant to make this change.

A copy of the permit application and IDEM's preliminary findings are available at:

Morgan County Public Library
110 S. Jefferson Street
Martinsville, IN 46151

A copy of the preliminary findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>.

How can you participate in this process?

The date that this notice is published in a newspaper marks the beginning of a 30-day public comment period. If the 30th day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the **air pollution impact** of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public meeting instead of, or in addition to, a public hearing. If a public hearing or meeting is held, IDEM will make a separate announcement of the date, time, and location of that hearing or meeting. At a hearing, you would have an opportunity to submit written comments and make verbal comments. At a meeting,

you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM's mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number SSM 109-36721-00007 and SPM 109-36723-00007 in all correspondence.

Comments should be sent to:

Aida DeGuzman
IDEM, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(800) 451-6027, ask for extension 3-4972
Or dial directly: (317) 233-4972
Fax: (317) 232-6749 attn: Aida DeGuzman
E-mail: adeguzma@idem.IN.gov

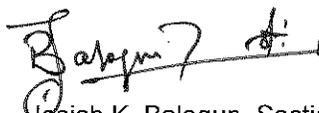
All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor, or noise. For such issues, please contact your local officials.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

What will happen after IDEM makes a decision?

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM's response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM's decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, and the IDEM public file room on the 12th floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions, please contact Aida DeGuzman of my staff at the above address.



Josiah K. Balogun, Section Chief
Permits Branch
Office of Air Quality



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Mr. Paul Coffey
Hydraulic Press Brick Company
P.O. Box 130
Brooklyn, Indiana 46111

Re: 109-36721-00007
Significant Source Modification

Dear Mr. Coffey:

Hydraulic Press Brick Company was issued Part 70 Operating Permit Renewal No. T109-33622-00007 on December 27, 2013 for a shale processing plant producing lightweight expanded shale aggregates located at 6618 Tidewater Road in Mooresville, Indiana. An application to modify the source was received on January 15, 2016. Pursuant to the provisions of 326 IAC 2-7-10.5, a Significant Source Modification is hereby approved as described in the attached Technical Support Document.

Pursuant to 326 IAC 2-7-10.5, the following emission units approved for construction at the source:

- (1) One (1) limestone injection system, identified as CE-K4, with maximum rated capacity of 4,000 pounds of limestone per hour, approved in 2016 for construction to control SO₂ emissions from the existing Kiln, ID K4.
- (2) One (1) limestone injection system, identified as CE-K5 with maximum rated capacity of 4,000 pounds of limestone per hour, approved in 2016 for construction to control SO₂ emissions from the existing Kiln, ID K5.
- (3) Two (2) limestone storage silos, each with storage capacity of 120 tons, controlled by bin vent filters, approved in 2016 for construction.

The following construction conditions are applicable to the proposed modification:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

3. Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

Commenced Construction

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(j), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of

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this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Approval to Construct

6. Pursuant to 326 IAC 2-7-10.5(h)(2), this Significant Source Modification authorizes the construction of the new emission unit(s), when the Significant Source Modification has been issued.

Pursuant to 326 IAC 2-7-10.5(m), the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

Pursuant to 326 IAC 2-7-12, operation of the new emission units is not approved until the Significant Permit Modification has been issued. Operating conditions shall be incorporated into the Part 70 Operating Permit as a Significant Permit Modification in accordance with 326 IAC 2-7-10.5(m)(2) and 326 IAC 2-7-12 (Permit Modification).

A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

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 Aida DeGuzman of my staff, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, or call at (800) 451-6027, and ask for Aida DeGuzman or extension 3-4972 or dial (317) 233-4972.

Sincerely,

Josiah K. Balogun, Section Chief
Permits Branch
Office of Air Quality

Attachments: Significant Source Modification and Technical Support Document

cc: File - Morgan County
Morgan County Health Department
U.S. EPA, Region 5



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Significant Source Modification to a Part 70 Source

OFFICE OF AIR QUALITY

**Hydraulic Press Brick Company
6618 Tidewater Road
 Mooresville, Indiana 46158**

(herein known as the Permittee) is hereby authorized to construct 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.

This permit also addresses certain new source review requirements for new and/or existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions.

Significant Source Modification No. 109-36721-00007	
Issued by: Josiah K. Balogun, Section Chief Permits Branch Office of Air Quality	Issuance Date:

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Attachment A - 40 CFR Part 60, Subpart OOO (Nonmetallic Mineral Processing Plant)

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary shale processing plant producing lightweight expanded shale aggregate.

Source Address: 6618 Tidewater Road, Mooresville, Indiana 46158
General Source Phone Number: 317-831-0710
SIC Code: 3295 (Minerals and Earths, Ground or Otherwise Treated)
County Location: Morgan
Source Location Status: Attainment for all criteria pollutants
Source Status: Part 70 Operating Permit Program
Major Source, under PSD Rules
Major Source, Section 112 of the Clean Air Act
Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(14)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) pre-kiln shale processing operation, identified as pre-kiln, constructed in 1954, with a maximum capacity of 200 tons of raw shale per hour, using wet suppression of fugitive dust as control, and exhausting outside the building, and consisting of the following equipment:
 - (1) one (1) primary crusher, identified as PK1, with a maximum capacity of 200 tons of raw shale per hour,
 - (2) one (1) secondary crusher, identified as PK2, with a maximum capacity of 100 tons of raw shale per hour,
 - (3) six (6) conveyors, identified as PK3 through PK8, each with a maximum capacity of 200 tons of raw shale per hour;
- (b) one (1) rotary kiln, identified as K4, constructed in 1962, with a maximum heat input of 100 million British Thermal Units (MMBtu) per hour burning natural gas or bituminous coal, and modified in 1999 to burn No. 4 fuel oil, with a maximum capacity of 15 tons of raw shale per hour, using a Peabody wet scrubber as control, and exhausting to stack ST4;
- (c) One (1) rotary kiln, identified as K5, constructed in 1966, with a maximum heat input of 100 MMBtu per hour burning natural gas or bituminous coal, with a maximum capacity of 30 tons of raw shale per hour, using a cloth baghouse as control, and exhausting to stack ST5;
- (d) One (1) haydite crusher line, identified as HCR, constructed in 1962, with a maximum capacity of 100 tons of expanded shale per hour, using wet suppression of fugitive dust as control, exhausting outside the building, and consisting of the following equipment:
 - (1) one (1) primary haydite crusher, identified as HCR1, with a maximum capacity of

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- (2) 100 tons of expanded shale per hour,
 - (2) one (1) secondary haydite crusher, identified as HCR2, with a maximum capacity of 100 tons of expanded shale per hour,
 - (3) three (3) screens, identified as HCR3 through HCR5, each with a maximum capacity of 100 tons of expanded shale per hour, and
 - (4) seven (7) conveyors, identified as HCR9 through HCR15, each with a maximum capacity of 100 tons of expanded shale per hour;
- (e) One (1) reciprocating grate clinker cooler, identified as CLNKCOOL, constructed in 1966, with a maximum capacity of 40 tons of expanded shale per hour, using a multicloner as control, and exhausting to stack ST2; and
- (f) One (1) expanded shale aggregate crusher line, identified as ESA, constructed in 2000, with a maximum capacity of 30 tons of expanded shale per hour and consisting of the following equipment:
- (1) one (1) expanded shale aggregate crusher, identified as ESA 1, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6,
 - (2) one (1) screen, identified as ESA 2, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6, and
 - (3) five (5) conveyors, identified as ESA 3 through ESA 7, each with a maximum capacity of 30 tons of expanded shale per hour, utilizing a water spray system on the feed conveyor as particulate control and exhausting fugitively.

[Under 40 CFR 60, Subpart OOO, the crushers, screens, and conveyors are affected facilities in a fixed nonmetallic mineral processing plant [40 CFR 60, Subpart OOO].

- (g) One (1) limestone injection system, identified as CE-K4, with maximum rated capacity of 4,000 pounds of limestone per hour, approved in 2016 for construction to control SO₂ emissions from the existing Kiln #4.
- (h) One (1) limestone injection system, identified as CE-K5 with maximum rated capacity of 4,000 pounds of limestone per hour, approved in 2016 for construction to control SO₂ emissions from the existing Kiln #5.
- (i) Two (2) limestone storage silos, #1 and #2, each with storage capacity of 120 tons, controlled by bin vent filters, approved in 2016 for construction.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5(14)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) Paved and unpaved roads and parking lots with public access; [326 IAC 6-4]
- (b) Other activities or categories not previously identified with emissions below insignificant thresholds: [326 IAC 6-4]
 - (1) One coal silo, identified as silo 6,
 - (2) One (1) coal unloading operation, with a maximum capacity of 280 tons of coal per hour, consisting of one (1) dump pit, one (1) hopper for coal unloading, and two (2) conveyors,
 - (3) Four (4) covered silos, identified as silos 3, 4, 5A, and 5B, each with a maximum

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- capacity of 200 tons of raw shale,
- (4) Three (3) hoppers, identified as HCR6 through HCR8, each with a maximum capacity of 100 tons of raw shale per hour,
- (5) Two (2) chutes, identified as HCR16 and HCR17, each with a maximum capacity of 100 tons of expanded shale per hour.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

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SECTION B

GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

- (a) This permit, T109-33622-00007, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit or of permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7] [IC 13-17-12]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

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

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

- (a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:
- (1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), and
 - (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A "responsible official" is defined at 326 IAC 2-7-1(35).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region 5
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

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The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

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The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to

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be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
- (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

- (a) All terms and conditions of permits established prior to T109-33622-00007 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit, except for permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control)

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that

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meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
- (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the

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deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12] [40 CFR 72]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Pursuant to 326 IAC 2-7-11(b) and 326 IAC 2-7-12(a), administrative Part 70 operating permit amendments and permit modifications for purposes of the acid rain portion of a Part 70 permit shall be governed by regulations promulgated under Title IV of the Clean Air Act. [40 CFR 72]
- (c) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (d) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.18 Permit Revision Under Economic Incentives and Other Programs
[326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

- (a) No Part 70 permit revision or notice shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.19 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (c) without a prior permit revision, if each of the following conditions is met:
- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
 - (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

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- (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region 5
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) and (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1) and (c)(1).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(37)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

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- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.
- (f) This condition does not apply to emission trades of SO₂ or NO_x under 326 IAC 21 or 326 IAC 10-4.

B.20 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.21 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

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SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this 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.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

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.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

The Permittee shall comply with the applicable requirements of 326 IAC 14-10, 326 IAC 18, and 40 CFR 61.140.

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Testing Requirements [326 IAC 2-7-6(1)]

C.8 Performance Testing [326 IAC 3-6]

- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

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

C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)][40 CFR 64][326 IAC 3-8]

- (a) For new units:
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.
- (b) For existing units:
Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance, to begin such monitoring. If, due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (c) For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
- (d) For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

C.11 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. The analog instrument shall be capable of measuring values outside of the normal range.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]

C.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

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C.13 Risk Management Plan [326 IAC 2-7-5(11)] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.14 Response to Excursions or Exceedances [40 CFR 64][326 IAC 3-8][326 IAC 2-7-5]
[326 IAC 2-7-6]

- (I) Upon detecting an excursion where a response step is required by the D Section, or an exceedance of a limitation, not subject to CAM, in this permit:
 - (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
 - (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
 - (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
 - (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
 - (e) The Permittee shall record the reasonable response steps taken.
- (II)
 - (a) *CAM Response to excursions or exceedances.*
 - (1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal

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without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

- (2) Determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
- (b) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed significant permit modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
- (c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a Quality Improvement Plan (QIP). The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.
- (d) Elements of a QIP:
The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).
- (e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.
- (f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(c) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:
 - (1) Failed to address the cause of the control device performance problems;
or
 - (2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.
- (h) *CAM recordkeeping requirements.*
 - (1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality

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improvement plan required pursuant to paragraph (II)(c) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

- (2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

Pursuant to 326 IAC 2-6-3(b)(1), starting in 2004 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(33) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

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The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]
[326 IAC 2-2][326 IAC 2-3]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following, where applicable:

- (AA) All calibration and maintenance records.
- (BB) All original strip chart recordings for continuous monitoring instrumentation.
- (CC) Copies of all reports required by the Part 70 permit.

Records of required monitoring information include the following, where applicable:

- (AA) The date, place, as defined in this permit, and time of sampling or measurements.
- (BB) The dates analyses were performed.
- (CC) The company or entity that performed the analyses.
- (DD) The analytical techniques or methods used.
- (EE) The results of such analyses.
- (FF) The operating conditions as existing at the time of sampling or measurement.

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

(c) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A), 326 IAC 2-2-8 (b)(6)(B), 326 IAC 2-3-2 (l)(6)(A), and/or 326 IAC 2-3-2 (l)(6)(B)) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:

(1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, document and maintain the following records:

- (A) A description of the project.
- (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
- (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;

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- (ii) Projected actual emissions;
 - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(pp)(2)(A)(iii) and/or 326 IAC 2-3-1 (kk)(2)(A)(iii); and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (d) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A) and/or 326 IAC 2-3-2 (l)(6)(A)) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:
- (1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
 - (2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3] [40 CFR 64] [326 IAC 3-8]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

On and after the date by which the Permittee must use monitoring that meets the requirements of 40 CFR Part 64 and 326 IAC 3-8, the Permittee shall submit CAM reports to the IDEM, OAQ.

A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and the following information, as applicable:

- (1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
- (2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime

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associated with zero and span or other daily calibration checks, if applicable);
and

- (3) A description of the actions taken to implement a QIP during the reporting period as specified in Section C-Response to Excursions or Exceedances. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

The Permittee may combine the Quarterly Deviation and Compliance Monitoring Report and a report pursuant to 40 CFR 64 and 326 IAC 3-8.

- (b) The address for report submittal is:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (e) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (oo) and/or 326 IAC 2-3-1 (jj)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
 - (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (ww) and/or 326 IAC 2-3-1 (pp), for that regulated NSR pollutant, and
 - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).
- (f) The report for project at an existing emissions unit shall be submitted no later than sixty (60) days after the end of the year and contain the following:
 - (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).

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- (4) Any other information that the Permittee wishes to include in this report such as an explanation as to why the emissions differ from the preconstruction projection.

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (g) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with applicable standards for recycling and emissions reduction.

