

PART 70 OPERATING PERMIT OFFICE OF AIR MANAGEMENT

**Hydraulic Press Brick Company
Centerton Road
Brooklyn, Indiana 46111**

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T109-6835-00007	
Issued by: Felicia R. George, Assistant Commissioner Office of Air Management	Issuance Date:

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). 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(15)]

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

Responsible Official: Ira Smith
Source Address: Centerton Road, Brooklyn, Indiana 46111
Mailing Address: P.O. Box 7, Brooklyn, Indiana 46111-0007
SIC Code: 3295
County Location: Morgan
County Status: Attainment for all criteria pollutants
Source Status: Part 70 Permit Program
Major Source, under PSD

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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, with a maximum capacity of 200 tons of raw shale per hour, using wet suppression of fugitive dust as control, and exhausting fugitively, 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) Two (2) rotary kilns, identified as K3 and K4, each with a maximum heat input of 100 MMBtu per hour burning natural gas or bituminous coal, each with a maximum capacity of 20 tons of raw shale per hour, each using a Peabody wet scrubber as control, and each exhausting to stack ST4,
- (c) One (1) rotary kiln, identified as K5, with a maximum heat input of 100 MMBtu per hour burning natural gas or bituminous coal, with a maximum capacity of 40 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, with a maximum capacity of 100 tons of expanded shale per hour, using wet suppression of fugitive dust as control, exhausting fugitively, 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, and
- (d) One (1) reciprocating grate clinker cooler, identified as CLNKCOOL, with a maximum capacity of 40 tons of expanded shale per hour, using a multiclone as control, and exhausting to stack ST2.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]

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,
- (b) Other activities or categories not previously identified with emissions below insignificant thresholds:
 - (1) Two coal silos, identified as silos 1 and 2, with a conveying system.
 - (2) Four (4) covered silos, identified as silos 3, 4, 5A, and 5B, each with a maximum capacity of 200 tons of raw shale,
 - (3) Three (3) hoppers, identified as HCR6 through HCR8, each with a maximum capacity of 100 tons of raw shale per hour,
 - (4) Two (2) chutes, identified as HCR16 and HCR17, each with a maximum capacity of 100 tons of expanded shale per hour, and

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).

SECTION B

GENERAL CONDITIONS

B.1 Permit No Defense [326 IAC 2-1-10] [IC 13]

- (a) Indiana statutes from IC 13 and rules from 326 IAC, quoted 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.
- (b) This prohibition shall not apply to alleged violations of applicable requirements for which the Commissioner has granted a permit shield in accordance with 326 IAC 2-1-3.2 or 326 IAC 2-7-15, as set out in this permit in the Section B condition entitled "Permit Shield."

B.2 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, any applicable definitions found in IC 13-11, 326 IAC 1-2 and 326 IAC 2-7 shall prevail.

B.3 Permit Term [326 IAC 2-7-5(2)]

This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3.

B.4 Enforceability [326 IAC 2-7-7(a)]

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

B.5 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.6 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.7 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.8 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)]

- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall furnish to IDEM, OAM, within a reasonable time, any information that IDEM, OAM, 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.
- (c) Upon request, the Permittee shall also furnish to IDEM, OAM, copies of records required to be kept by this permit. If the Permittee wishes to assert a claim of confidentiality over any of the furnished records, the Permittee must furnish such records to IDEM, OAM, along with a claim of confidentiality under 326 IAC 17. If requested by IDEM, OAM, or the U.S. EPA, to furnish copies of requested records directly to U. S. EPA, and if the Permittee is making a claim of confidentiality regarding the furnished records, then the Permittee must furnish such confidential records directly to the U.S. EPA along with a claim of confidentiality under 40 CFR 2, Subpart B.

B.9 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit constitutes a violation of the Clean Air Act and is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; or
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

B.10 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)]

- (a) Any application form, report, or compliance certification submitted under this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, and any other certification required under this permit, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, on the attached Certification Form, with each submittal.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

B.11 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. The certification shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
and

United States Environmental Protection Agency, Region V
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, OAM, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
- (1) The identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was based on continuous or intermittent data;
 - (4) The methods used for determining compliance of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3);
 - (5) Any insignificant activity that has been added without a permit revision; and
 - (6) Such other facts, as specified in Sections D of this permit, as IDEM, OAM, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.12 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)]
[326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, 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 its control, the PMP 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 Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM.

B.13 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, except as provided in 326 IAC 2-7-16.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or 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, OAM, 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 Management,
Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted notice, either in writing or facsimile, of the emergency to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (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) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAM, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(9) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAM, by telephone or facsimile of an emergency lasting more than one (1) hour in compliance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) 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.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is 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.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.14 Permit Shield [326 IAC 2-7-15]

- (a) This condition provides a permit shield as addressed in 326 IAC 2-7-15.
- (b) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. Compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance, provided that:
 - (1) The applicable requirements are included and specifically identified in this permit; or
 - (2) The permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable.
- (c) 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, including any term or condition from a previously issued construction or operation permit, IDEM, OAM, 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.
- (d) 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.
- (e) 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.
- (f) 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).
- (g) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAM, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (h) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAM, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.15 Multiple Exceedances [326 IAC 2-7-5(1)(E)]

Any exceedance of a permit limitation or condition contained in this permit, which occurs contemporaneously with an exceedance of an associated surrogate or operating parameter established to detect or assure compliance with that limit or condition, both arising out of the same act or occurrence, shall constitute a single potential violation of this permit.

B.16 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within ten (10) calendar days from the date of the discovery of the deviation.

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
- (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
 - (2) An emergency as defined in 326 IAC 2-7-1(12); or
 - (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.
 - (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.

B.17 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 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)]
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAM, 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, OAM, 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, OAM, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAM, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.18 Permit Renewal [326 IAC 2-7-4]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAM, 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).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]
 - (1) A timely renewal application is one that is:
 - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (B) 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, OAM, on or before the date it is due. [326 IAC 2-5-3]
 - (2) If IDEM, OAM, upon receiving a timely and complete 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.
- (c) Right to Operate After Application for Renewal [326 IAC 2-7-3]
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, OAM, 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

deadline specified in writing by IDEM, OAM, any additional information identified as being needed to process the application.

- (d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]
If IDEM, OAM, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

B.19 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) The Permittee must comply with 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) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule.

- (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.20 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 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)(D)(i) 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.21 Changes Under Section 502(b)(10) of the Clean Air Act [326 IAC 2-7-20(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(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a) and the following additional conditions:

- (a) For each such change, the required written notification shall include a brief description of the change within the source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.
- (b) The permit shield, described in 326 IAC 2-7-15, shall not apply to any change made under 326 IAC 2-7-20(b).