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SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) pre-kiln shale processing operation, identified as pre-kiln, constructed in 1954, with a maximum capacity of 200 tons of raw shale per hour, using wet suppression of fugitive dust as control, and exhausting outside the building, and consisting of the following equipment:
- (1) one (1) primary crusher, identified as PK1, with a maximum capacity of 200 tons of raw shale per hour,
 - (2) one (1) secondary crusher, identified as PK2, with a maximum capacity of 100 tons of raw shale per hour,
 - (3) six (6) conveyors, identified as PK3 through PK8, each with a maximum capacity of 200 tons of raw shale per hour;

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

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

D.1.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from each of the following:

- (a) the one (1) primary crusher and six (6) conveyors shall each not exceed 58.51 pounds per hour when each operating at a process weight rate of 400,000 pounds per hour.
- (b) the one (1) secondary crusher shall not exceed 51.28 pounds per hour when operating at a process weight rate of 200,000 pounds per hour.

The pounds per hour limitation was 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:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.1.2 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan (PMP) is required for this unit and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

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SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (b) one (1) rotary kiln, identified as K4, constructed in 1962, with a maximum heat input of 100 million British Thermal Units (MMBtu) per hour burning natural gas or bituminous coal, and modified in 1999 to burn No. 4 fuel oil, with a maximum capacity of 15 tons of raw shale per hour, using a Peabody wet scrubber as control, and exhausting to stack ST4;
- (c) One (1) rotary kiln, identified as K5, constructed in 1966, with a maximum heat input of 100 MMBtu per hour burning natural gas or bituminous coal, with a maximum capacity of 30 tons of raw shale per hour, using a cloth baghouse as control, and exhausting to stack ST5;
- (g) One (1) limestone injection system, identified as CE-K4, with maximum rated capacity of 4,000 pounds of limestone per hour, approved in 2016 for construction to control SO₂ emissions from the existing Kiln #4.
- (h) One (1) limestone injection system, identified as CE-K5 with maximum rated capacity of 4,000 pounds of limestone per hour, approved in 2016 for construction to control SO₂ emissions from the existing Kiln #5.
- (i) Two (2) limestone storage silos, #1 and #2, each with storage capacity of 120 tons, controlled by bin vent filters, approved in 2016 for construction.

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

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

D.2.1 Prevention of Significant Deterioration (PSD) Minor Limits [326 IAC 2-2]

- (a) In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the Permittee shall comply with the following:
 - (1) The use of No. 4 fuel oil in rotary kiln K4 shall be limited based on 0.5% sulfur content to less than 0.99 million gallons per twelve (12) month consecutive period with compliance determined at the end of each month period.
 - (2) The PM-10 emissions from #4 fuel oil use shall be limited to less than 3.42 pounds per hour.

Compliance with these limits shall ensure that the potential emissions of SO₂ and NO_x are each limited to less than 40 tons per year, and the PM₁₀ emissions are limited to less than 15 tons per year and render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to 1999 modification.

- (b) In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the Permittee shall comply with the following:
 - (1) Limestone throughput to the two (2) limestone storage silos shall be limited to 24,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month period.
 - (2) The Particulate Matter (PM) emissions from the two (2) limestone storage silos shall not exceed 1.4 pound per ton (lb/ton) of limestone loaded.

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- (3) The PM10 emissions from the two (2) limestone storage silos shall not exceed 0.60 pound per ton (lb/ton) of limestone loaded.
- (4) The PM2.5 emissions from the two (2) limestone storage silos shall not exceed 0.20 pound per ton (lb/ton) of limestone loaded.

Compliance with these limits from the two (2) limestone storage silos shall ensure that PM emissions are less than 25 tons per year, PM10 are less than 15 tons per year and PM2.5 are less than 10 tons per year, which render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to this modification.

D.2.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from each of the following:

- (a) The one (1) rotary kiln (ID K4) shall not exceed 25.16 pounds per hour when operating at a process weight rate of 30,000 pounds per hour of crushed shale (equivalent to 15 tons per hour).
- (b) The one (1) rotary kiln (ID K5) shall not exceed 40.04 pounds per hour when operating at a process weight rate of 60,000 pounds per hour of crushed shale (equivalent to 30 tons per hour).
- (c) The limestone unloading to Storage Silo #1 shall not exceed 27.0 pounds per hour when operating at a process weight rate of 16.67 tons per hour.
- (d) The limestone unloading to Storage Silo #2 shall not exceed 27.0 pounds per hour when operating at a process weight rate of 16.67 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation 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

D.2.3 Sulfur Dioxide (SO₂) Emission Limitations [326 IAC 7-1.1-2] [326 IAC 7-4-11.1]

- (a) Pursuant to 326 IAC 7-1.1 (SO₂-Emissions Limitations), the Permittee shall comply with the following:
 - (1) The sulfur dioxide emissions from the one (1) rotary kiln (ID K4) when burning No. 4 fuel oil shall be limited to 1.6 pounds per MMBtu of heat input from No. 4 fuel oil.
- (b) Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations), prior to January 1, 2017, the Permittee shall comply with the following:
 - (1) The sulfur dioxide emissions from each of the two (2) rotary kilns (IDs K4 and K5) when burning coal, shall not exceed six (6) pounds per MMBtu of coal combustion.

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- (c) Pursuant 326 IAC 7-4-11.1, (Morgan County Sulfur Dioxide (SO₂) Emissions Limitations), on and after January 1, 2017, the Permittee shall comply with the following:
- (1) The Sulfur dioxide emissions from kiln ID K4 shall be reduced by a minimum control efficiency of 50% or to 2.5 pounds per million British thermal units (lbs/MMBtu) of heat input, whichever is less stringent.
 - (2) The Sulfur dioxide emissions from kiln, ID K5 shall be reduced by a minimum control efficiency of 50% or to 2.5 lbs/MMBtu of heat input, whichever is less stringent.
 - (3) The sulfur dioxide emissions above from each of the two (2) rotary kilns (IDs K4 and K5), shall not exceed six (6) pounds per MMBtu of heat input.

These emission limits apply to sulfur dioxide emissions from both the combustion of coal and the processing of shale.

D.2.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan (PMP) is required for these units and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

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

D.2.5 Testing Requirements [326 IAC 2-7-(1),(6)] [326 IAC 2-7-5(1)] [326 IAC 2-1.1-11]

- (a) In order to determine compliance with Condition D.2.2, the Permittee shall perform PM testing on the two (2) rotary kilns (K4 and K5), utilizing methods as approved by the Commissioner. This test 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 the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.
- (b) In order to determine compliance with Condition D.2.1(b), the Permittee shall perform PM₁₀ testing on kiln K4 within one hundred and eighty (180) days, when burning oil, utilizing methods as approved by the Commissioner. This test 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 the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.
- (c) Within sixty (60) days after the installation of the limestone injection systems but not later than January 1, 2017, the Permittee shall perform SO₂ testing on the two (2) rotary kilns (K4 and K5), to establish the limestone injection rate that will demonstrate compliance with Condition D.2.3(c), utilizing methods as approved by the Commissioner. This test 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 the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.
- (d) Compliance with the control efficiency limits in Condition D.2.3(c) shall be based on measured sulfur dioxide in the shale and fuel compared to the outlet sulfur dioxide concentration measured during SO₂ testing. The shale and fuel sulfur content measurements for this purpose shall reflect a representative sample of the material fed into each kiln during each run of the stack test.

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D.2.6 Particulate Control [326 IAC 2-7-5(1)]

In order to comply with condition D.2.2:

- (a) The wet scrubber for particulate control shall be in operation and control emissions from the rotary kiln (K4) at all times that the rotary kiln (K4) is in operation.
- (b) The baghouse for particulate control shall be in operation and control emissions from the one (1) rotary kiln at all times that the one (1) rotary kiln (K5) is in operation.
- (c) The baghouse/bin vent filter for particulate control shall be in operation and control emissions from the two (2) limestone storage silos all the time that limestone is being loaded.
- (d) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.2.7 Broken or Failed Bag or Scrubber Detection [326 IAC 2-7-5(1)] [40 CFR 64]

- (a) For a single compartment units controlling emissions from a process operated continuously, a failed unit and the associated process will be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shutdown no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency provisions of this permit (Section B - Emergency Provisions).

Compliance with the above monitoring conditions shall also satisfy the requirements of 40 CFR 64, Compliance Assurance Monitoring for the three rotary kilns (K3, K4 and K5).

D.2.8 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 2-7-5(1)]

Pursuant to 326 IAC 7-2, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed six (6.0) pounds per MMBtu when burning coal. Compliance shall be determined utilizing the following options:

- (a) Sampling and analyzing the coal using one of the following procedures:
 - (1) Minimum Coal Sampling Requirements and Analysis Methods:
 - (A) The coal sample acquisition point shall be at a location where representative samples of the total coal flow to be combusted by the facility or facilities may be obtained. A single as-bunkered or as-burned sampling station may be used to represent the coal to be combusted by multiple facilities using the same stockpile feed system;
 - (B) Coal shall be sampled at least one (1) time per day;
 - (C) Minimum sample size shall be five hundred (500) grams;

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- (D) Samples shall be composited and analyzed at the end of each calendar month;
 - (E) Preparation of the coal sample, heat content analysis, and sulfur content analysis shall be determined pursuant to 326 IAC 3-7-2(c), (d), (e); or
- (2) Sample and analyze the coal pursuant to 326 IAC 3-7-3; or
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6, which is conducted with such frequency as to generate the amount of information required by (a) or (b) above. [326 IAC 7-2-1(b)]

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

D.2.9 Sulfur Dioxide Control [326 IAC 2-7-5(1)]

In order to demonstrate compliance with Condition D.2.3, the limestone injection system for sulfur dioxide control shall be in operation and control emissions from the two (2) rotary kilns (K4 and K5) at all times that the two (2) rotary kilns (K4 and K5) are in operation unless the permittee can demonstrate that uncontrolled sulfur dioxide emissions (accounting for sulfur contained in the shale and sulfur contained in fuel burned in the kilns) is below 2.5 pounds per million Btu (MMBtu) of heat input.

D.2.10 Sulfur Content [326 IAC 2-7-5(1)]

Pursuant to 326 IAC 7-4.11.1, the Permittee shall perform monthly sampling and analysis according to 326 IAC 7-2-1 for the sulfur content of shale to be processed for each upcoming months. The sampling and analysis of shale shall be performed using the following procedures:

- (a) Shale Sampling Requirements and Analysis Methods:
- (1) A composite sample shall be collected of the shale derived from a gridded area of the mine where the extraction will take place over each calendar month.
 - (2) A minimum of eight (8) evenly spaced samples shall be collected for each monthly sampling;
 - (3) Minimum sample size shall be five hundred (500) grams;
 - (4) Samples shall be composited and analyzed prior to processing the shale;
 - (5) Preparation of the shale sample and shale sulfur content analysis shall be determined pursuant to 326 IAC 3-7-2(c), (d), (e); and
- (b) Sample and analyze the coal or shale pursuant to 326 IAC 3-7-3.

D.2.11 Limestone Injection Rate [326 IAC 2-7-5(1)]

- (a) In order to demonstrate compliance with the SO₂ emissions limits in Condition D.2.3(c), the limestone used to control sulfur dioxide (SO₂) emissions from kilns ID K4 and ID K5 shall be injected into these kilns at a feed rate established during the latest stack test.
- (b) In order to demonstrate compliance with the SO₂ emissions limits in Condition D.2.3(c), the limestone shall be injected at the feed rate established during the latest stack test

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until a limestone feed rate is established, based on the monthly testing of the sulfur content of the shale to be processed and vendor data on fuel to be combusted. The limestone injection rate shall be calculated using the following equation when complying with SO₂ limit through 50% control allowed in Condition D.2.3(c):

$$Lc = [(Cs*38*Cfr/2000) + (Ss/100*2000*(64/32))*0.5*Lr*Sfr$$

Where

Lc = Calculated limestone injection rate (lb/hour)

Cs = Coal sulfur content (%)

Cfr = Coal feed rate (lb coal/ton shale processed)

Ss = Shale sulfur content (%)

Lr = Limestone injection rate (lb limestone/lb SO₂ removed based on compliance test)

Sfr = Shale feed rate (tons per hour)

Note: 38S lb/ton coal (AP-42 Table 1.1-3)

64 lb/lb-mole (molecular weight of SO₂)

32 lb/lb-mole (molecular weight of sulfur)

0.5 is for achieving SO₂ limit through 50% control

- (c) In order to demonstrate compliance with the SO₂ emission limits in Condition D.2.3(c), the limestone shall be injected at the feed rate established during the latest stack test until a limestone feed rate is established, based on the monthly testing of the sulfur content of the shale to be processed and vendor data on fuel to be combusted. The limestone injection rate shall be calculated using the following equation when complying with SO₂ emission limit of less than 2.5 lb/MMBtu allowed in Condition D.2.3(c):

$$Lc = [(Cs*38*Cfr/2000) + (Ss/100*2000*(64/32))*[(Rs-2.5)/Rs]*Lr*Sfr$$

Where

Lc = Calculated limestone injection rate (lb/hour)

Cs = Coal sulfur content (%)

Cfr = Coal feed rate (lb coal/ton shale processed)

Ss = Shale sulfur content (%)

Rs = Uncontrolled SO₂ emission rate (lb/mmBtu)

Lr = Limestone injection rate (lb limestone/lb SO₂ removed based on compliance test)

Sfr = Shale feed rate (tons per hour)

Note: 38S lb/ton coal (AP-42 Table 1.1-3)

64 lb/lb-mole (molecular weight of SO₂)

32 lb/lb-mole (molecular weight of sulfur)

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

D.2.12 Visible Emissions Notations [326 IAC 2 7 5(1)] [326 IAC 2 7 6(1)] [40 CFR 64]

- (a) Visible emission notations of rotary kiln (ID K4) wet scrubber stack (S/V ID ST4), rotary kiln (ID K5) baghouse stack (S/V ID ST 5) and the two (2) limestone storage silos stack exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

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- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Failure to take response steps shall be considered a deviation from this permit. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition.

Compliance with the above monitoring conditions shall also satisfy the requirements of 40 CFR 64, Compliance Assurance Monitoring for the three rotary kilns (K3, K4 and K5).