B.22 Operational Flexibility [326 IAC 2-7-20]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), 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 approval required by 326 IAC 2-1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
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 which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

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

(b) 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 by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) **Emission Trades [326 IAC 2-7-20(c)]**
The Permittee may trade increases and decreases in emissions in 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, OAM, or U.S. EPA is required.
- (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.

B.23 Construction Permit Requirement [326 IAC 2]

Except as allowed by Indiana P.L. 130-1996 Section 12, as amended by P.L. 244-1997, modification, construction, or reconstruction shall be approved as required by and in accordance with 326 IAC 2.

B.24 Inspection and Entry [326 IAC 2-7-6(2)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, the Permittee shall allow IDEM, OAM, 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) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.
[326 IAC 2-7-6(6)]
 - (1) The Permittee may assert a claim that, in the opinion of the Permittee, information removed or about to be removed from the source by IDEM, OAM, or an authorized representative, contains information that is confidential under IC 5-14-3-4(a). The claim shall be made in writing before or at the time the information is removed from the source. In the event that a claim of confidentiality is so asserted, neither IDEM, OAM, nor an authorized representative, may disclose the information unless and until IDEM, OAM, makes a determination under 326 IAC 17-1-7 through 326 IAC 17-1-9 that the information is not entitled to confidential treatment and that determination becomes final. [IC 5-14-3-4; IC 13-14-11-3; 326 IAC 17-1-7 through 326 IAC 17-1-9]

- (2) The Permittee, and IDEM, OAM, acknowledge that the federal law applies to claims of confidentiality made by the Permittee with regard to information removed or about to be removed from the source by U.S. EPA. [40 CFR Part 2, Subpart B]

B.25 Transfer of Ownership or Operation [326 IAC 2-1-6] [326 IAC 2-7-11]

Pursuant to 326 IAC 2-1-6 and 326 IAC 2-7-11:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAM, Permits Branch , within thirty (30) days of the change. Notification shall include a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the Permittee and the new owner.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an administrative amendment pursuant to 326 IAC 2-7-11. The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) IDEM, OAM, shall reserve the right to issue a new permit.

B.26 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

- (a) The Permittee shall pay annual fees to IDEM, OAM, within thirty (30) calendar days of receipt of a billing. If the Permittee does not receive a bill from IDEM, OAM the applicable fee is due April 1 of each year.
- (b) 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 317-233-0425 (ask for OAM, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

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

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

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour 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 5-1-3 (Temporary Exemptions), 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. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

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

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

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 Operation of Equipment [326 IAC 2-7-6(6)]

All air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.7 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.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are mandatory for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

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

C.9 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing methods approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.10 Compliance Schedule [326 IAC 2-7-6(3)]

The Permittee:

- (a) Has certified that all facilities at this source are in compliance with all applicable requirements; and
- (b) Has submitted a statement that the Permittee will continue to comply with such requirements; and
- (c) Will comply with such applicable requirements that become effective during the term of this permit.

C.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend compliance schedule an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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 the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.12 Maintenance of Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

- (a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.13 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed to meet the applicable requirements of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.14 Pressure Gauge Specifications

Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.

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

C.15 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 prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within ninety (90) days after the date of issuance of this permit.

The ERP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) If the ERP is disapproved by IDEM, OAM, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAM, 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]

C.16 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present in a process in more than the threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall:

- (a) Submit:
 - (1) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or
 - (2) As a part of the compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and
 - (3) A verification to IDEM, OAM, that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.
- (b) Provide annual certification to IDEM, OAM, that the Risk Management Plan is being properly implemented.

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.17 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5][326 IAC 2-7-6] [326 IAC 1-6]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
 - (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this permit;
 - (3) The Compliance Monitoring Requirements in Section D of this permit;
 - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and

- (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM, The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of :
 - (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.
- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;
 - (3) An automatic measurement was taken when the process was not operating; or
 - (4) The process has already returned to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

C.18 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 take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall

notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.19 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]

- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:
 - (1) Indicate actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
 - (2) Indicate actual emissions of other regulated pollutants from the source, for purposes of Part 70 fee assessment.
- (b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (c) The annual emission statement 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, OAM, on or before the date it is due.

C.20 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]

- (a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.

- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.21 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. 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 written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this permit;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;

- (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.22 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported.
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (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, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, report shall be submitted within thirty (30) days of the end of the reporting period.
- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports.
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Stratospheric Ozone Protection

C.23 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 the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

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

One (1) pre-kiln shale processing operation, identified as pre-kiln, with a maximum capacity of 200 tons of raw shale per hour, using wet suppression of fugitive dust as control, and exhausting fugitively, and consisting of the following equipment:

- (a) one (1) primary crusher, identified as PK1, with a maximum capacity of 200 tons of raw shale per hour,
- (b) one (1) secondary crusher, identified as PK2, with a maximum capacity of 100 tons of raw shale per hour,
- (c) six (6) conveyors, identified as PK3 through PK8, each with a maximum capacity of 200 tons of raw shale per hour.

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

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

Pursuant to 326 IAC 6-3-2 (Process Operations) the allowable PM emission rate from each of the following:

- (a) one (1) primary crusher (ID PK1) and six (6) conveyors (ID PK3 through PK8), shall not exceed 58.51 pounds per hour when each operating at a process weight rate of 400,000 pounds per hour (equivalent to 200 tons per hour).
- (b) one (1) secondary crusher (ID PK2), shall not exceed 51.28 pounds per hour when operating at a process weight rate of 200,000 pounds per hour (equivalent to 100 tons per hour).

The pound 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(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.1.3 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.1.4 Particulate Matter (PM)

Pursuant to OP-55-02-90-0093, issued on November 5, 1986, the sprinkling system for PM control shall be in operation at all times on the shale except when the ambient temperature is at or below the freezing point or the shale already contains sufficient moisture.

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

D.1.5 Visible Emissions Notations

- (a) Daily visible emission notations of the pre-kiln shale processing operation exhaust 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) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

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

D.1.6 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1 and D.1.5, the Permittee shall maintain records of daily visible emission notations of the one (1) pre-kiln shale processing operation exhaust.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2 FACILITY OPERATION CONDITIONS

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

- (a) Two (2) rotary kilns, identified as K3 and K4, each with a maximum heat input of 100 MMBtu per hour burning natural gas or bituminous coal, each with a maximum capacity of 20 tons of raw shale per hour, each using a Peabody wet scrubber as control, and each exhausting to stack ST4.
- (b) One (1) rotary kiln, identified as K5, with a maximum heat input of 100 MMBtu per hour burning natural gas or bituminous coal, with a maximum capacity of 40 tons of raw shale per hour, using a cloth baghouse as control, and exhausting to stack ST5.

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

D.2.1 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1]

Pursuant to 326 IAC 7-1.1-1 (Sulfur Dioxide Emissions Limitations), the SO₂ emissions from each of the three (3) rotary kilns (IDs K3, K4 and K5) when burning coal, shall not exceed six (6) pounds per MMBtu of coal combustion.

Pursuant to Operation Permit 55-02-90-0094, 55-02-90-0095, and 55-02-90-0096, the sulfur content of the coal delivered to the three (3) rotary kilns (IDs K3, K4 and K5) when burning coal, shall not exceed 2.40% by weight.

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

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from each of the:

- (a) two (2) rotary kilns (IDs K3 and K4) shall not exceed 30.51 pounds per hour each when operating at a process weight rate of 40,000 pounds per hour (equivalent to 20 tons per hour). When both of the two (2) rotary kilns (IDs K3 and K4) are operating the allowable PM emission rate from stack ST4 shall not exceed the sum of the individual limits for each kiln (equivalent to 61.02 pounds per hour).

The pound 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:

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

- (b) one (1) rotary kiln (ID K5) shall not exceed 42.53 pounds per hour when operating at a process weight rate of 80,000 pounds per hour (equivalent to 40 tons per hour).

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

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

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

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control devices.

Compliance Determination Requirements

D.2.4 Testing Requirements [326 IAC 2-7-6(1),(6)]

During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM testing on the one (1) Kiln (ID K5) and both of the two (2) Kilns (ID K3 and K4) utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM or other 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. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

D.2.5 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 2-7-5(3)(A)] [326 IAC 2-7-6]

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 one of the following options:

- (a) Coal sampling and analysis shall be performed using one of the following procedures:
 - (1) Minimum Coal Sampling Requirements and Analysis Methods [326 IAC 3-7-2(b)(3)]:
 - (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 three (3) times per day and at least one (1) time per eight (8) hour period unless no coal is bunkered during the preceding eight (8) hour period;
 - (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 3-7-2(a);
 - (3) Sample and analyze the coal pursuant to 326 IAC 3-7-3; or
- (b) Upon written notification to IDEM by a facility owner or operator, continuous emission monitoring data collected and reported pursuant to 326 IAC 3-5-1 may be used as the means for determining compliance with the emission limitations in 326 IAC 7-2. Upon such notification, the other requirements of 326 IAC 7-2 shall not apply. [326 IAC 7-2-1(e)]

- (c) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the three (3) rotary kilns (IDs K3, 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), (b), or (c) above shall not be refuted by evidence of compliance pursuant to the other method.

D.2.6 Particulate Matter (PM)

- (a) The wet scrubber for PM control shall be in operation at all times when the two (2) rotary kilns (IDs K3 and K4) are in operation.
- (b) The baghouse for PM control shall be in operation at all times when the one (1) rotary kiln (ID K5) is in operation.

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

D.2.7 Parametric Monitoring

- (a) The Permittee shall record the total static pressure drop across the wet scrubber used in conjunction with the two (2) rotary kilns (IDs K3 and K4), at least once daily when the two (2) rotary kilns (IDs K3 and K4) are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the wet scrubber shall be maintained above 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.
- (b) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the one (1) rotary kiln (ID K5), at least once daily when the one (1) rotary kiln (ID K5) is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 3.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

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

D.2.8 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the one (1) rotary kiln (ID K5) operation when venting to the atmosphere. All defective bags shall be replaced.

D.2.9 Broken or Failed Bag Detection

In the event that bag failure has been observed.

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described

in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. 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 single compartment baghouses, 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).

D.2.10 Visible Emissions Notations

- (a) Daily 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) emissions shall be performed once per day during normal daylight operations. 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) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

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

D.2.11 Record Keeping Requirements

- (a) To document compliance with Condition D.2.1, 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 PM and SO₂ emission limits established in D.2.1 and D.2.2.
 - (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) Pursuant to 326 IAC 3-7-5(a), owners or operators of sources with total coal-fired capacity greater than or equal to 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, OAM.
- (c) To document compliance with Condition D.2.7, the Permittee shall maintain the following as pertains to the baghouse and the wet scrubber:
 - (1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:
 - (A) Inlet and outlet differential static pressure; and
 - (B) Cleaning cycle: frequency and differential pressure.
 - (2) Documentation of all response steps implemented, per event .
 - (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
 - (4) Quality Assurance/Quality Control (QA/QC) procedures.
 - (5) Operator standard operating procedures (SOP).
 - (6) Manufacturer's specifications or its equivalent.
 - (7) Equipment "troubleshooting" contingency plan.
 - (8) Documentation of the dates vents are redirected.
- (d) To document compliance with Condition D.2.8, the Permittee shall maintain the following as pertains to the baghouse:
 - (1) To document compliance with Condition D.2.8, the Permittee shall maintain records of the results of the inspections required under Condition D.2.8 and the dates the vents are redirected.
- (e) To document compliance with Condition D.2.10 the Permittee shall maintain the following as pertains to the baghouse:
 - (1) To document compliance with Condition D.2.10, the Permittee shall maintain records of daily visible emission notations of the three (3) rotary kilns (IDs K3, K4 and K5) stack exhaust.
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3 FACILITY OPERATION CONDITIONS

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

One (1) haydite crusher line, identified as HCR, with a maximum capacity of 100 tons of expanded shale per hour, using wet suppression of fugitive dust as control, exhausting fugitively, and consisting of the following equipment:

- (a) one (1) primary haydite crusher, identified as HCR1, with a maximum capacity of 100 tons of expanded shale per hour,
- (b) one (1) secondary haydite crusher, identified as HCR2, with a maximum capacity of 100 tons of expanded shale per hour,
- (c) three (3) screens, identified as HCR3 through HCR5, each with a maximum capacity of 100 tons of expanded shale per hour, and
- (d) seven (7) conveyors, identified as HCR9 through HCR14, each with a maximum capacity of 100 tons of expanded shale per hour.

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

D.3.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from each of 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 not exceed 51.28 pounds per hour when each operating at a process weight rate of 200,000 pounds per hour (equivalent to 100 tons per hour).

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

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

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

D.3.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.3.3 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.3.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.3.4 Particulate Matter (PM)

Pursuant to OP-55-02-90-0093, issued on November 5, 1986, the sprinkling system for PM control shall be in operation at all times on the shale except when the ambient temperature is at or below the freezing point or the shale already contains sufficient moisture.

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

D.3.5 Visible Emissions Notations

- (a) Daily visible emission notations of the one (1) haydite crusher line exhaust 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) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

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

D.3.6 Record Keeping Requirements

- (a) To document compliance with Condition D.3.1 and D.3.5, the Permittee shall maintain records of daily visible emission notations of the haydite crusher line operation exhaust.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.4 FACILITY OPERATION CONDITIONS

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

One (1) reciprocating grate clinker cooler, identified as CLNKCOOL, with a maximum capacity of 40 tons of expanded shale per hour, using a multicclone as control, and exhausting to stack ST2.