D.2.13 Wet Scrubber and Baghouse Parametric Monitoring [326 IAC 2 7 5(1)] [326 IAC 2 7 6(1)]
[40 CFR 64]

- (a) The Permittee shall record the pressure drop across the wet scrubber used in conjunction with the rotary kiln (ID K4), at least once per day when the process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the wet scrubber is outside the normal range, the Permittee shall take a reasonable response. The normal range is 6.0 to 10.0 inches of water and the flow rate for scrubbing liquid is 100 gallons per minute, unless a different upper-bound or lower-bound value for a range and liquid flow rate are determined during the latest compliant stack test. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

- (b) The Permittee shall record the pressure drop across the baghouse used in conjunction with the one (1) rotary kiln (ID K5), at least once per day when the process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range, the Permittee shall take reasonable response. . The normal range for this unit is a pressure drop between 3.0 and 8.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest compliant stack test. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.2.14 Limestone Injection System Parametric Monitoring 326 IAC 2 7 5(1)][326 IAC 2 7 6(1)]
[40 CFR 64]

The Permittee shall record the shale process throughput rate, coal throughput rate and limestone injection rate to the two (2) rotary kilns (IDs K4 and K5), continuously when the processes are in operation and limestone injection is necessary to achieve the sulfur dioxide emission limits contained in Condition D.2.3. "Continuously" means one reading every fifteen (15) minutes. When for any one reading the limestone injection rate is below the level determined necessary to comply with the sulfur dioxide emission limits contained in Condition D.2.3(c), pursuant to D.2.11, the Permittee shall take reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps

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required by this condition. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the feed rate shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once annually.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.15 Record Keeping Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

- (a) To document the compliance status with Conditions D.2.3(b) and D.2.8, the Permittee shall maintain records in accordance with (1) through (4) below when burning coal. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO₂ emission limits established in Conditions D.2.3(b) and D.2.8.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual coal usage since last compliance determination period;
 - (3) Sulfur content, heat content, and ash content; and
 - (4) Sulfur dioxide emission rates.
- (b) To document the compliance status with Condition D.2.1(a), the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the NO_x and SO₂ emission limits established in Condition D.2.1(a).
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual #4 fuel oil usage since last compliance determination period;
 - (3) Sulfur content and heat content,
 - (4) Sulfur dioxide emission rates; and
 - (5) Vendor analysis of #4 fuel oil and #4 fuel oil supplier certification.
- (c) Pursuant to 326 IAC 3-7-5(a), the owners or operators of sources with total coal-fired capacity greater than or equal one hundred (100) MMBtu per hour actual heat input shall develop a standard operating procedure (SOP) to be followed for sampling, handling, analysis, quality control, quality assurance, and data reporting of the information collected pursuant to 326 IAC 3-7-2 through 326 IAC 3-7-4. In addition any revision to the SOP shall be submitted to IDEM, OAQ.
- (d) To document the compliance status with Condition D.2.12- Visible Emission Notation, the Permittee shall maintain records of visible emission notations of the kiln (ID K4) wet scrubber stack (S/V ID ST4), rotary kiln (ID K5) baghouse stack (S/V ID ST 5) and the two (2) limestone storage silos stack exhausts once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (e) To document the compliance status with Condition D.2.13(a)- Wet Scrubber and Baghouse Parametric Monitoring, the Permittee shall maintain records once per day of the scrubber pressure drop and liquid flow rate. The Permittee shall include in its daily

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record when a pressure drop reading and liquid flow rate are not taken and the reason for the lack of a pressure drop and liquid flow rate readings (e.g. the process did not operate that day).

- (f) To document the compliance status with Condition D.2.13(b)- Wet Scrubber and Baghouse Parametric Monitoring, the Permittee shall maintain records once per day of the baghouse pressure drop. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).
- (g) To document the compliance status with Condition D.2.3(c) and Condition D.2.14, the Permittee shall record the following:
 - (1) Maintain records in accordance with (A) through (B). Records maintained for (A) through (B) shall be taken continuously and sufficient to establish compliance with the SO₂ emission limits established in Condition D.2.3(c).
 - (A) Type and quantity of shale processed; and
 - (B) Injection feed rate of limestone in pounds per hour.
 - (2) Maintain monthly records of the following
 - (A) Quantity of coal burned;
 - (B) Monthly composite sample analyses of coal sulfur content and heat content; and
 - (C) Monthly composite sample analysis of shale sulfur content.
- (h) To document the compliance status with Condition D.2.1(b)(1), the Permittee shall maintain monthly records of the limestone loaded into the two (2) limestone storage silos.
- (i) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

D.2.16 Reporting Requirements [326 IAC 2 7 5(3)] [326 IAC 2 7 19]

- (a) A quarterly summary of the information to document the compliance status with Condition D.2.1(a)(1) shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.
- (b) A quarterly summary of the information to document the compliance status with Condition D.2.1(b)(1) shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.

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SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (e) One (1) haydite crusher line, identified as HCR, constructed in 1962, with a maximum capacity of 100 tons of expanded shale per hour, using wet suppression of fugitive dust as control, exhausting outside the building, and consisting of the following equipment:
- (1) one (1) primary haydite crusher, identified as HCR1, with a maximum capacity of 100 tons of expanded shale per hour,
 - (2) one (1) secondary haydite crusher, identified as HCR2, with a maximum capacity of 100 tons of expanded shale per hour,
 - (3) three (3) screens, identified as HCR3 through HCR5, each with a maximum capacity of 100 tons of expanded shale per hour, and
 - (4) seven (7) conveyors, identified as HCR9 through HCR15, each with a maximum capacity of 100 tons of expanded shale per hour;

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

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

D.3.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the one (1) primary haydite crusher (ID HCR1), one (1) secondary haydite crusher (ID HCR2), three (3) screens (ID HCR3 through HCR5) and seven (7) conveyors (ID HCR9 through HCR14) shall each not exceed 51.28 pounds per hour when operating at a process weight rate of 200,000 pounds per hour.

The pounds per hour limitation was 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.3.2 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan (PMP) is required for this unit and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

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SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (f) One (1) reciprocating grate clinker cooler, identified as CLNKCOOL, constructed in 1966, with a maximum capacity of 40 tons of expanded shale per hour, using a multiclone as control, and exhausting to stack ST2; and

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

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

D.4.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the woodworking facilities shall not exceed 42.53 pounds per hour when operating at a process weight rate of 80,000 pounds per hour.

The pounds per hour limitation was 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.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan (PMP) is required for this unit and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

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

D.4.3 Particulate Control [326 IAC 2-7-5(1)]

In order to comply with condition D.4.1, the multiclone for particulate control shall be in operation and control emissions from the reciprocating grate clinker cooler at all times that the reciprocating grate clinker cooler is in operation.

D.4.4 Multiclone Failure Detection [326 IAC 2-7-5(1)]

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a violation of this permit.

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

D.4.5 Visible Emission Notation [326 IAC 2 7 5(1)][326 IAC 2 7 6(1)]

- (a) Once per day visible emission notations of the reciprocating grate clinker cooler stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Failure to take response steps shall be considered a deviation from this permit. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition.

D.4.6 Parametric Monitoring [326 IAC 2 7 5(1)] [326 IAC 2 7 6(1)]

The Permittee shall record the pressure drop across the multiclone used in conjunction with the reciprocating grate clinker cooler, at least once per day when the reciprocating grate clinker cooler is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 3.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated at least once every six (6) months.

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Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.7 Record Keeping Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

- (a) To document compliance with Condition D.4.5, the Permittee shall maintain once per day records of visible emission notations of the reciprocating grate clinker cooler stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (b) To document compliance with Condition D.4.6, the Permittee shall maintain once per day records of the pressure drop during normal operation when venting to the atmosphere. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).
- (c) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

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SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (g) One (1) expanded shale aggregate crusher line, identified as ESA, constructed in 2000, with a maximum capacity of 30 tons of expanded shale per hour and consisting of the following equipment:
 - (1) one (1) expanded shale aggregate crusher, identified as ESA 1, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6,
 - (2) one (1) screen, identified as ESA 2, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6, and
 - (3) five (5) conveyors, identified as ESA 3 through ESA 7, each with a maximum capacity of 30 tons of expanded shale per hour, utilizing a water spray system on the feed conveyor as particulate control and exhausting fugitively.

Under 40 CFR 60, Subpart OOO, the crushers, screens, and conveyors are affected facilities in a fixed nonmetallic mineral processing plant [40 CFR 60, Subpart OOO].

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

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

D.5.1 Prevention of Significant Deterioration (PSD) Minor Limits [326 IAC 2-2]

The Permittee shall comply with the followings:

Process	Process ID	Stack ID	Emission Limitation (lb/hr) PM10	Emission Limitation (lb/hr) PM
Screening	ESA 2	ST6	0.42	0.42
Crushing	ESA 1	ST6	1.59	2.28
Conveying	ESA 3-7	NA	1.2	1.20

Compliance with these limits will limit the potential to emit of PM and PM₁₀ emissions from the expanded shale aggregate crusher processes (Screening, Crushing and Conveying) to less than 25 and 15 tons per year, respectively and render the requirements of 326 IAC 2-2 (PSD) not applicable to the 1999 modification.

D.5.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the one (1) expanded shale aggregate crushing and screening facility which includes:

- (a) one (1) expanded shale aggregate crusher (ID ESA 1), shall not exceed 40.04 pounds per hour when operating at a process weight rate of 60,000 pounds per hour of expanded shale (equivalent to 30 tons per hour),

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- (b) one (1) screen (ID ESA 2), shall not exceed 40.04 pounds per hour when operating at a process weight rate of 60,000 pounds per hour of expanded shale (equivalent to 30 tons per hour), and
- (c) five (5) conveyors (ID ESA 3 through ESA 7), shall not exceed 40.04 pounds per hour when operating at a process weight rate of 60,000 pounds per hour of expanded shale (equivalent to 30 tons per hour).

The pounds per hour limitation was calculated with the following equation:

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

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.5.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan (PMP) is required for this unit and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

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

D.5.4 Particulate Control [326 IAC 2-7-5(1)]

In order to comply with conditions D.5.1, D.5.2 and D.5.3:

- (a) The baghouses for particulate control shall be in operation and control emissions from the one (1) expanded shale aggregate crusher (ID ESA 1) and one (1) screen (ID ESA 2) at all times that the processes are in operation.
- (b) The water spray system for particulate control shall be in operation and control emissions from the five (5) conveyors (ID ESA 3 through ESA 7) at all times that the processes are in operation, except when the ambient temperature is at or below the freezing point or the shale already contains sufficient moisture.
- (c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.5.5 Broken or Failed Bag Detection [326 IAC 2-7-5(1)][40 CFR 64]

- (a) For a single compartment units controlling emissions from a process operated continuously, a failed unit and the associated process will be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shutdown no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency provisions of this permit (Section B - Emergency Provisions).

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D.5.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-7-5(1)] [326 IAC 2-1.1-11]

In order to determine compliance with Condition D.5.1 and D.5.2, the Permittee shall perform PM and PM₁₀ testing on Stack ST6 within ninety (90) days after the start up of the unit, utilizing methods as approved by the Commissioner. This test 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 the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

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

D.5.7 Visible Emission Notation [326 IAC 2 7 5(1)][326 IAC 2 7 6(1)] [40 CFR 64]

- (a) Once per day visible emission notations of the expanded shale aggregate crusher line stack exhausts shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Failure to take response steps shall be considered a deviation from this permit. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition.

D.5.8 Parametric Monitoring [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)] [40 CFR 64]

The Permittee shall record the pressure drop across the baghouse used in conjunction with the expanded shale aggregate crusher line, at least once per day when the expanded shale aggregate crusher line is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated at least once every six (6) months.

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Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.9 Record Keeping Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

- (a) To document compliance with Condition D.5.7, the Permittee shall maintain once per day records of visible emission notations of the expanded shale aggregate crusher line stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (b) To document compliance with Condition D.5.8, the Permittee shall maintain records once per day of the pressure drop. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).
- (c) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

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SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

- (c) Other activities or categories not previously identified with emissions below insignificant thresholds: [326 IAC 6-4]
- (1) One coal silo, identified as silo 6,
 - (2) One (1) coal unloading operation, with a maximum capacity of 280 tons of coal per hour, consisting of one (1) dump pit, one (1) hopper for coal unloading, and two (2) conveyors,
 - (3) Four (4) covered silos, identified as silos 3, 4, 5A, and 5B, each with a maximum capacity of 200 tons of raw shale,
 - (4) Three (3) hoppers, identified as HCR6 through HCR8, each with a maximum capacity of 100 tons of raw shale per hour,
 - (5) Two (2) chutes, identified as HCR16 and HCR17, each with a maximum capacity of 100 tons of expanded shale per hour.

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

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

D.6.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the coal silo (Insignificant Activity), coal unloading operation (Insignificant Activity), covered silos (Insignificant Activity), hoppers, and chutes, identified as HCR16 and HCR17 shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation 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.

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NSPS

SECTION E.1

Emissions Unit Description:

- (g) One (1) expanded shale aggregate crusher line, identified as ESA, constructed in 2000, with a maximum capacity of 30 tons of expanded shale per hour and consisting of the following equipment:
- (1) one (1) expanded shale aggregate crusher, identified as ESA 1, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6,
 - (2) one (1) screen, identified as ESA 2, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6, and
 - (3) five (5) conveyors, identified as ESA 3 through ESA 7, each with a maximum capacity of 30 tons of expanded shale per hour, utilizing a water spray system on the feed conveyor as particulate control and exhausting fugitively.

Under 40 CFR 60, Subpart OOO, these crushers, screens, and conveyors are affected facilities in a fixed nonmetallic mineral processing plant [40 CFR 60, Subpart OOO].

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

New Source Performance Standards (NSPS) [326 IAC 2-7-5(1)]

E.1.1 General Provisions Relating to New Source Performance Standards Subpart OOO [326 IAC 12-1] [40 CFR Part 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission units listed above, except as otherwise specified in 40 CFR Part 60, Subpart OOO.
- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.1.2 Nonmetallic Mineral Processing Plants NSPS [40 CFR 60, Subpart OOO]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart OOO (included as Attachment A to the operating permit), which are incorporated by reference as 326 IAC 12.

- (1) 40 CFR 60.670(a)(1), (f)
- (2) 40 CFR 60.671
- (3) 40 CFR 60.672(a)(1), (a)(2)
- (4) 40 CFR 60.672(b)
- (5) 40 CFR 60.672(c)
- (6) 40 CFR 60.673

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- (7) 40 CFR 60.674
- (8) 40 CFR 60.675
- (9) 40 CFR 60.676

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**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Hydraulic Press Brick Company
Source Address: 6618 Tidewater Road, Mooreville, Indiana 46158
Part 70 Permit No.: T109-33622-00007

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify)
- Report (specify)
- Notification (specify)
- Affidavit (specify)
- Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: (317) 233-0178
Fax: (317) 233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Hydraulic Press Brick Company
Source Address: 6618 Tidewater Road, Mooreville, Indiana 46158
Part 70 Permit No.: T109-33622-00007

This form consists of 2 pages

Page 1 of 2

- | |
|---|
| <p><input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12)</p> <ul style="list-style-type: none">• The Permittee must notify the Office of Air Quality (OAQ), within four (4) daytime business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and• The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16. |
|---|

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

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If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Hydraulic Press Brick Company
Source Address: 6618 Tidewater Road, Mooresville, Indiana 46158
Part 70 Permit No.: T109-33622-00007
Facility: Rotary Kiln K4
Parameter: Fuel Usage
Limit: The use of No. 4 fuel oil in rotary kiln K4 based on 0.5% sulfur content shall be limited to less than 0.99 million gallons per twelve (12) month consecutive period, with compliance determined at the end of each month.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on:

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Hydraulic Press Brick Company
Source Address: 6618 Tidewater Road, Mooresville, Indiana 46158
Part 70 Permit No.: T109-33622-00007
Facility: Limestone Storage Silos #1 and #1
Parameter: PM, PM10 and PM2.5
Limit: 24,000 tons per twelve month - Limestone throughput to the Limestone Storage Silos #1 and #1

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING
REPORT**

Source Name: Hydraulic Press Brick Company
Source Address: 6618 Tidewater Road, Mooreville, Indiana 46158
Part 70 Permit No.: T109-33622-00007

Months: _____ **to** _____ **Year:** _____

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C- General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

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Page 2 of 2

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

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

**Technical Support Document (TSD) for a Part 70 Significant Source
Modification and Significant Permit Modification**

Source Description and Location

Source Name:	Hydraulic Press Brick Company
Source Location:	6618 Tidewater Road, Mooresville, Indiana 46158
County:	Morgan
SIC Code:	3295 (Minerals and Earths, Ground or Otherwise Treated)
Permit Renewal No.:	T109-33622-00007
Operation Permit Issuance Date:	December 27, 2013
Significant Source Modification No.:	109-36721-00007
Significant Permit Modification No.:	109-36723-00007
Permit Reviewer:	Aida DeGuzman

Existing Approvals

The source was issued Part 70 Operating Permit No. T109-33622-0007 on December 27, 2013. There have been no subsequent approvals issued.

County Attainment Status

The source is located in Morgan County.

Pollutant	Designation
SO ₂	Nonattainment effective October 4, 2013, for the 2010 SO ₂ standard for Clay and Washington townships. Better than national standards for the remainder of the county.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard. ¹
PM _{2.5}	Attainment effective July 11, 2013, for the annual PM _{2.5} standard.
PM _{2.5}	Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM _{2.5} standard.
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.
¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard, which was revoked effective June 15, 2005.	

- (a) **Ozone Standards**
Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Morgan 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) **PM_{2.5}**
Morgan County has been classified as attainment for PM_{2.5}. Therefore, direct PM_{2.5}, SO₂, and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (c) **SO₂**
U.S. EPA, in the Federal Register Notice 78 FR 47191 dated August 5, 2013, has designated Morgan County Clay Township where the source is located as nonattainment for SO₂. Therefore, SO₂ emissions were reviewed pursuant to the requirements of Emission Offset, 326 IAC 2-3.
- (d) **Other Criteria Pollutants**
Morgan County has been classified as attainment or unclassifiable in Indiana for the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Source Status - Existing Source

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	Emissions (ton/yr)
PM	519
PM ₁₀	128
PM _{2.5}	128
SO ₂	2,520
NO _x	541
VOC	222
CO	168
Single HAP	>10
Combined HAPs	<25

On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146_4q18.pdf) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHGs emissions to determine operating permit applicability or PSD applicability to a source or modification.

- (a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a PSD regulated pollutant, is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

- (b) This existing source is a major stationary source, under nonattainment new source review rules (326 IAC 2-1.1-5) since SO₂ is emitted at a rate of 100 tons per year or more.
- (c) These emissions are based upon the TSD for Part 70 Operating Permit Renewal T109-33622-00007.
- (d) This existing source is a major source of HAPs, as defined in 40 CFR 63.2, because HAP emissions are greater than ten (10) tons per year for a single HAP. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed modification applications, submitted by Hydraulic Press Brick Company on January 15, 2015, relating to the construction of the following units and control equipment:

- (a) One (1) limestone injection system, identified as CE-K4, with maximum rated capacity of 4,000 pounds of limestone per hour, approved in 2016 for construction to control SO₂ emissions from the existing Kiln, ID K4.
- (b) One (1) limestone injection system, identified as CE-K5 with maximum rated capacity of 4,000 pounds of limestone per hour, approved in 2016 for construction to control SO₂ emissions from the existing Kiln, ID K5.
- (c) Two (2) limestone storage silos, each with storage capacity of 120 tons, controlled by bin vent filters, approved in 2016 for construction.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – Part 70 Modification to an Existing Source

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emission unit 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, IDEM, or the appropriate local air pollution control agency.”

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit. If the control equipment has been determined to be integral, the table reflects the PTE after consideration of the integral control device.

New Emission Units	
Increase in PTE Before Controls of the Modification	
Pollutant	Potential To Emit (ton/yr)
PM	458.4
PM ₁₀	160.6
PM _{2.5}	160.6
SO ₂	0.0
VOC	0.0
CO	0.0
NO _x	0.0
Single HAPs	0.0
Total HAPs	0.0

Appendix A of this TSD reflects the unrestricted potential emissions of the modification.

PTE Change of the Modified Process			
Pollutant	PTE Before Modification (ton/yr)	PTE After Modification (ton/yr)	Increase from Modification (ton/yr)
PM	95,250.1	117,359.6	22,109.5
PM ₁₀	95,250.1	117,359.6	22,109.5
PM _{2.5}	95,250.1	117,359.6	22,109.5
SO ₂	3,692.3	3,692.3	0.0
VOC	0.0	0.0	0.0
CO	0.0	0.0	0.0
NO _x	0.0	0.0	0.0
HAPs	0.0	0.0	0.0

Note: The proposed limestone injection into the existing Kilns, ID K4 and K5 will control SO₂ emissions. However, it will result in particulate emissions increase from these kilns. All the other pollutants that were already accounted for in previous permit for these kilns will not be affected by this project.

Total PTE Increase due to the Modification			
Pollutant	PTE New Emission Units (ton/yr)	Net Increase to PTE of Modified Emission Units (ton/yr)	Total PTE for New and Modified Units (ton/yr)
PM	458.4	22,109.5	22,567.9
PM ₁₀	160.6	22,109.5	22,270.1
PM _{2.5}	160.6	22,109.5	22,270.1
SO ₂	0.0	0.0	0.0
VOC	0.0	0.0	0.0
CO	0.0	0.0	0.0
NO _x	0.0	0.0	0.0
HAPs	0.0	0.0	0.0

This source modification is subject to 326 IAC 2-7-10.5(g)(4), because the modification has the potential to emit greater than or equal to 25 tons per year of PM, PM10, or PM2.5. Additionally, the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d)(1)), since it involves Title I change, which is adding a case-by-case SO₂ emission limitation under 326 IAC 7-4-11.1 that addresses the new 1-hour SO₂ standard.

Permit Level Determination – PSD or Nonattainment NSR

The Permittee has provided information as part of the application for this approval that based on Actual to Projected Actual test in 326 IAC 2-2-2(d)(3) and 326 IAC 2-3-2(c)(3) this modification at a major stationary source will not be major for Prevention of Significant Deterioration under 326 IAC 2-2 and Emission Offset under 2-3. IDEM, OAQ has not reviewed this information and will not be making any determination in this regard as part of this approval. The applicant will be required to keep records and report in accordance with Source obligation in 326 IAC 2-2-8 and 326 IAC 2-3-2.

Process Category	Project Emissions (tons/year)									
	PM	PM10	PM2.5	VOC	NO _x	CO	SO ₂	Lead	Single HAP	HAPs - Total
NEW EMISSION UNITS										
Limestone Unloading to Storage Silo 1	16.80	7.20	2.40	--	--	--	0.00	--	--	--
Limestone Unloading to Storage Silo 1				--	--	--	0.0	--	--	--
TOTAL PTE FROM NEW UNITS	16.80	7.20	2.40	--	--	--	0.00	--	--	--
ACTUAL TO PROJECTED ACTUAL (ATPA) -MODIFIED EMISSION UNITS										
Baseline Actual Emissions (tons/year)										
Kiln #4	7.16	7.16	7.16	--	--	--	245.1	--	--	--
Kiln #5	22.32	22.32	22.32	--	--	--	2,154.4	--	--	--
Total Baseline Actual Emissions	29.48	29.48	29.48	--	--	--	2,399.5	--	--	--
Projected Future Actual Emissions (tons/year)										
Kiln ID K4	8.86	8.86	8.86	--	--	--	122.6	--	--	--
Kiln ID K5	27.62	27.62	27.62	--	--	--	1,077.2	--	--	--
Total Future Actual Emissions (tons/year)	36.47	36.47	36.47	--	--	--	1,199.7	--	--	--
PTE Change of Modified Units	7.0	7.0	7.0	--	--	--	0.0	--	--	--
Total Emission Increase from the Project (tons/year)	23.80	14.20	9.40	--	--	--	0.0	--	--	--
PSD Significant Levels	25	15	10	40	40	100	40	0.6	NA	NA

*PM_{2.5} listed is direct PM_{2.5}.

Based on this analysis, this modification will not be major for Prevention of Significant Deterioration under 326 IAC 2-2-1 for PM, PM10 and dPM_{2.5} and 326 IAC 2-1.1-5 (Nonattainment NSR) for SO₂.

Federal Rule Applicability Determination

New Source Performance Standards:

- (a) 40 CFR Part 60, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants

The units (crushers, screens and conveyors) at the source that are used for processing shale were determined to be subject to this rule. The source will continue to comply with this NSPS, Subpart OOO.

The proposed two (2) new storage bins are not subject to NSPS, Subpart OOO because these bins are not used to store shale, the nonmetallic mineral being processed by the source. The proposed bins will store the limestone used in controlling SO2 emissions for Kilns #4 and #5.

- (b) There are no other New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

National Emission Standards for Hazardous Air Pollutants

- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) applicable to this proposed modification and to the existing source.

Compliance Assurance Monitoring

- (d) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

- (1) has a potential to emit before controls equal to or greater than the Part 70 major source threshold for the pollutant involved;
- (2) is subject to an emission limitation or standard for that pollutant; and
- (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each new or modified emission unit involved:

CAM Applicability Analysis							
Emission Unit	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (ton/yr)	Controlled PTE (ton/yr)	Part 70 Major Source Threshold (ton/yr)	CAM Applicable (Y/N)	Large Unit (Y/N)
*Kiln #4 (SO ₂)	Limestone Injection	Y	1,095	548	100	Y	Y
*Kiln #5 (SO ₂)	Limestone Injection	Y	2,597	1,299	100	Y	Y
Limestone Storage Silo #1 (PM)	Bin Vent Filter	Y	229	0.65	100	Y	N
Limestone Storage Silo #1 (PM10)	Bin Vent Filter	Y	80.32	0.36	100	N	N

CAM Applicability Analysis							
Emission Unit	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (ton/yr)	Controlled PTE (ton/yr)	Part 70 Major Source Threshold (ton/yr)	CAM Applicable (Y/N)	Large Unit (Y/N)
Limestone Storage Silo #1 (PM2.5)	Bin Vent Filter	Y	80.32	0.36	100	N	N
limestone Storage Silo #2 (PM)	Bin Vent Filter	Y	229	0.65	100	Y	N
limestone Storage Silo #2 (PM10)	Bin Vent Filter	Y	80.32	0.36	100	N	N
limestone Storage Silo #2 (PM2.5)	Bin Vent Filter	Y	80.32	0.36	100	N	N

* Injecting limestone to existing Kilns, ID K4 and K5 is a modification to the process operation of the these kilns, Now that these kilns are employing controls they will now be subject to CAM.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to the modified Kiln #4 and Kiln #5 for SO₂ upon issuance of the modification. A CAM plan has been submitted and the Compliance Determination and Monitoring Requirements section includes a detailed description of the CAM requirements.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to each of the limestone storage bins for PM emissions. These bins are not subject to CAM for PM10 and PM2.5 emissions. A CAM plan has been submitted and the Compliance Determination and Monitoring Requirements section includes a detailed description of the CAM requirements..

State Rule Applicability Determination

326 IAC 2-1.1-5 (Nonattainment New Source Review)

Nonattainment New Source Review applicability is discussed under the Permit Level Determination – PSD and Emission Offset section.

326 IAC 2-2 (PSD)

The source has been in operation prior to the promulgation of the Emission Offset Rules (326 IAC 2-3) on December 21, 1976 and PSD Rules (326 IAC 2-2) on August 7, 1977. The source is an existing major source under PSD. Therefore, all modifications made after December 21, 1976 and August 7, 1977 were reviewed under the PSD or Emission Offset Rules. The source has minor SO₂, NO_x (D.2.1), PM and PM10 (D.5.1) minor limits under PSD and Emission Offset Rules but it has never gone through major review.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

This rule applies to any owner or operator who constructs or reconstructs a major source of hazardous air pollutants (HAP), as defined in 40 CFR 63.41, after July 27, 1997, including owners or operators with permit applications pending with the department on the effective date of this section, shall comply with the requirements of this section, except as specifically specified in this rule. This section does not apply to an owner or operator that has received all necessary permits for the construction or reconstruction before July 27, 1997. On and after June 29, 1998, this section is intended to implement Section 112(g)(2)(B) of the Clean Air Act (CAA). Subsection

(c)(3)(E) and (c)(3)(I) of this rule shall not apply to an owner or operator that has received all necessary permits for the construction or reconstruction before June 29, 1998.

The existing Kiln #4 was constructed in 1962 and modified in 1999. This kiln emits greater than 10 tons per year for single HAP (see Page 3 of 26 TSD App A spreadsheet for TV Renewal T109-33622-00007). Although this kiln was modified in 1999, which is after the applicability date of July 27, 1997, of this rule, this modification did not qualify as a "reconstruction" since the capital cost of adding the components to have the capability of burning No. 4 fuel oil did not intuitively exceed 50% of the fixed capital cost of a comparable construction of a new kiln.

Kiln #5, constructed in 1966, emits greater than 10 tons per year for single HAP (see Page 3 of 26 TSD App A spreadsheet for TV Renewal T109-33622-00007). The proposed limestone injection system to control the SO₂ for Kiln #4 and Kiln #5 will not involve a physical modification or reconstruction to the kilns. Therefore, these kilns will not be subject to 326 IAC 2-4.1 due to this source modification.

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

(a) Pursuant to 326 IAC 6-3-2, the particulate emissions from the following emission units shall not exceed the pounds per hour when operating at a process weight rate listed in the table below.