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

D.4.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the one (1) reciprocating grate clinker cooler shall not exceed 42.53 pounds per hour when operating at a process weight rate of 80,000 pounds per hour (equivalent to 40 tons per hour).

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

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

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

D.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.4.3 Testing Requirements [326 IAC 2-7-6(1),(6)]

During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM, or other 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. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

D.4.4 Particulate Matter (PM)

The multicclone for PM control shall be in operation at all times when the one (1) reciprocating grate clinker cooler is in operation.

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

D.4.5 Parametric Monitoring

The Permittee shall record the total static pressure drop across the multicclone used in conjunction with the reciprocating grate clinker cooler, at least once daily when the reciprocating grate clinker cooler is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the multicclone shall be maintained within the range of 1.0 and 3.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

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

D.4.6 Multiclone Inspections

An inspection shall be performed each calendar quarter of the multiclone controlling the one (1) reciprocating grate clinker cooler operation when venting to the atmosphere.

D.4.7 Visible Emissions Notations

- (a) Daily visible emission notations of the one (1) reciprocating grate clinker cooler multiclone stack (S/V ID ST2) 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) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

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

D.4.8 Record Keeping Requirements

- (a) To document compliance with Conditions D.4.1 and D.4.7, the Permittee shall maintain records of daily visible emission notations of the one (1) reciprocating grate clinker cooler stack exhaust.
- (b) To document compliance with Condition D.4.5, the Permittee shall maintain the following as pertains to the multiclone:
 - (1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:
 - (A) Inlet and outlet differential static pressure.
 - (2) Documentation of all response steps implemented, per event.
 - (3) Operation and preventive maintenance logs, including work purchase orders, shall be maintained.
 - (4) Quality Assurance/Quality Control (QA/QC) procedures.
 - (5) Operator standard operating procedures (SOP).
 - (6) Manufacturer's specifications or its equivalent.

- (7) Equipment "troubleshooting" contingency plan.
- (8) Documentation of the dates vents are redirected.
- (c) To document compliance with Condition D.4.6, the Permittee shall maintain records of the results of the inspections required under Condition D.4.6 and the dates the vents are redirected.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Hydraulic Press Brick Company
Source Address: Centerton Road
Mailing Address: Brooklyn, Indiana, 46111
Part 70 Permit No.: T109-6835-00007

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:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 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:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

**PART 70 OPERATING PERMIT
EMERGENCY/DEVIATION OCCURRENCE REPORT**

Source Name: Hydraulic Press Brick Company
Source Address: Centerton Road
Mailing Address: Brooklyn, Indiana, 46111
Part 70 Permit No.: T109-6835-00007

This form consists of 2 pages

Page 1 of 2

Check either No. 1 or No.2

9 1. This is an emergency as defined in 326 IAC 2-7-1(12)
C The Permittee must notify the Office of Air Management (OAM), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
C The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

9 2. This is a deviation, reportable per 326 IAC 2-7-5(3)(c)
C The Permittee must submit notice in writing within ten (10) calendar days

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/Deviation:

Describe the cause of the Emergency/Deviation:

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

Page 2 of 2

Date/Time Emergency/Deviation started:
Date/Time Emergency/Deviation was corrected:
Was the facility being properly operated at the time of the emergency/deviation? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency/deviation:
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: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT
QUARTERLY COMPLIANCE MONITORING REPORT**

Source Name: Hydraulic Press Brick Company
Source Address: Centerton Road
Mailing Address: Brooklyn, Indiana, 46111
Part 70 Permit No.: T109-6835-00007

Months: _____ to _____ Year: _____

This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted quarterly. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/Deviation Occurrence Report. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.

Compliance Monitoring Requirement (e.g. Permit Condition D.1.3)	Number of Deviations	Date of each Deviation

Form Completed By: _____
Title/Position: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a Part 70 Operating Permit

Source Background and Description

Source Name: Hydraulic Press Brick Company
Source Location: Centerton Road, Brooklyn, Indiana, 46111
County: Morgan
SIC Code: 3295
Operation Permit No. : T109-6835-00007
Permit Reviewer: Phillip Ritz/EVP

The Office of Air Management (OAM) has reviewed a Part 70 permit application from Hydraulic Press Brick Company relating to the operation of a stationary shale processing plant producing lightweight expanded shale aggregate.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) pre-kiln shale processing operation, identified as pre-kiln, with a maximum capacity of 200 tons of raw shale per hour, using wet suppression of fugitive dust as control, and exhausting fugitively, 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) Two (2) rotary kilns, identified as K3 and K4, each with a maximum heat input of 100 million British Thermal Units (MMBtu) per hour burning natural gas or bituminous coal, each with a maximum capacity of 20 tons of raw shale per hour, each using a Peabody wet scrubber as control, and each exhausting to stack ST4,

- (c) One (1) rotary kiln, identified as K5, with a maximum heat input of 100 MMBtu per hour burning natural gas or bituminous coal, with a maximum capacity of 40 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, with a maximum capacity of 90 tons of expanded shale per hour, using wet suppression of fugitive dust as control, exhausting fugitively, and consisting of the following equipment:
- (1) one (1) primary haydite crusher, identified as HCR1, with a maximum capacity of 90 tons of expanded shale per hour,
 - (2) one (1) secondary haydite crusher, identified as HCR2, with a maximum capacity of 90 tons of expanded shale per hour,
 - (3) three (3) screens, identified as HCR3 through HCR5, each with a maximum capacity of 90 tons of expanded shale per hour, and
 - (4) seven (7) conveyors, identified as HCR9 through HCR15, each with a maximum capacity of 90 tons of expanded shale per hour.