Emission Units	Process Weight Rate (tons/hour)	Particulate Emissions Limit (pound/hour)	Uncontrolled PTE (lb/hr)	Limited and Controlled PTE (lb/hr)
Limestone Unloading to Storage Silo 1	16.67	27.0	52.3	3.84
Limestone Unloading to Storage Silo 1	16.67	27.0	52.3	

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

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:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and } P = \text{process weight rate in tons per hour}$$

The bin vent filters shall be in operation at all times the storage silos 1 and 2 are being loaded with limestone, in order to comply with this limit.

(b) The existing Kilns #4 and #5 particulate emission limitations under 326 IAC 6-3-2 will remain the same, since these limitations were based on the each kiln's worst case process weight rate in tons/hour.

326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations)

The existing Kiln #4 and Kiln #5 are currently subject to a limit of 1.6 pound per million British thermal units when burning fuel oil No. 4.

326 IAC 7-4-11.1 (Morgan County Sulfur Dioxide Emission Limitations)

The existing Kiln #4 and Kiln #5 are currently subject to a limit of 6.0 pound per million British thermal units (lb/MMBtu) when burning fuel coal and processing of shale. This SO₂ limitation will remain effective through December 31, 2016. This SO₂ limit of 6.0 lb/MMBtu was modified to the following limitations to address the SO₂ 1-hour standard:

Kilns #4 and Kiln #5 shall be limited to a minimum control efficiency of 50% or 2.5 lbs/MMBtu, whichever is less stringent, but shall not exceed 6.0 lbs/MMBtu. These limitations will take effect on January 1, 2017.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a 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 Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in 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.

Compliance Determination and Monitoring Requirements applicable to Kiln #4 and Kiln #5 for SO₂ compliance under 326 IAC 7-4-11.1 are as follows:

Kiln #4 and Kiln #5:

Emission Unit	Pollutant	Timeframe for Testing	Control Device	Frequency of Testing	Requirement
Kiln #4	SO ₂	Not later than one hundred and eighty (180) days from the issuance of this permit (SSM No109-36721-0007	Lime Injection	Every 5 years	326 IAC 2-2 326 IAC 7-1.1-2 326 IAC 7-4-11.1
Kiln #5	SO ₂	Not later than one hundred and eighty (180) days from the issuance of this permit (SSM No109-36721-0007	Lime Injection	Every 5 years	326 IAC 7-1.1-2 326 IAC 7-4-11.1

- (a) Monthly fuel sampling and analysis data shall be collected according to 326 IAC 7-2-1 for both coal and shale.
- (b) Compliance with the control efficiency limit in 326 IAC 7-4-11.1(a)(2) shall be based on measured sulfur content in the shale and fuel compared to the outlet SO₂ concentration determined by a stack test pursuant to 326 IAC 3-6. The shale and fuel sulfur content measurements for this purpose shall reflect a representative sample of the material fed into the kiln during each run of the stack test.

Existing Compliance Determination and Monitoring Requirements applicable to Kiln #4 and Kiln #5 for Particulate compliance will remain.

Visible Emissions Notations

Emission Unit	Parameter	Frequency	Range/Value	Excursions and Exceedances	Requirement
two (2) limestone storage silos (bin vent filter)	Visible Emissions	Daily	Normal - Abnormal	Response Steps	326 IAC 2-2

Lime stone Injection System Monitoring

Emission Unit	Control	Parameter	Frequency	Excursions and Exceedances	Requirement
Two (2) rotary kilns (IDs K4 and K5)	limestone injection System	SO ₂	Continuous	Response Steps	326 IAC 7-1.1-2 326 IAC 7-4-11.1 40 CFR 64

NA: Not applicable.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T109-33622-00007. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

- (a) Section A.1 has been modified to include the source's SIC code description.
- (b) Section A.2 has been updated to include the new emission units and proposed changes in this permitting action.
- (c) IDEM added the rule citation 326 IAC 2-7-5(1) to the Compliance Determination, NSPS, NESHAP Requirements and added rule cites in condition titles throughout the entire permit.
- (d) The Part 70 Operating Permit terms and conditions have been updated and clarified to reflect the updated version of the rules and reflect the source major PSD status and typographical errors have been corrected throughout the permit.
- (e) Kiln #3 has been deleted from the permit since it was required to cease operation to meet the Indiana Rule, 326 IAC 7-4-11. All conditions and applicable requirements for Kiln #3 have been deleted.
- (f) Section E.1 has been amended to change the Section Title for clarification purposes.

Changes to Section A:

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary shale processing plant producing lightweight expanded shale aggregate.

Source Address:	6618 Tidewater Road, Mooresville, Indiana 46158
General Source Phone Number:	317-831-0710
SIC Code:	3295 (Minerals and Earths, Ground or Otherwise Treated)
County Location:	Morgan
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Rules and Emission Offset Rules Major Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]
[326 IAC 2-7-5(14)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) pre-kiln shale processing operation, identified as pre-kiln, constructed in 1954, with a maximum capacity of 200 tons of raw shale per hour, using wet suppression of fugitive dust as control, and exhausting outside the building, and consisting of the following equipment:
 - (1) one (1) primary crusher, identified as PK1, with a maximum capacity of 200 tons of raw shale per hour,
 - (2) one (1) secondary crusher, identified as PK2, with a maximum capacity of 100 tons of raw shale per hour,
 - (3) six (6) conveyors, identified as PK3 through PK8, each with a maximum capacity of 200 tons of raw shale per hour;
- (b) ~~One (1) rotary kiln, identified as K3, constructed in 1959, with a maximum heat input of 100 MMBtu per hour burning natural gas or bituminous coal, with a maximum capacity of 20 tons of raw shale per hour, using a Peabody wet scrubber as control, and exhausting to stack ST4;~~
- (eb) one (1) rotary kiln, identified as K4, constructed in 1962, with a maximum heat input of 100 million British Thermal Units (MMBtu) per hour burning natural gas or bituminous coal, and modified in 1999 to burn No. 4 fuel oil, with a maximum capacity of 15 tons of raw shale per hour, using a Peabody wet scrubber as control, and exhausting to stack ST4;
- (dc) One (1) rotary kiln, identified as K5, constructed in 1966, with a maximum heat input of 100 MMBtu per hour burning natural gas or bituminous coal, with a maximum capacity of 30 tons of raw shale per hour, using a cloth baghouse as control, and exhausting to stack ST5;
- (ed) One (1) haydite crusher line, identified as HCR, constructed in 1962, with a maximum capacity of 100 tons of expanded shale per hour, using wet suppression of fugitive dust as control, exhausting outside the building, and consisting of the following equipment:
 - (1) one (1) primary haydite crusher, identified as HCR1, with a maximum capacity of 100 tons of expanded shale per hour,
 - (2) one (1) secondary haydite crusher, identified as HCR2, with a maximum capacity

- of 100 tons of expanded shale per hour,
 - (3) three (3) screens, identified as HCR3 through HCR5, each with a maximum capacity of 100 tons of expanded shale per hour, and
 - (4) seven (7) conveyors, identified as HCR9 through HCR15, each with a maximum capacity of 100 tons of expanded shale per hour;
- (fe) One (1) reciprocating grate clinker cooler, identified as CLNKCOOL, constructed in 1966, with a maximum capacity of 40 tons of expanded shale per hour, using a multicloner as control, and exhausting to stack ST2; and
- (gf) One (1) expanded shale aggregate crusher line, identified as ESA, constructed in 2000, with a maximum capacity of 30 tons of expanded shale per hour and consisting of the following equipment:
 - (1) one (1) expanded shale aggregate crusher, identified as ESA 1, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6,
 - (2) one (1) screen, identified as ESA 2, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6, and
 - (3) five (5) conveyors, identified as ESA 3 through ESA 7, each with a maximum capacity of 30 tons of expanded shale per hour, utilizing a water spray system on the feed conveyor as particulate control and exhausting fugitively.

[Under 40 CFR 60, Subpart OOO, the crushers, screens, and conveyors are affected facilities in a fixed nonmetallic mineral processing plant [40 CFR 60, Subpart OOO].

- (g) **One (1) limestone injection system, identified as CE-K4, with maximum rated capacity of 4,000 pounds of limestone per hour, approved in 2016 for construction to control SO2 emissions from the existing Kiln #4.**
- (h) **One (1) limestone injection system, identified as CE-K5 with maximum rated capacity of 4,000 pounds of limestone per hour, approved in 2016 for construction to control SO2 emissions from the existing Kiln #5.**
- (i) **Two (2) limestone storage silos, #1 and #2, each with storage capacity of 120 tons, controlled by bin vent filters, approved in 2016 for construction.**

Changes to Section B:

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region 5
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

B.19 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

- (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region 5
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) and (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1) and (c)(1).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(~~3637~~)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

Changes to Section C:

C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)][40 CFR 64][326 IAC 3-8]

- (a) **For new units:**

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.

(b) For existing units:

Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance ~~or of initial start-up, whichever is later,~~ to begin such monitoring. If, due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance ~~or of initial start-up, whichever is later,~~ the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

~~Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.~~

- ~~(bc)~~ For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
- ~~(ed)~~ For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

C.13 Risk Management Plan [326 IAC 2-7-5(42 11)] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.14 Response to Excursions or Exceedances [40 CFR 64][326 IAC 3-8][326 IAC 2-7-5]
[326 IAC 2-7-6]

(II)

- (a) CAM Response to excursions or exceedances.

- (c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a ~~QIP~~ **Quality Improvement Plan (QIP)**. The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.
- (d) Elements of a QIP:
The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).
- (e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.
- (f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(~~a~~)(2c) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:
- (1) Failed to address the cause of the control device performance problems;
or
 - (2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.
- (h) CAM recordkeeping requirements.
- (1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(~~a~~)(2c) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6-3(b)(1)]
~~In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), starting in 2004 and every three (3) years thereafter~~ Pursuant to 326 IAC 2-6-3(b)(1), starting in 2004 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(~~32 33~~) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]
[326 IAC 2-2][**326 IAC 2-3**] [40 CFR 64][326 IAC 3-8]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

On and after the date by which the Permittee must use monitoring that meets the requirements of 40 CFR Part 64 and 326 IAC 3-8, the Permittee shall submit CAM reports to the IDEM, OAQ.

A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and the following information, as applicable:

- (1) **Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;**
- (2) **Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and**
- (3) **A description of the actions taken to implement a QIP during the reporting period as specified in Section C-Response to Excursions or Exceedances. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.**

The Permittee may combine the Quarterly Deviation and Compliance Monitoring Report and a report pursuant to 40 CFR 64 and 326 IAC 3-8.

- (b) The address for report submittal is:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Changes to Section D.2:

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- ~~(b)~~ One (1) rotary kiln, identified as K3, constructed in 1959, with a maximum heat input of 100 MMBtu per hour burning natural gas or bituminous coal, with a maximum capacity of 20 tons of raw shale per hour, using a Peabody wet scrubber as control, and exhausting to stack ST4;
- ~~(eb)~~ one (1) rotary kiln, identified as K4, constructed in 1962, with a maximum heat input of 100 million British Thermal Units (MMBtu) per hour burning natural gas or bituminous coal, and modified in 1999 to burn No. 4 fuel oil, with a maximum capacity of 15 tons of raw shale per hour, using a Peabody wet scrubber as control, and exhausting to stack ST4;
- ~~(dc)~~ One (1) rotary kiln, identified as K5, constructed in 1966, with a maximum heat input of 100 MMBtu per hour burning natural gas or bituminous coal, with a maximum capacity of 30 tons of raw shale per hour, using a cloth baghouse as control, and exhausting to stack ST5;
- (g) One (1) limestone injection system, identified as CE-K4, with maximum rated capacity of 4,000 pounds of limestone per hour, approved in 2016 for construction to control SO₂ emissions from the existing Kiln #4.**
- (h) One (1) limestone injection system, identified as CE-K5 with maximum rated capacity of 4,000 pounds of limestone per hour, approved in 2016 for construction to control SO₂ emissions from the existing Kiln #5.**
- (i) Two (2) limestone storage silos, #1 and #2, each with storage capacity of 120 tons, controlled by bin vent filters, approved in 2016 for construction.**

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

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

D.2.1 Prevention of Significant Deterioration (PSD) Minor Limits [326 IAC 2-2]

- (a) In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the Permittee shall comply with the following:**
 - ~~(a1)~~ The use of No. 4 fuel oil in rotary kiln K4 shall be limited based on 0.5% sulfur content to less than 0.99 million gallons per twelve (12) month consecutive period, with compliance determined at the end of each month period.
 - ~~(b 2)~~ The PM-10 emissions from #4 fuel oil use shall be limited to less than 3.42 pounds per hour.

Compliance with these limits shall ensure that the potential emissions of SO₂ and NO_x are each limited to less than 40 tons per year, and the PM₁₀ emissions are limited to less than 15 tons per year and render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to 1999 modification.

- (b) In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the Permittee shall comply with the following:**
 - (1) Limestone throughput to the two (2) limestone storage silos shall be limited to 24,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month period.**

- (2) The Particulate Matter (PM) emissions from the two (2) limestone storage silos shall not exceed 1.4 pound per ton (lb/ton) of limestone loaded.**
- (3) The PM10 emissions from the two (2) limestone storage silos shall not exceed 0.60 pound per ton (lb/ton) of limestone loaded.**
- (4) The PM2.5 emissions from the two (2) limestone storage silos shall not exceed 0.20 pound per ton (lb/ton) of limestone loaded.**

Compliance with these limits from the two (2) limestone storage silos shall ensure that PM emissions are less than 25 tons per year, PM10 are less than 15 tons per year and PM2.5 are less than 10 tons per year, which render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the 2016 modification (SSM 109-36721-00007).