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted facilities/units:

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

New Emission Units and Pollution Control Equipment Requiring ENSR

There are no new facilities to be reviewed under the ENSR process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour,
- (b) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons,
- (c) A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month,
- (d) Refractory storage not requiring air pollution control equipment,
- (e) Cleaners and solvents characterized as follows:
 - (1) having a vapor pressure equal to or less than 2 kPa; 15mm Hg; or 0.3 psi measured at 100°F or;
 - (2) having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 68°F;

the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

- (f) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

- (g) Paved and unpaved roads and parking lots with public access.
- (h) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (i) Emergency generators as follows:
 - (1) Gasoline generators not exceeding 110 horsepower.
 - (2) Natural gas turbines or reciprocating engines not exceeding 16,000 horsepower,
- (j) Other activities or categories not previously identified with emissions below insignificant thresholds:
 - (1) Two coal silos, identified as silos 1 and 2, with a conveying system.
 - (2) Four (4) covered silos, identified as silos 3, 4, 5A, and 5B, each with a maximum capacity of 200 tons of raw shale,
 - (3) Three (3) hoppers, identified as HCR6 through HCR8, each with a maximum capacity of 100 tons of raw shale per hour,
 - (4) Two (2) chutes, identified as HCR16 and HCR17, each with a maximum capacity of 100 tons of expanded shale per hour, and

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) OP 55-02-90-0093, issued on November 5, 1991;
- (b) OP 55-02-90-0094, issued on November 5, 1990;
- (c) OP 55-02-90-0095, issued on November 5, 1990;
- (d) OP 55-02-90-0096, issued on November 5, 1990; and
- (e) CP 109-2469-00007, issued on March 23, 1993.

All conditions from previous approvals were incorporated into this Part 70 permit except the following:

- (a) CP 109-2469-00007, issued on March 23, 1993.

All Conditions

Reason not incorporated: Emission units were never constructed.

Enforcement Issue

- (a) IDEM is aware that equipment has been operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment*.
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Recommendation

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

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

An administratively complete Part 70 permit application for the purposes of this review was received on October 7, 1996. Additional information was received on August 20, 1998.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 through 9).

Potential Emissions

Pursuant to 326 IAC 1-2-55, Potential Emissions are defined as "emissions of any one (1) pollutant which would be emitted from a facility, if that facility were operated without the use of pollution control equipment unless such control equipment is necessary for the facility to produce its normal product or is integral to the normal operation of the facility."

Pollutant	Potential Emissions (tons/year)
PM	79,932.85
PM-10	29,732.13
SO ₂	2,557.92
VOC	273.31
CO	206.74
NO _x	665.76

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

Potential Emissions for the Reciprocating Grate Clinker Cooler, identified as CLNKCOOL

Pollutant	Potential Emissions (tons/year)
PM	71.83
PM-10	28.03
SO ₂	0.00
VOC	0.00
CO	0.00
NO _x	0.00

- (a) The potential emissions (as defined in 326 IAC 1-2-55) of PM-10, SO₂, VOC, CO, and NO_x are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

- (c) Allowable emissions (as defined in the Indiana Rule) of PM and PM10 are greater than 25 tons per year. This facility was constructed in 1966, prior to the date of any Construction Permit program under Indiana rules. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is not required.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the July 28, 1997 AIRS Quick Look Report emission data.

Pollutant	Actual Emissions (tons/year)
PM	204.41
PM-10	204.41
SO ₂	25.69
VOC	4.47
CO	37.98
NO _x	99.41
HAP (specify)	-

County Attainment Status

The source is located in Morgan County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Morgan County has been designated as attainment for ozone.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Federal Rule Applicability

- (a) The source is not subject to the New Source Performance Standard 326 IAC 12, 40 CFR 60.670 through 60.676, Subpart OOO as it was constructed before the rule applicability date of August 31, 1983.
- (b) The kilns are not subject to the New Source Performance Standard 326 IAC 12, 40 CFR 60.730 through 60.737, Subpart UUU, as the kilns were constructed prior to the rule applicability date of April 23, 1986.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR 63, applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This source is a major source under 326 IAC 2-2 (PSD) but has not been through PSD review. This rule applies to sources commencing construction after August 7, 1977. This source was constructed prior to the applicability date. The 575 ton storage bin and 75 ton screening deck listed in permit CP-109-2469-00007 were never constructed. The unpermitted reciprocating grate clinker cooler was constructed prior to the applicability date. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of PM, PM-10, SO₂, NO_x, VOC and CO. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4 (Fugitive Dust Emissions). The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Visible Emissions Limitations)

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

- (a) Visible emissions shall not exceed an average of forty percent (40%) opacity in twenty-four (24) consecutive readings as determined by 326 IAC 5-1-4, and
- (b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions)

This source is subject to 326 IAC 6-4 for fugitive dust emissions. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), fugitive dust shall not be visible crossing the boundary or property line of a source. Observances of visible emissions crossing property lines may be refuted by factual data expressed in 326 IAC 6-4-2(1), (2) or (3).

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations) does not apply because the source is not located in a nonattainment area for particulate matter. The equipment listed in CP 109-2469-00007 were never constructed and there are no new sources of fugitive particulate matter emissions that had not received all the necessary preconstruction approvals before the 326 IAC 6-5 applicability date of December 13, 1985.

326 IAC 9-1-2 (Carbon Monoxide Emission Limitations)

326 IAC 9-1-2 (Carbon Monoxide Emission Limitations) does not apply because there are no petroleum refining, ferrous metal smelters, or refuse incineration and burning operations at the source.

326 IAC 10-1-3 (Nitrogen Oxide Limitations)

326 IAC 10-1-3 (Nitrogen Oxide Limitations) does not apply because the source is not located in Clark or Floyd counties.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) emissions for facilities at the source are limited as follows from the:

(a) pre-kiln shale processing operation which includes:

- (1) one (1) primary crusher (ID PK1), and
- (2) six (6) conveyors (ID PK3 through PK8),

Emissions from each of these facilities shall not exceed 58.51 pounds per hour when each operating at a process weight rate of 400,000 pounds per hour of raw shale (equivalent to 200 tons per hour).

- (3) one (1) secondary crusher (ID PK2)

Emissions from this facility shall not exceed 51.28 pounds per hour when operating at a process weight rate of 200,000 pounds per hour of raw shale (equivalent to 100 tons per hour).

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:

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

According to the emission calculations (See Appendix, page 2 and 3 of 9), when operating with the water spray system as control, the emissions from these facilities are:

- (1) one (1) primary crusher (ID PK1) pre-kiln shale processing operation has a potential to emit (PTE) PM of 0.14 pounds per hour,
- (2) one (1) secondary crusher (ID PK2) pre-kiln shale processing operation has a potential to emit (PTE) PM of 0.14 pounds per hour, and
- (3) six (6) conveyors (ID PK3 through PK8) pre-kiln shale processing operation each have a potential to emit (PTE) PM of 0.10 pounds per hour

therefore, the facilities are in compliance with the requirements. The water spray system shall be in operation at all times on the shale except when the ambient temperature is at or below the freezing point.

- (b) emissions from the two (2) rotary kilns (IDs K3 and K4) shall each not exceed 30.51 pounds per hour when each operating at a process weight rate of 40,000 pounds per hour of crushed shale (equivalent to 20 tons per hour).

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:

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

According to the emission calculations (See Appendix A, pages 4 through 7 of 9), when operating with the wet scrubber as a control, each of the two (2) rotary kilns (IDs K3 and K4) has a potential to emit (PTE) PM of 23.23 pounds per hour, and the facilities are in compliance with the requirements. The wet scrubber shall be in operation at all times the two (2) rotary kilns (IDs K3 and K4) are in operation, in order to comply with this limit.

- (c) emissions from the rotary kiln (ID K5) shall not exceed 42.53 pounds per hour when operating at a process weight rate of 80,000 pounds per hour of crushed shale (equivalent to 40 tons per hour).

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

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

According to the emission calculations (See Appendix A, pages 8 and 9 of 9), when operating with the baghouse as a control, the rotary kiln (ID K5) has a potential to emit (PTE) PM of 8.94 pounds per hour, and the facility is in compliance with the requirement. The baghouse shall be in operation at all times the rotary kiln (ID K5) is in operation, in order to comply with this limit.

- (d) one (1) haydite crusher line which includes:

- (1) one (1) primary haydite crusher (ID HCR1),
- (2) one (1) secondary haydite crusher (ID HCR2),
- (3) three (3) screens (ID HCR3 through HCR5), and
- (4) seven (7) conveyors (ID HCR9 through HCR14),

Emissions from each of these facilities shall not exceed 51.28 pounds per hour when each operating at a process weight rate of 200,000 pounds per hour of expanded shale (equivalent to 100 tons per hour).

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

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

According to the emission calculations (See Appendix A, pages 2 and 3 of 9), when operating with the water spray system as a control, the emissions from these facilities are:

- (1) one (1) primary haydite crusher (ID HCR1) has a potential to emit (PTE) PM of 0.07 pounds per hour,
- (2) one (1) secondary haydite crusher (ID HCR2) has a potential to emit (PTE) PM of 0.07 pounds per hour,
- (3) three (3) screens (ID HCR3 through HCR5) each have a potential to emit (PTE) PM of 1.05 pounds per hour,
- (4) seven (7) conveyors (ID HCR9 through HCR14) each have a potential to emit (PTE) PM of 0.04 pounds per hour,

Therefore, the facilities are in compliance with the requirements. The water spray system shall be in operation at all times on the shale except when the ambient temperature is at or below the freezing point.

- (e) emissions from the reciprocating grate clinker cooler (ID CLNKCOOL) shall not exceed 42.53 pounds per hour when operating at a process weight rate of 80,000 pounds per hour of expanded shale (equivalent to 40 tons per hour).

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

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

According to the emission calculations (See Appendix A, pages 2 and 3 of 9), when operating with the multiclone as a control, the reciprocating grate clinker cooler has a potential to emit (PTE) PM of 16.40 pounds per hour, and the facility is in compliance with the requirement. The multiclone shall be in operation at all times the reciprocating grate clinker cooler is in operation, in order to comply with this limit.

326 IAC 6-4 (Fugitive Dust Emissions)

Pursuant to OP-55-02-90-0093, issued on November 5, 1986, fugitive dust shall not be visible crossing the boundary or property line of a source. Observances of visible emissions crossing property lines may be refuted by factual data expressed in 326 IAC 6-4-2(1), (2) or (3). In order to comply with this limit:

- (a) the particulate matter (PM) from the primary and secondary pre-kiln shale crushers, haydite crusher and screens shall be controlled by a Water spray sprinkling system,
- (b) the particulate matter (PM) from the haydite stockpile shall be controlled by a separate sprinkling system.

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

Pursuant to OP-55-02-90-94, OP-55-02-90-95, and OP-55-02-90-96, the sulfur dioxide emissions from the rotary kilns (ID K 3, K4, and K5) when burning coal shall be limited to 6.0 pounds per million Btu of heat input from coal. Therefore, the sulfur dioxide (SO₂) content of coal delivered to the rotary kilns (ID K 3, K4, and K5) shall be limited to 2.4 % by weight,

According to the emission calculations:

- (a) the rotary kiln (ID K 3 and K 4) each have a potential to emit (PTE) SO₂ of 0.68 pounds per MMBtu, and

(b) the rotary kiln (ID K 5) has a potential to emit (PTE) SO₂ of 4.48 pounds per MMBtu.

Therefore, each facility is in compliance with the requirement. (See Appendix A, pages 4 through 9 of 9).

326 IAC 7-2-1(Sulfur Dioxide Emission Limitations)

Pursuant to 326 IAC 7-2-1 (Reporting Requirements), the source shall submit to the commissioner upon request: calendar month or average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate in pounds per million Btu.

326 IAC 8-1-6 (New Facilities: General Reduction Requirements)

326 IAC 8-1-6 (New Facilities: General Reduction Requirements) does not apply since there are no sources of VOC emissions that were constructed after the January 1, 1980 applicability date of this rule.

326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)

326 IAC 8-4-3 (Petroleum Liquid Storage Facilities) does not apply because the petroleum liquid storage vessels have capacities less than 39,000 gallons.

No other 326 IAC 8 rules apply.

Compliance Requirements

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

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

The compliance monitoring requirements applicable to this source are as follows:

- (a) The one (1) pre-kiln shale processing operation (ID PK1 through PK8) have applicable compliance monitoring conditions as specified below:
 - (a) Pursuant to OP-55-02-90-0093, issued on November 5, 1986, the water spray sprinkling system for PM control shall be in operation at all times on the shale except when the ambient temperature is at or below the freezing point.
 - (2) Daily visible emission notations of pre-kiln shale processing operation emissions shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal. 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. 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. 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. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

These monitoring conditions are necessary because the water spray sprinkling system for the one (1) pre-kiln shale processing operation must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

- (b) The three (3) rotary kilns (IDs K3, K4 and K5) have applicable compliance monitoring conditions as specified below:
- (1) The wet scrubber for PM control shall be in operation at all times when the two (2) rotary kilns (IDs K3 and K4) are in operation.
 - (2) The baghouse for PM control shall be in operation at all times when the one (1) rotary kiln (ID K5) is in operation.
 - (3) The Permittee shall record the total static pressure drop across the wet scrubber used in conjunction with the two (2) rotary kilns (IDs K3 and K4), at least once daily when the two (2) rotary kilns (IDs K3 and K4) are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the water flow rate across the wet scrubber shall be maintained above 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the one (1) rotary kiln (ID K5), at least once daily when the one (1) rotary kiln (ID K5) is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 3.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.
 - (4) An inspection shall be performed each calendar quarter of all bags controlling the one (1) rotary kiln (ID K5) operation when venting to the atmosphere. All defective bags shall be replaced.
 - (5) In the event that bag failure has been observed the affected compartments will be shut down immediately until the failed units have been repaired or replaced. For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to

the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion.