D.2.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from each of the following:

- ~~(a) The one (1) rotary kiln (ID K3) shall not exceed 30.51 pounds per hour when operating at a process weight rate of 40,000 pounds per hour of crushed shale (equivalent to 20 tons per hour).~~
- (ba) The one (1) rotary kiln (ID K4) shall not exceed 25.16 pounds per hour when operating at a process weight rate of 30,000 pounds per hour of crushed shale (equivalent to 15 tons per hour).**
- (e b) The one (1) rotary kiln (ID K5) shall not exceed 40.04 pounds per hour when operating at a process weight rate of 60,000 pounds per hour of crushed shale (equivalent to 30 tons per hour).**
- (c) The limestone unloading to Storage Silo #1 shall not exceed 27.0 pounds per hour when operating at a process weight rate of 16.67 tons per hour.**
- (d) The limestone unloading to Storage Silo #2 shall not exceed 27.0 pounds per hour when operating at a process weight rate of 16.67 tons per hour.**

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation 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

D.2.3 Sulfur Dioxide (SO₂) Emission Limitations [326 IAC 7-1.1-2] [326 IAC 7-4-11.1]

- (a) Pursuant to 326 IAC 7-1.1 (SO₂-Emissions Limitations), the Permittee shall comply with the following:**
 - (1) The sulfur dioxide emissions from the one (1) rotary kiln (ID K4) when burning No. 4 fuel oil shall be limited to 1.6 pounds per MMBtu of heat input from No. 4 fuel oil.**
- (b) Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations), prior to January 1, 2017, the Permittee shall comply with the following:**

- (a) (1) The sulfur dioxide emissions from each of the ~~three (3)~~ ~~three (3)~~ **two (2)** rotary kilns (IDs ~~K3~~, K4 and K5) when burning coal, shall not exceed six (6) pounds per MMBtu of coal combustion.
- ~~(b) The sulfur dioxide emissions from the one (1) rotary kiln (ID K4) when burning No. 4 fuel oil shall be limited to 1.6 pounds per MMBtu of heat input from No. 4 fuel oil.~~
- (c) **Pursuant 326 IAC 7-4-11.1, (Morgan County Sulfur Dioxide (SO₂) Emissions Limitations), on and after January 1, 2017, the Permittee shall comply with the following:**
- (1) **The Sulfur dioxide emissions from kiln ID K4 shall be reduced by a minimum control efficiency of 50% or to 2.5 pounds per million British thermal units (lbs/MMBtu) of heat input, whichever is less stringent.**
- (2) **The Sulfur dioxide emissions from kiln, ID K5 shall be reduced by a minimum control efficiency of 50% or to 2.5 lbs/MMBtu of heat input, whichever is less stringent.**
- (3) **The sulfur dioxide emissions above from each of the two (2) rotary kilns (IDs K4 and K5), shall not exceed six (6) pounds per MMBtu of heat input.**

These emission limits apply to sulfur dioxide emissions from both the combustion of coal and the processing of shale.

D.2.4 Preventive Maintenance Plan ~~[326 IAC 1-6-3]~~ **[326 IAC 2-7-5(12)]**

A Preventive Maintenance Plan (PMP) is required for ~~this unit~~ **these units** and ~~its~~ **their** control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements **[326 IAC 2-7-5(1)]**

D.2.5 Testing Requirements ~~[326 IAC 2-7-6(1),(6)]~~ **[326 IAC 2-7-5(1)]** [326 IAC 2-1.1-11]

- (a) In order to determine compliance with Condition D.2.2, the Permittee shall perform PM testing on the two (2) rotary kilns (K4 and K5), utilizing methods as approved by the Commissioner. This test 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 the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.
- ~~(b) Within ninety (90) days after the initial start up of the unit, In order to determine compliance with Condition D.2.2, the Permittee shall perform PM testing on Kiln #3, utilizing methods as approved by the Commissioner. This test 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 the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.~~
- (eb) In order to determine compliance with Condition D.2.1(b), the Permittee shall perform PM₁₀ testing on kiln K4 within one hundred and eighty (180) days, when burning oil, utilizing methods as approved by the Commissioner. This test 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 the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

- (c) **Within sixty (60) days after the installation of the limestone injection systems but not later than January 1, 2017, the Permittee shall perform SO₂ testing on each of the two (2) rotary kilns, identified as K4 and K5, to establish the limestone injection rate that will demonstrate compliance with Condition D.2.3(c), utilizing methods as approved by the Commissioner. This test 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 the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.**
- (d) **Compliance with the control efficiency limits in Condition D.2.3(c) shall be based on measured sulfur dioxide in the shale and fuel compared to the outlet sulfur dioxide concentration measured during SO₂ testing. The shale and fuel sulfur content measurements for this purpose shall reflect a representative sample of the material fed into each kiln during each run of the stack test.**

D.2.6 Particulate Control [~~326 IAC 2-7-6(6)~~] [326 IAC 2-7-5(1)]

In order to comply with condition D.2.2:

- (a) The wet scrubber for particulate control shall be in operation and control emissions from the ~~two (2)~~ rotary kilns (~~K3 and K4~~) at all times that the ~~two (2)~~ rotary kilns (~~K3 and K4~~) ~~are is~~ in operation.
- (b) The baghouse for particulate control shall be in operation and control emissions from the one (1) rotary kiln at all times that the one (1) rotary kiln (K5) is in operation.
- (c) **The baghouse/bin vent filter for particulate control shall be in operation and control emissions from the two (2) limestone storage silos all the time that limestone is being loaded.**
- (ed) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.2.7 Broken or Failed Bag or Scrubber Detection [326 IAC 2-7-5(1)] [40 CFR 64]

- (a) For a single compartment units controlling emissions from a process operated continuously, a failed unit and the associated process will be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shutdown no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency provisions of this permit (Section B - Emergency Provisions).

Compliance with the above monitoring conditions shall also satisfy the requirements of 40 CFR 64, Compliance Assurance Monitoring for the three rotary kilns (K4 and K5).

D.2.8 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 2-7-5(1)]

Pursuant to 326 IAC 7-2, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed six (6.0) pounds per MMBtu when burning coal **at kilns, K4 and K5**. Compliance shall be determined utilizing the following options:

- (a) Sampling and analyzing the coal using one of the following procedures:
 - (1) Minimum Coal Sampling Requirements and Analysis Methods:
 - (A) The coal sample acquisition point shall be at a location where representative samples of the total coal flow to be combusted by the facility or facilities may be obtained. A single as-bunkered or as-burned sampling station may be used to represent the coal to be combusted by multiple facilities using the same stockpile feed system;
 - (B) Coal shall be sampled at least one (1) time per day;
 - (C) Minimum sample size shall be five hundred (500) grams;
 - (D) Samples shall be composited and analyzed at the end of each calendar month;
 - (E) Preparation of the coal sample, heat content analysis, and sulfur content analysis shall be determined pursuant to 326 IAC 3-7-2(c), (d), (e); or
 - (2) Sample and analyze the coal pursuant to 326 IAC 3-7-3; or
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions ~~the boiler~~ **from kilns, K4 and K5**, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6, which is conducted with such frequency as to generate the amount of information required by (a) or (b) above. [326 IAC 7-2-1(b)]

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

D.2.9 Sulfur Dioxide Control [326 IAC 2-7-5(1)]

In order to demonstrate compliance with Condition D.2.3, the limestone injection system for sulfur dioxide control shall be in operation and control emissions from the two (2) rotary kilns (K4 and K5) at all times that the two (2) rotary kilns (K4 and K5) are in operation unless the permittee can demonstrate that uncontrolled sulfur dioxide emissions (accounting for sulfur contained in the shale and sulfur contained in fuel burned in the kilns) is below 2.5 pounds per million Btu (MMBtu) of heat input.

D.2.10 Sulfur Content [326 IAC 2-7-5(1)]

Pursuant to 326 IAC 7-4.11.1, the Permittee shall perform monthly sampling and analysis according to 326 IAC 7-2-1 for the sulfur content of shale to be processed for each upcoming months. The sampling and analysis of shale shall be performed using the following procedures:

- (a) **Shale Sampling Requirements and Analysis Methods:**
 - (1) **A composite sample shall be collected of the shale derived from a gridded area of the mine where the extraction will take place over each calendar month.**
 - (2) **A minimum of eight (8) evenly spaced samples shall be collected for each monthly sampling;**
 - (3) **Minimum sample size shall be five hundred (500) grams;**
 - (4) **Samples shall be composited and analyzed prior to processing the shale;**

(5) Preparation of the shale sample and shale sulfur content analysis shall be determined pursuant to 326 IAC 3-7-2(c), (d), (e); and

(b) Sample and analyze the shale pursuant to 326 IAC 3-7-3.

D.2.11 Limestone Injection Rate [326 IAC 2-7-5(1)]

(a) In order to demonstrate compliance with the SO₂ emissions limits in Condition D.2.3(c), the limestone used to control sulfur dioxide (SO₂) emissions from kilns ID K4 and ID K5 shall be injected into these kilns at a feed rate established during the latest stack test.

(b) In order to demonstrate compliance with the SO₂ emission limits in Condition D.2.3(c), the limestone shall be injected at the feed rate established during the latest stack test until a limestone feed rate is established, based on the monthly testing of the sulfur content of the shale to be processed and vendor data on fuel to be combusted. The limestone injection rate shall be calculated using the following equation when complying with SO₂ limit through 50% control allowed in Condition D.2.3(c):

$$L_c = [(C_s * 38 * C_{fr} / 2000) + (S_s / 100 * 2000 * (64 / 32))] * 0.5 * L_r * S_{fr}$$

Where

L_c = Calculated limestone injection rate (lb/hour)

C_s = Coal sulfur content (%)

C_{fr} = Coal feed rate (lb coal/ton shale processed)

S_s = Shale sulfur content (%)

L_r = Limestone injection rate (lb limestone/lb SO₂ removed based on compliance test)

S_{fr} = Shale feed rate (tons per hour)

Note: 38S lb/ton coal (AP-42 Table 1.1-3)

64 lb/lb-mole (molecular weight of SO₂)

32 lb/lb-mole (molecular weight of sulfur)

0.5 is for achieving SO₂ limit through 50% control

(c) In order to demonstrate compliance with the SO₂ emission limits in Condition D.2.3(c), the limestone shall be injected at the feed rate established during the latest stack test until a limestone feed rate is established, based on the monthly testing of the sulfur content of the shale to be processed and vendor data on fuel to be combusted. The limestone injection rate shall be calculated using the following equation when complying with SO₂ emission limit of less than 2.5 lb/MMBtu allowed in Condition D.2.3(c):

$$L_c = [(C_s * 38 * C_{fr} / 2000) + (S_s / 100 * 2000 * (64 / 32))] * [(R_s - 2.5) / R_s] * L_r * S_{fr}$$

Where

L_c = Calculated limestone injection rate (lb/hour)

C_s = Coal sulfur content (%)

C_{fr} = Coal feed rate (lb coal/ton shale processed)

S_s = Shale sulfur content (%)

R_s = Uncontrolled SO₂ emission rate (lb/mmBtu)

L_r = Limestone injection rate (lb limestone/lb SO₂ removed based on compliance test)

S_{fr} = Shale feed rate (tons per hour)

Note: 38S lb/ton coal (AP-42 Table 1.1-3)

64 lb/lb-mole (molecular weight of SO₂)

32 lb/lb-mole (molecular weight of sulfur)

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

D.2.9 12 Visible Emissions Notations [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)] [40 CFR 64]

- (a) Visible emission notations of ~~the two (2) rotary kilns (IDs K3 and K4) wet scrubber stack (S/V ID ST4), and the one (1) rotary kiln (ID K5) baghouse stack (S/V ID ST 5)~~ **and the two (2) limestone storage silos stack exhausts** shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Failure to take response steps shall be considered a deviation from this permit. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition.

~~Compliance with the above monitoring conditions shall also satisfy the requirements of 40 CFR 64, Compliance Assurance Monitoring for the three rotary kilns (K3, K4 and K5).~~

D.2.4013 Wet Scrubber and Baghouse Parametric Monitoring [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)] [40 CFR 64]

- (a) ~~The Permittee shall record the pressure drop across the wet scrubber used in conjunction with the two (2) rotary kilns (IDs K3 and K4), at least once per day when the processes are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the wet scrubber is outside the normal pressure drop range of 6.0 to 10.0 inches of water, and the flow rate for scrubbing liquid is below the normal flow rate of 100 gallons per minute, or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a violation of this permit.~~

The Permittee shall record the pressure drop across the wet scrubber used in conjunction with the rotary kiln (ID K4), at least once per day when the process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the wet scrubber is outside the normal range, the Permittee shall take a reasonable response. The normal range is 6.0 to 10.0 inches of water and the flow rate for scrubbing liquid is 100 gallons per minute, unless a different upper-bound or lower-bound value for a range and liquid flow rate are determined during the latest compliant stack test. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

- (b) ~~The Permittee shall record the pressure drop across the baghouse used in conjunction with the the one (1) rotary kiln (ID K5), at least once per day when the process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a violation of this permit.~~

The Permittee shall record the pressure drop across the baghouse used in conjunction with the one (1) rotary kiln (ID K5), at least once per day when the process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range, the Permittee shall take reasonable response. . The normal range for this unit is a pressure drop between 3.0 and 8.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest compliant stack test. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

~~Compliance with the above monitoring conditions shall also satisfy the requirements of 40 CFR 64, Compliance Assurance Monitoring for the three rotary kilns (K3, K4 and K5).~~

D.2.14 Limestone Injection System Parametric Monitoring [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)] [40 CFR 64]

The Permittee shall record the shale process throughput rate, coal throughput rate and limestone injection rate to the two (2) rotary kilns (IDs K4 and K5), continuously when the processes are in operation and limestone injection is necessary to achieve the sulfur dioxide emission limits contained in Condition D.2.3. "Continuously" means one reading every fifteen (15) minutes. When for any one reading the limestone injection rate is below the level determined necessary to comply with the sulfur dioxide emission limits contained in Condition D.2.3(c), pursuant to D.2.11, the Permittee shall take reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the feed rate shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once annually.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.145 Record Keeping Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

- (a) To document the compliance status with Conditions D.2.3(b) and D.2.8, the Permittee shall maintain records in accordance with (1) through (4) below when burning coal. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO₂ emission limits established in Conditions D.2.3(b) and D.2.8.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual coal usage since last compliance determination period;

- (3) Sulfur content, heat content, and ash content; and
 - (4) Sulfur dioxide emission rates.
- (b) To document the compliance status with Condition D.2.1(a), the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to (a), establish compliance with the NO_x and SO₂ emission limits established in Condition D.2.1.
- (1) Calendar dates covered in the compliance determination period;
 - (2) Actual #4 fuel oil usage since last compliance determination period;
 - (3) Sulfur content and heat content,
 - (4) Sulfur dioxide emission rates; and
 - (5) Vendor analysis of #4 fuel oil and #4 fuel oil supplier certification.
- (c) Pursuant to 326 IAC 3-7-5(a), the owners or operators of sources with total coal-fired capacity greater than or equal one hundred (100) MMBtu per hour actual heat input shall develop a standard operating procedure (SOP) to be followed for sampling, handling, analysis, quality control, quality assurance, and data reporting of the information collected pursuant to 326 IAC 3-7-2 through 326 IAC 3-7-4. In addition any revision to the SOP shall be submitted to IDEM, OAQ.
- (d) To document the compliance status with Condition ~~D.2.9~~ **D.2.12- Visible Emission Notation**, the Permittee shall maintain records of visible emission notations of the ~~two (2)~~ rotary kilns (IDs ~~K3 and K4~~) wet scrubber stack (S/V ID ST4), ~~and the one (1)~~ rotary kiln (ID K5) baghouse stack (S/V ID ST 5) **and the two (2) limestone storage silos stack exhausts** once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (e) To document the compliance status with Condition ~~D.2.10~~ **D.2.13(a)- Wet Scrubber and Baghouse Parametric Monitoring**, the Permittee shall maintain records once per day of the **scrubber pressure drop and liquid flow rate**. The Permittee shall include in its daily record when a pressure drop reading **and liquid flow rate** are not taken and the reason for the lack of a pressure drop **and liquid flow rate** readings (e.g. the process did not operate that day).
- (f) **To document the compliance status with Condition D.2.13(b)- Wet Scrubber and Baghouse Parametric Monitoring, the Permittee shall maintain records once per day of the baghouse pressure drop. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).**
- (g) **To document the compliance status with Condition D.2.3(c) and Condition D.2.14, the Permittee shall record the following:**
- (1) **Maintain records in accordance with (A) through (B). Records maintained for (A) through (B) shall be taken continuously and sufficient to establish compliance with the SO₂ emission limits established in Condition D.2.3(c).**
 - (A) **Type and quantity of shale processed; and**
 - (B) **Injection feed rate of limestone in pounds per hour.**

- (2) Maintain monthly records of the following**
 - (A) Quantity of coal burned;**
 - (B) Monthly composite sample analyses of coal sulfur content and heat content; and**
 - (C) Monthly composite sample analysis of shale sulfur content.**
- (h) To document the compliance status with Condition D.2.1(b)(1), the Permittee shall maintain monthly records of the limestone loaded into the two (2) limestone storage silos.**
- (f i) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.**

D.2.126 Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

- (a) A quarterly summary of the information to document the compliance status with Condition ~~D.2.1~~ D.2.1(a)(1) shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(3435). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.**
- (b) A quarterly summary of the information to document the compliance status with Condition D.2.1(b)(1) shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.**

Changes to Section E.1:

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS NSPS

<p>Emissions Unit Description:</p> <p>***</p> <p>(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)</p>
--

New Source Performance Standards (NSPS) ~~[326 IAC 12-1][40 CFR 60]~~ [326 IAC 2-7-5(1)]

E.1.1 General Provisions Relating to New Source Performance Standards Subpart 000 [326 IAC 12-1] [40 CFR Part 60, Subpart A]

- (a) Pursuant to 40 CFR 60 Subpart 000, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, as specified in Table 1 of 40 CFR Part 60, Subpart 000 in accordance with schedule in 40 CFR 60 Subpart 000. Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission units listed above, except as otherwise specified in 40 CFR Part 60, Subpart 000.**

(b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.1.2 ~~Standards of Performance for Nonmetallic Mineral Processing Plants NSPS~~ [40 CFR 60, Subpart 000]

~~The emission units included in the expanded shale aggregate crusher line identified as ESA, that are involved in a fixed nonmetallic mineral processing operation, shall comply with the following provisions of 40 CFR Part 60, Subpart 000 (included as Attachment A of this permit):~~

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart 000 (included as Attachment A to the operating permit), which are incorporated by reference as 326 IAC 12.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

Part 70 Quarterly Report

Source Name: Hydraulic Press Brick Company
Source Address: 6618 Tidewater Road, Mooresville, Indiana 46158
Part 70 Permit No.: T109-33622-00007
Facility: Limestone Storage Silos #1 and #1
Parameter: PM, PM10 and PM2.5
Limit: 24,000 tons per twelve month - Limestone throughput to the Limestone Storage Silos #1 and #1

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 109-36721-00007 and Significant Permit Modification No. 109-36723-00007. The staff recommends to the Commissioner that this Part 70 Significant Source and Significant Permit Modification be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Aida DeGuzman at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-4972 or toll free at 1-800-451-6027 extension 3-4972.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

Company Name: Hydraulic Press Brick Co.
Source Address: 6618 Tidewater Road, Mooresville, Indiana 46158
SSM No.: 109-36721-00007
SPM No.: 109-36723-00007
Reviewer: Aida DeGuzman

326 IAC 2-7-10.5 Applicability

Process Category	UNCONTROLLED PTE FROM NEW EMISSION UNITS (tons/year)								
	PM	PM10/PM2.5	VOC	NO _x	CO	SO ₂	Lead	HAPS - Individual	HAPS - Total
New Equipment									
Limestone Unloading to Storage Silo 1	229.22	80.30	--	--	--	0.00	--	--	--
Limestone Unloading to Storage Silo 2	229.22	80.30	--	--	--	0.00	--	--	--
TOTAL PTE FROM NEW UNITS	458.44	160.60	--	--	--	0.00	--	--	--
Modified Emission Units									
Kiln #4 Before Modification	31,750.0	31,750.0	--	--	--	1,095.0	--	--	--
Kiln #5 Before Modification	63,500.0	63,500.0	--	--	--	2,597.3	--	--	--
Total PTE Before Modification to Kilns	95,250.1	95,250.1	--	--	--	3,692.3	--	--	--
Kiln #4 After Modification	42,804.8	42,804.8	--	--	--	1,095.00	--	--	--
Kiln #5 After Modification	74,554.8	74,554.8	--	--	--	2,597.34	--	--	--
Total PTE After Modification to Kilns	117,359.6	117,359.6	--	--	--	3,692.3	--	--	--
PTE CHANGE OF MODIFIED UNITS	22,109.6	22,109.6	--	--	--	0.0	--	--	--
Total Emission Increase from the Project (tons/year)	22,568.0	22,270.2	--	--	--	0.0	--	--	--

SO2 Before and After Modification to Kilns operation will not change, because the addition of limestone into the kilns will only result in particulate emissions increase.

326 IAC 2-2 Applicability

Process Category	CONTROLLED / LIMITED PTE FROM NEW EMISSION UNITS (tons/year)									
	PM	PM10	PM2.5	VOC	NO _x	CO	SO ₂	Lead	HAPS - Individual	HAPS - Total
NEW EMISSION UNITS										
Limestone Unloading to Storage Silo 1	16.80	7.20	2.40	--	--	--	0.00	--	--	--
Limestone Unloading to Storage Silo 2				--	--	--	0.00	--	--	--
TOTAL PTE FROM NEW UNITS	16.80	7.20	2.40	--	--	--	0.00	--	--	--
ACTUAL TO PROJECTED ACTUAL (ATPA) - MODIFIED EMISSION UNITS										
Kiln #4 Baseline Actual Emissions (tons/year)	7.16	7.16	7.16	--	--	--	245.1	--	--	--
Kiln #5 Baseline Actual Emissions (tons/year)	22.32	22.32	22.32	--	--	--	2,154.4	--	--	--
Total Baseline Actual (tons/year)	29.48	29.48	29.48	--	--	--	2,399.5	--	--	--
Kiln #4 Projected Future Actual Emissions (tons/year)	8.86	8.86	8.86	--	--	--	122.6	--	--	--
Kiln #5 Projected Future Actual Emissions	27.62	27.62	27.62	--	--	--	1,077.2	--	--	--
Total Future Projected Actual Emissions (tons/year)	36.47	36.47	36.47	--	--	--	1,199.7	--	--	--
PTE CHANGE OF MODIFIED UNITS	7.00	7.00	7.00				-1,199.7			
Total Emission Increase from the Project (tons/year)	23.80	14.20	9.40	--	--	--	-1199.75	--	--	--
PSD Significant Levels	25	15	10	40	40	100	40	0.60	NA	NA

The addition of Limestone into the kilns #4 and #5 will control SO2 emissions from these kilns. However, as a result of the addition of limestone, collateral PM emissions will occur from the kilns will increase. The rest of the pollutants will not be affected, therefore, these pollutants will not be shown in this spreadsheet.

Company Name: Hydraulic Press Brick Co.
 Source Address: 6618 Tidewater Road, Mooresville, Indiana 46158
 SSM No.: 109-36721-00007
 SPM No.: 109-36723-00007
 Reviewer: Aida DeGuzman

Limestone Unloading Into Silos PTE										
Facility/ID	PM Emission Factors (lb/ton)		PM10 Emission Factors (lb/ton)		Throughput	Unloading Time	Uncontrolled Emissions		Controlled Emissions	
	Uncontrolled	Controlled	Uncontrolled	Controlled	(t/hr)	hr/yr	PM (t/yr)	PM10 (t/yr)	PM (t/yr)	PM10 (t/yr)
Limestone Silo 1	3.14	0.0089	1.1	0.0049	16.67	8760	229.22	80.30	0.65	0.36
Limestone Silo 2	3.14	0.0089	1.1	0.0049	16.67	8760	229.22	80.30	0.65	0.36
TOTAL PTE							458.44	160.60	1.30	0.72
Limestone Silos (expected throughput of 9,183 t/yr) PM10 = PM2.5	3.14	0.0089	1.1	0.0049	16.67	551	14.41	5.05	0.04	0.02

Silo Capacity = 120 tons each (two identical silos)

Silo Loading Rate = 25 tons/90 minutes, or 16.67 tons/hr

Projected Annual Limestone Throughput:

Nov 2014 pilot testing required 2250 lb/hr to control SO2 emissions from shale at 21 t/hr

Pilot testing equates to 107 lb limestone per ton of shale fed

Average shale production over 2010-2014 = 167,498 t/yr for Kiln #5 and 3924 t/yr for Kiln #4

Total throughput = 171,422 tons per year, which would require 9,183 tons per year of limestone

Limestone unloading (pneumatic) assumed comparable to cement unloading to storage silo (pneumatic), SCC 3-05-011-17

Emission factors (AP-42, Table 11.12-2)

Uncontrolled total PM = 3.14 lb/ton limestone loaded
 Controlled total PM = 0.0089 lb/ton limestone loaded
 Uncontrolled PM10 = 1.1 lb/ton limestone loaded
 Controlled PM10 = 0.0049 lb/ton limestone loaded

Limited PTE - Limestone Unloading Into Silos							
Facility / ID	Throughput Limit	PM Emissions Limit		PM10 Emissions Limit		PM2.5 Emissions Limit	
	tons/year	lb/ton	ton/year	lb/ton	tons/yr	lb/ton	tons/year
Limestone Silo 1	24,000	1.40	16.80	0.60	7.20	0.20	2.4
Limestone Silo 2							

Company Name: Hydraulic Press Brick Co.
Source Address: 6618 Tidewater Road, Mooresville, Indiana 46158
SSM No.: 109-36721-00007
SPM No.: 109-36723-00007
Reviewer: Aida DeGuzman

Baseline Actual Emissions to Projected Future Actual Emissions for PM/PM10/PM2.5 emissions from Kiln #4 and Kiln #5

Baseline Actual Emissions

Throughput = maximum 2-year average production rate over 2009-2014
 Control Efficiency = lowest control efficiency from two most recent stack tests
 Uncontrolled PM emission rate based on Kiln 5 mass balance

Unit	Baseline Average Shale Process Rate (t/yr)	Uncontrolled Emission Rate (lb/ton)	Uncontrolled Emissions (t/yr)	Control Efficiency (%)	Baseline Actual Emissions (t/yr)
Kiln #4	23530.5	483.26	5,686	99.87%	7.16
Kiln #5	159853	483.26	38,625	99.94%	22.32
Total			44,311		29.48

Future Projected Actual Emissions

Throughput assumed equal to maximum throughput used in BAE calculation (no change in throughput will occur as a result of the addition of the limestone injection system)
 Control Efficiency assumed equal to control efficiency in BAE calculation (no change in PM control efficiency will occur as a result of the addition of the limestone injection system)
 Uncontrolled PM emission rate based on Kiln 5 mass balance plus limestone loading from limestone injection system

Uncontrolled PM based on Kiln 5 mass balance	483.26	lb/ton
Increased PM from limestone injection sys	114.72	lb/ton
Total future PM loading	597.98	lb/ton

Unit	Future Projected Shale Process Rate (t/yr)	Uncontrolled Emission Rate (lb/ton)	Uncontrolled Emissions (t/yr)	Control Efficiency (%)	Projected Future Actual Emissions (t/yr)
Kiln #4	23530.5	597.98	7,035	99.87%	8.86
Kiln #5	159853	597.98	47,795	99.94%	27.62
Total			54,830		36.47

Change in PM emissions = Future Projected Actual Emissions - Baseline Actual Emissions = 7.00 tons/year
 (PM10 and PM2.5 are assumed to be equal to PM for the purpose of this evaluation)

Company Name: Hydraulic Press Brick Co.
Source Address: 6618 Tidewater Road, Mooresville, Indiana 46158
SSM No.: 109-36721-00007
SPM No.: 109-36723-00007
Reviewer: Aida DeGuzman

Baseline Actual Emissions to Projected Future Actual Emissions for SO2 emissions from Kiln #4 and Kiln #5

Baseline Actual Emissions

Throughput = maximum 2-year average production rate over 2009-2014

Control Efficiency = assumed zero for baseline actual

Uncontrolled SO2 emission rates based on Kiln 4 and Kiln 5 compliance test June 2014

Kiln #4 Stack Test =	250 lb SO2 at	12 t/hr production rate, equal to	20.8 lb SO2/ton shale
Kiln #5 Stack Test =	593 lb SO2 at	22 t/hr production rate	27.0 lb SO2/ton shale

Unit	Baseline Average Shale Process Rate (t/yr)	Uncontrolled Emission Rate (lb/ton)	Uncontrolled Emissions (t/yr)	Control Efficiency (% control)	Baseline Actual Emissions (t/yr)
Kiln #4	23530.5	20.83	245	0.00%	245
Kiln #5	159853	26.95	2,154	0.00%	2154
Total			2,399		2399

Future Projected Actual Emissions

Throughput assumed equal to maximum throughput used in BAE calculation (no change in throughput will occur as a result of the addition of the limestone injection system)

Control Efficiency assumed to be 50%

Unit	Future Projected Shale Process Rate (t/yr)	Uncontrolled Emission Rate (lb/ton)	Uncontrolled Emissions (t/yr)	Control Efficiency (% control)	Projected Future Actual Emissions (t/yr)
Kiln #4	23530.5	20.83	245	50.00%	122.55
Kiln #5	159853	26.95	2,154	50.00%	1077.19
Total			2,399		1199.75

Change in SO2 emissions = Future Projected Actual Emissions - Baseline Actual Emissions = -1199.75 tons/year