- (6) Daily 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) emissions shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal. 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. 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. 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. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

These monitoring conditions are necessary because the wet scrubber for the rotary kilns (IDs K3 and K4) and the baghouse for the one (1) rotary kiln (ID K5) must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

- (c) The one (1) haydite crusher line has applicable compliance monitoring conditions as specified below:
 - (1) Pursuant to OP-55-02-90-0093, issued on November 5, 1986, the sprinkling system for PM control shall be in operation at all times on the shale except when the ambient temperature is at or below the freezing point.
 - (2) Daily visible emission notations of the one (1) haydite crusher line exhaust 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. 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. 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. 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. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

These monitoring conditions are necessary because the sprinkling system for the one (1) haydite crusher line must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

- (d) The one (1) reciprocating grate clinker cooler has applicable compliance monitoring conditions as specified below:

- (1) The multiclone for PM control shall be in operation at all times when the one (1) reciprocating grate clinker cooler is in operation.
- (2) The Permittee shall record the total static pressure drop across the multiclone used in conjunction with the reciprocating grate clinker cooler, at least once daily when the reciprocating grate clinker cooler is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the air flow rate across the multiclone shall be maintained at least 63,000 acfm or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.
- (3) Daily visible emission notations of the one (1) reciprocating grate clinker cooler exhaust 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. 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. 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. 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. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

These monitoring conditions are necessary because the multiclone for the one (1) reciprocating grate clinker cooler must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 187 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Part 70 Application Form GSD-08.

Based on information available at the present time, there are no accepted emission factors to utilize to characterize HAP emissions from the industry. However, evaluations of HAP emissions from this industry are ongoing.

Conclusion

The operation of this stationary shale processing plant shall be subject to the conditions of the attached proposed **Part 70 Permit No. T109-6835-00007**.

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

Addendum to the
Technical Support Document (TSD) for a Part 70 Operating Permit

Source Background and Description

Source Name:	Hydraulic Press Brick Company
Source Location:	Centerton Road, Brooklyn, Indiana 46111
County:	Morgan
SIC Code:	3295
Operation Permit No.:	T109-6835-00007
Permit Reviewer:	Phillip Ritz/EVP

On September 16, 1998, the Office of Air Management (OAM) had a notice published in the Martinsville Daily Reporter & The Times, Martinsville & Mooresville, Indiana, stating that Hydraulic Press Brick Company had applied for a Part 70 Operating Permit for the operation of a stationary shale processing plant producing lightweight expanded shale aggregate. The notice also stated that OAM proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On November 20, 1998, Mark Thacker submitted comments on behalf of Hydraulic Press Brick Company. The summary of the comments and corresponding responses is as follows:

Comment #1

Condition B.27, page 20 of 46, This condition states that OAM may use "other credible evidence" in determining the compliance status of this plant. Hydraulic Press Brick understands that this language is intended to parallel EPA rulemaking in its Any Credible Evidence statute. Hydraulic Press Brick requests that this condition be deleted until such time as Indiana Air Pollution Rules are amended to contain a requirement comparable to the Federal statute.

Response #1

The IDEM now believes that this condition is not necessary and has removed it from the permit. The issues regarding credible evidence can be adequately addressed during a showing of compliance or noncompliance. Indiana's statutes, and the rules adopted under their authority, govern the admissibility of evidence in any proceeding. Indiana law contains no provisions that limit the use of any credible evidence and an explicit statement is not required in the permit.

~~**B.28** Credible Evidence [326 IAC 2-7-5(3)][62 Federal Register 8313][326 IAC 2-7-6]~~

~~Notwithstanding the conditions of this permit that state specific methods that may be used to assess compliance or noncompliance with applicable requirements, other credible evidence may be used to demonstrate compliance or non-compliance.~~

Comment #2

Condition C.17, page 25 of 46, Hydraulic Press Brick Company objects generally to the inclusion of requirements for a Compliance Monitoring Plan to "evaluate its continuous compliance with applicable requirements." Federal Title V regulations and guidance documents require only that Title V sources demonstrate "periodic" compliance with applicable requirements. This requirement exceeds the requirements of the Clean Air Act and exceeds the authority established under Indiana Air Pollution Control Rules.

Response #2

IDEM has worked with members of the Clean Air Act Advisory Council's Permit Committee, Indiana Manufacturing Association, Indiana Chamber of Commerce and individual applicants regarding the Preventive Maintenance Plan, the Compliance Monitoring Plan and the Compliance Response Plan. IDEM has clarified the preventive maintenance requirements by working with sources on draft language over the past two years. The plans are fully supported by rules promulgated by the Air Pollution Control Board. The plans are the mechanism each permittee will use to verify continuous compliance with its permit and the applicable rules and will form the basis for each permittee's Annual Compliance Certification. Each permittee's ability to verify continuous compliance with its air pollution control requirements is a central goal of the Title V and FESOP permit programs.

The regulatory authority for and the essential elements of a compliance monitoring plan were clarified in IDEM's Compliance Monitoring Guidance, in May 1996. IDEM originally placed all the preventive maintenance requirements in the permit section titled "Preventive Maintenance Plan." Under that section the permittee's Preventive Maintenance Plan (PMP) had to set out requirements for the inspection and maintenance of equipment both on a routine basis and in response to monitoring. Routine maintenance was a set schedule of inspections and maintenance of the equipment. The second was inspection and maintenance in response to monitoring that showed that the equipment was not operating in its normal range. This monitoring would indicate that maintenance was required to prevent the exceedance of an emission limit or other permit requirement. The maintenance plan was to set out the "corrective actions" that the permittee would take in the event an inspection indicated an "out of specification situation", and also set out the time frame for taking the corrective action. In addition, the PMP had to include a schedule for devising additional corrective actions for out of compliance situations that the source had not predicted in the PMP. All these plans, actions and schedules were part of the Preventive Maintenance Plan, with the purpose of maintaining the permittee's equipment so that an exceedance of an emission limit or violation of other permit requirements could be prevented.

After issuing the first draft Title V permits on public notice in July of 1997, IDEM received comments from members of the regulated community regarding many of the draft permit terms, including the PMP requirements. One suggestion was that the corrective action and related schedule requirements be removed from the PMP requirement and placed into some other requirement in the permit. This suggestion was based, in some part, on the desire that a permittee's maintenance staff handle the routine maintenance of the equipment, and a permittee's environmental compliance and engineering staff handle the compliance monitoring and steps taken in reaction to an indication that the facility required maintenance to prevent an environmental problem.

IDEM carefully considered this suggestion and agreed to separate the "corrective actions" and related schedule requirements from the PMP. These requirements were placed into a separate requirement, which IDEM named the Compliance Response Plan (CRP). In response to another comment, IDEM changed the name of the "corrective actions" to "response steps." That is how the present CRP requirements became separated from the PMP requirement, and acquired their distinctive nomenclature.