Company Name: Hydraulic Press Brick Co.
Source Address: 6618 Tidewater Road, Mooresville, Indiana 46158
SSM No.: 109-36721-00007
SPM No.: 109-36723-00007
Reviewer: Aida DeGuzman

PM/PM10/PM2.5 PTE From Limestone Injection

June 2014 Stack Test Results (assumed to represent baseline uncontrolled SO2 emissions)

Kiln #5 = 593 lb/hr at shale feed rate of 22 tons/hr
 Kiln #4 = 250 lb/hr at shale feed rate of 22 tons/hr (Kiln #4 was not tested but assumed 22 tons/hr feed rate)

November 2014 pilot testing on Kiln #5 (operating conditions comparable to those during June 2014 stack test)

Limestone injection rate to achieve 50% control = 2,250 lb/hr (shale feed rate = 21 t/hr, actual SO2 reduction = 53%)
 Projected limestone injection rate at shale feed rate of 22 t/hr = 2250 lb/hr * (22/21) = 2357.1 lb/hr
 Quantity of SO2 controlled at shale feed rate of 22 t/hr = 593 lb/hr * 50% control = 296.5 lb/hr

One pound mole of limestone (CaCO3, 100 pounds) reacts with one pound mole of SO2 (64 pounds) to produce one pound mole of CaSO4 (136 pounds)

Pound-moles of SO2 controlled at shale feed rate of 22 t/hr = 297/64 = 4.63 pound/mole-hr

Pound-moles of CaCO3 reacted to obtain 50% control of SO2 at shale feed rate of 22 t/hr = 4.63 lb/molehr, or 463 pounds/hr of CaCO3

Amount of unreacted limestone that is added to Kiln #5 collection device at shale feed rate of 22 t/hr = 2357 lb/hr - 464 lb/hr = 1893 lb/hr

Amount of CaSO4 that is generated from 50% control of SO2 at shale feed rate of 22 t/hr = 4.64 lb-moles/hr * 136 lb/lb-mole CaSO4 = 631 lb/hr

Total increased particulate loading to collector at shale feed rate of 22 t/hr and 50% control of SO2 = 1893 lb/hr + 631 lb/hr =

Increased loading of 2524 lb/hr at shale feed rate of 22 t/hr is equivalent to 114.7 lb/hr per ton shale processed for Kiln #5.

Kiln #4 assumed to have similar increase in particulate matter loading to control device of 114.7 lb/hr per ton of shale processed.

1893.9 lb/hr, or	86.1 lb/ton shale processed
630.1 lb/hr, or	28.64 lb/ton shale processed
2523.9 lb/hr, or	114.7 lb/ton shale processed
11,054.79 tons/yr uncontrolled PM/PM10/PM2.5 Emissions for Kiln #5	
11,054.8 tons/yr uncontrolled PM/PM10/PM2.5 Emissions for Kiln #4	

Company Name: Hydraulic Press Brick Co.
Source Address: 6618 Tidewater Road, Mooresville, Indiana 46158
SSM No.: 109-36721-00007
SPM No.: 109-36723-00007
Reviewer: Aida DeGuzman

Particulate Matter Collected by Baghouse

#5 Kiln Material Drop Out Prior to Stack

Area	Sample #	Rate per hour (lbs)
Baghouse	1	10,404.00
	2	10,808.60
	3	10,682.40
	Average	10,631.67
Feed End	1	362.48
	2	376.40
	3	353.44
	Average	364.11
Pre-Cooler	1	251.28
	2	223.20
	3	215.76
	Average	230.08

The rates per hour were taken at different times and under normal working conditions.
 The kiln shale feed rate was 22 tons per hour during all tests.

Uncontrolled Particulate Matter Emission Rate

Uncontrolled PM Emissions =

483.26 lb PM/ton shale processed (represents amount of uncontrolled particulate matter captured by control device)

Company Name: Hydraulic Press Brick Co.

Source Address: 6618 Tidewater Road, Mooresville, Indiana 46158

SSM No.: 109-36721-00007

SPM No.: 109-36723-00007

Reviewer: Aida DeGuzman

Baseline Actual Production Data (2009-2014 Data)				
Year	Kiln #4 Actual Production	Kiln #5 Actual Production	Total Kilns Production	2-yr avg for both Kilns
2009	38,811	148,673	187,484	
2010	8,250	171,033	179,283	183,384
2011	7,948	167,005	174,953	177,118
2012	1,785	172,449	174,234	174,594
2013	1,129	173,178	174,307	174,271
2014	508	153,826	154,334	164,321

High 2-yr average = 2009/2010		
Kiln 5 throughput average	159,853	tons/yr
Kiln 4 throughput average	23,531	tons/yr

Company Name: Hydraulic Press Brick Co.
 Source Address: 6618 Tidewater Road, Mooresville, Indiana 46158
 SSM No.: 109-36721-00007
 SPM No.: 109-36723-00007
 Reviewer: Aida DeGuzman

2007 Stack Test (August 24, 2007)

Kiln 4 = 7.91 lb/hr at a production rate of 13 tons/hr
 Kiln 5 = 7.26 lb/hr at a production rate of 26 tons/hr

2012 Stack Test (August 22-23, 2012)

Kiln 4 = 5.15 lb/hr at a production rate of 13 tons/hr
 Kiln 5 = 2.81 lb/hr at a production rate of 28 tons/hr

PTE PM/PM10/PM2.5 Before the Modification to the Kilns Operation											
	Throughput Rate During Tests		*Uncontrolled Emissions (lb/ton)	Uncontrolled Emissions (lb/hr)		**Controlled Emissions (lb/hr)		Control Efficiency (%) Control		Uncontrolled Actual PTE Based on Tests (ton/yr)	Uncontrolled PTE Based on Maximum Production Rate (ton/yr)
	2007	2012		2007	2012	2007	2012	2007	2012		
Kiln #4	13	13	483.26	6282.3	6282.3	7.91	5.15	99.87%	99.92%	27,516.69	31,750.02
Kiln #5	26	28	483.26	12564.7	13531.2	7.26	2.81	99.94%	99.98%	59,266.71	63,500.05
								99.91% Ave			

* Uncontrolled emission factor was based on particulate collected by the baghouse

which was also used for Kiln #4 controlled by a scrubber.

** Controlled emissions were based on worst case stack tests done on August 24, 2007

PM=PM10=PM2.5

PTE PM/PM10/PM2.5 After the Modification to the Kilns Operation								
	Maximum Throughput Rate (ton/hour)	*Kilns Uncontrolled Emissions (lb/ton)	Kilns Uncontrolled Emissions (tons/year)	** Kilns Controlled Emissions (tons/year)	Limestone Addition Uncontrolled PTE (tons/year)	Modified Kilns Uncontrolled PTE (tons/year)	Limestone Addition Controlled PTE (tons/year)	Modified Kilns Controlled PTE (tons/year)
	Kiln #4	15	483.26	31,750	39.98	11,054.79	42,804.81	9.95
Kiln #5	30	483.26	63,500	36.69	11,054.79	74,554.83	9.95	46.64
Total PTE After the Modification to the Operation of the Kilns						117,359.64		96.57

Company Name: Hydraulic Press Brick Co.
Source Address: 6618 Tidewater Road, Mooresville, Indiana 46158
SSM No.: 109-36721-00007
SPM No.: 109-36723-00007
Reviewer: Aida DeGuzman

Kilns SO2 Potential to Emit									
Unit	Uncontrolled SO2 Emission Rate (lb/hour)*	Uncontrolled SO2 Emission Rate (tons/year)	Uncontrolled SO2 Emission Rate (lb/mmBtu)*	Control Efficiency Required (% Control)	Alternative Emission Limit (lb/mmBtu)	Control Efficiency Needed to Meet Alternative Limit (% Control)	Least Stringent Control Efficiency (% Control)	Controlled SO2 Emissions (lb/hr)	Potential Controlled Emissions (t/yr)
Kiln #4	250	1,095.0	9.21	50%	2.5	72.86%	50%	125	547.50
Kiln #5	593	2,597.3	9.21	50%	2.5	72.86%	50%	297	1298.67

* Based on June 2014 Stack Test at shale feed rate of 22 tons/hr for both kilns (Kiln #4 was not tested but assumed 22 tons/hr shale feed rate)



Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Carol S. Comer
Commissioner

April 22, 2016

Paul Coffey
Hydraulic Press Brick Co.
PO Box 130
Brooklyn, IN 46111

Re: Public Notice
Hydraulic Press Brick Co.
Permit Level: Title V - Significant Source Modification & Title V - Significant Permit Modification
Permit Number: 109 - 36721 - 00007 & 109 - 36723 - 00007

Dear Paul Coffey:

Enclosed is a copy of your draft Title V - Significant Source Modification & Title V - Significant Permit Modification, Technical Support Document, emission calculations, and the Public Notice which will be printed in your local newspaper.

The Office of Air Quality (OAQ) has prepared two versions of the Public Notice Document. The abbreviated version will be published in the newspaper, and the more detailed version will be made available on the IDEM's website and provided to interested parties. Both versions are included for your reference. The OAQ has requested that the Martinsville Daily Reporter-Times in Mooresville, Indiana publish the abbreviated version of the public notice no later than April 27, 2016. You will not be responsible for collecting any comments, nor are you responsible for having the notice published in the newspaper.

OAQ has submitted the draft permit package to the Morgan Co Public Library, 110 S Jefferson St in Martinsville IN. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to Aida Deguzman, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension 3-4972 or dial (317) 233-4972.

Sincerely,
Len Pogost

Len Pogost
Permits Branch
Office of Air Quality

Enclosures
PN Applicant Cover letter 2/17/2016



Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Carol S. Comer
Commissioner

ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING

April 22, 2016

Martinsville Daily Reporter-Times
Attn: Classifieds
P.O. Box 308
Mooresville, Indiana 46158

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for Hydraulic Press Brick Co., Morgan County, Indiana.

Since our agency must comply with requirements which call for a Notice of Public Comment, we request that you print this notice one time, no later than April 27, 2016.

Please send a notarized form, clippings showing the date of publication, and the billing to the Indiana Department of Environmental Management, Accounting, Room N1345, 100 North Senate Avenue, Indianapolis, Indiana, 46204.

To ensure proper payment, please reference account # 100174737.

We are required by the Auditor's Office to request that you place the Federal ID Number on all claims. If you have any conflicts, questions, or problems with the publishing of this notice or if you do not receive complete public notice information for this notice, please call Len Pogost at 800-451-6027 and ask for extension 3-2803 or dial 317-233-2803.

Sincerely,

Len Pogost

Len Pogost
Permit Branch
Office of Air Quality

Permit Level: Title V - Significant Source Modification & Title V - Significant Permit Modification
Permit Number: 109 - 36721 - 00007 & 109 - 36723 - 00007

Enclosure
PN Newspaper.dot 6/13/2013



Indiana Department of Environmental Management

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Michael R. Pence
Governor

Carol S. Comer
Commissioner

April 22, 2016

To: Morgan Co Public Library 110 S Jefferson St Martinsville IN

From: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information to Display Regarding a Public Notice for an Air Permit**

Applicant Name: Hydraulic Press Brick Co.
Permit Number: 109 - 36721 - 00007 & 109 - 36723 - 00007

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Request to publish the Notice of 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. **Please make this information readily available until you receive a copy of the final package.**

If you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185. Questions pertaining to the permit itself should be directed to the contact listed on the notice.

Enclosures
PN Library.dot 2/17/2016



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Michael R. Pence
Governor

Carol S. Comer
Commissioner

Notice of Public Comment

April 22, 2016

Hydraulic Press Brick Co.

109 - 36721 - 00007 & 109 - 36723 - 00007

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has been placed in the Legal Advertising section of your local newspaper. The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana's Air Permitting Program.

Please Note: *If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV. If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.*

Enclosure
PN AAA Cover.dot 2/17/2016



Indiana Department of Environmental Management

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Michael R. Pence
Governor

Carol S. Comer
Commissioner

AFFECTED STATE NOTIFICATION OF PUBLIC COMMENT PERIOD DRAFT INDIANA AIR PERMIT

April 22, 2016

A 30-day public comment period has been initiated for:

Permit Number: 109 - 36721 - 00007 & 109 - 36723 - 00007
Applicant Name: Hydraulic Press Brick Co.
Location: Mooresville, Morgan County, Indiana

The public notice, draft permit and technical support documents can be accessed via the **IDEM Air Permits Online** site at:

<http://www.in.gov/ai/appfiles/idem-caats/>

Questions or comments on this draft permit should be directed to the person identified in the public notice by telephone or in writing to:

Indiana Department of Environmental Management
Office of Air Quality, Permits Branch
100 North Senate Avenue
Indianapolis, IN 46204

Questions or comments regarding this email notification or access to this information from the EPA Internet site can be directed to Chris Hammack at chammack@idem.IN.gov or (317) 233-2414.

Affected States Notification.dot 2/17/2016

Mail Code 61-53

IDEM Staff	LPOGOST 4/22/2016 Hydraulic Press Brick Co. 109 - 36721 - 00007 & 109 - 36723 - 00007 (draft/			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: CERTIFICATE OF MAILING ONLY	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee
											Remarks
1		Paul Coffey Hydraulic Press Brick Co. PO Box 130 Brooklyn IN 46111 (Source CAATS)									
2		Mark Thacker Plant Mgr Hydraulic Press Brick Co. PO Box 130 Brooklyn IN 46111 (RO CAATS)									
3		Morgan County Commissioners 180 South Main Street Martinsville IN 46151 (Local Official)									
4		Morgan Co Public Library 110 S Jefferson St Martinsville IN 46151-1999 (Library)									
5		Mooresville Town Council 4 E Harrison Street Mooresville IN 46158 (Local Official)									
6		David Jordan Environmental Resources Management (ERM) 8425 Woodfield Crossing Blvd., Suite 560-W Indianapolis IN 46240 (Consultant)									
7		Brooklyn Town Council P.O. Box 159 Brooklyn IN 46111 (Local Official)									
8		Clayton D. & Patricia A. Arthur 5178 Brenda Boulevard Greenwood IN 46143 (Affected Party)									
9		Morgan County Health Department 180 S Main Street, Suite 252 Martinsville IN 46151-1988 (Health Department)									
10		David Jones 7977 N. Taylors Rd. Mooresville IN 46158 (Affected Party)									
11		Claudia Parker 6761 Centenary Rd. Mooresville IN 46158 (Affected Party)									
12		James Swails 6568 E. Rosebud Lane Mooresville IN 46158 (Affected Party)									
13		John Thurston 6548 E. Watson Mooresville IN 46158 (Affected Party)									
14											
15											

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