Other comments sought clarification on whether the failure to follow the PMP was violation of the permit. The concern was that a permittee's PMP might call for the permittee to have, for example, three "widget" replacement parts in inventory. If one widget was taken from inventory for use in maintenance, then the permittee might be in violation of the PMP, since there were no longer three widgets in inventory, as required by the PMP. Comments also expressed a view that if a maintenance employee was unexpectedly delayed in making the inspection under the PMP's schedule, for example by the employee's sudden illness, another permit violation could occur, even though the equipment was still functioning properly.

IDEM considered the comments and revised the PMP requirement so that if the permittee fails to follow its PMP, a permit violation will occur only if the lack of proper maintenance causes or contributes to a violation of any limitation on emissions or potential to emit. This was also the second basis for separating the compliance maintenance response steps from the PMP and placing them in the Compliance Response Plan (CRP). Unlike the PMP, the permittee must conduct the required monitoring and take any response steps as set out in the CRP (unless otherwise excused) or a permit violation will occur.

The Compliance Monitoring Plan is made up of the PMP, the CRP, the compliance monitoring and compliance determination requirements in section D of the permit, and the record keeping and reporting requirements in sections C and D. IDEM decided to list all these requirements under this new name, the Compliance Monitoring Plan (CMP), to distinguish them from the PMP requirements. The section D provisions set out which facilities must comply with the CMP requirement. The authority for the CMP provisions is found at 326 IAC 2-7-5(1), 2-7-5(3), 2-7-5(13), 2-7-6(1), 1-6-3 and 1-6-5.

Most permittees already have a plan for conducting preventive maintenance for the emission units and control devices. It is simply a good business practice to have identified the specific personnel whose job duties include inspecting, maintaining and repairing the emission control devices. The emission unit equipment and the emission control equipment may be covered by a written recommendation from the manufacturer set out schedules for the regular inspection and maintenance of the equipment. The permittee will usually have adopted an inspection and maintenance schedule that works for its particular equipment and process in order to keep equipment downtime to a minimum and achieve environmental compliance. The manufacturer may also have indicated, or the permittee may know from experience, what replacement parts should be kept on hand. The permittee may already keep sufficient spare parts on hand so that if a replacement is needed, it can be quickly installed, without a delay in the permittee's business activities and without an environmental violation. For the most part, the PMP can be created by combining present business practices and equipment manufacturer guidance into one document, the Preventive Maintenance Plan (PMP).

The permittee has 90 days to prepare, maintain and implement the PMP. IDEM is not going to draft the PMP. Permittees know their processes and equipment extremely well and are in the best position to draft the PMP. IDEM's air inspectors and permit staff will be available to assist the permittee with any questions about the PMP. IDEM may request a copy of the PMP to review and approve.

The Preventive Maintenance Plan requirement must be included in every applicable Title V permit pursuant to 326 IAC 2-7-5(13) and for each FESOP permit pursuant to 326 IAC 2-8-4(9). Both of those rules refer back to the Preventive Maintenance Plan requirement as described in 326 IAC 1-6-3. This Preventive Maintenance Plan rule sets out the requirements for:

- (1) Identification of the individuals responsible for inspecting, maintaining and repairing the emission control equipment (326 IAC 1-6-3(a)(1)),
- (2) The description of the items or conditions in the facility that will be inspected and the inspection schedule for said items or conditions (326 IAC 1-6-3(a)(2)), and
- (3) The identification and quantification of the replacement parts for the facility which the permittee will maintain in inventory for quick replacement (326 IAC 1-6-3(a)(2)).

It is clear from the structure of the wording in 326 IAC 1-6-3 that the PMP requirement affects the entirety of the applicable facilities. Only 326 IAC 1-6-3(a)(1) is limited, in that it requires identification of the personnel in charge of only the emission control equipment, and not any other facility equipment. The commissioner may require changes in the maintenance plan to reduce excessive malfunctions in any control device or combustion or process equipment under 326 IAC 1-6-5.

The CRP requirement of response steps and schedule requirements are another example of documenting procedures most permittees already have developed in the course of good business practices and the prevention of environmental problems. Equipment will often arrive with the manufacturer's trouble shooting guide. It will specify the steps to take when the equipment is not functioning correctly. The steps may involve some initial checking of the system to locate the exact cause, and other steps to place the system back into proper working order. Using the trouble shooting guide and the permittee's own experience with the equipment, the steps are taken in order and as scheduled until the problem is fixed.

A permittee will likely already have a procedure to follow when an unforeseen problem situation occurs. The procedure may list the staff to contact in order to select a course of action, or other step, before the equipment problem creates an environmental violation or interrupts the permittee's business process.

The Compliance Monitoring Plan (CMP) is consistent with IDEM's Compliance Monitoring Guidance released in May of 1996. The guidance discusses corrective action plans setting out the steps to take when compliance monitoring shows an out of range reading (Guidance, page 13). Some of the terminology has changed, as a result of comments from regulated sources, but the requirements in the permit do not conflict with the guidance. There are no changes in the condition.

Comment #3

Condition D.1.2, page 31 of 46, and D.3.2, page 38 of 46, Hydraulic Press Brick Company believes that Preventive Maintenance Plans are required for pieces of air pollution control equipment, and should not be required for a water spray system.

Response #3

Pursuant to 326 IAC 2-7-4(c)(9) (Permit Application), confirmation that the source maintains on-site a preventive maintenance plan as described in 326 IAC 1-6-3, must be included in the permit application. Pursuant to 326 IAC 2-7-5(13) (Permit Content), a provision that requires the source to do all of the following must be included in each Part 70 permit:

- (a) Maintain on-site the preventive maintenance plan as required under 326 IAC 2-7-4(c)(9);
- (b) Implement the preventive maintenance plan; and,
- (c) Forward to the department upon request the preventive maintenance plan.

The requirements in 326 IAC 1-6-1 and 326 IAC 1-6-3 specify that the requirement to maintain a Preventive Maintenance Plan is applicable to any facility that is required to obtain a permit under 326 IAC 2-1-2 (Registration) and 326 IAC 2-1-4 (Operating Permits). IDEM's compliance monitoring guidance states that a compliance monitoring plan is required only for:

- (a) the unit emits particulate matter, sulfur dioxide, or volatile organic compounds; and
- (b) the unit has existing applicable requirements; and
- (c) the unit is subject to a NSPS or NESHAP (for these units current requirements will satisfy as a compliance monitoring plan); or
- (d) the unit has a control device and the allowable emissions exceed 10 pounds per hour; or
- (e) the unit does not have a control device and has actual emissions exceeding 25 tons per year.

The guidance does not state that if a facility does not meet the above requirements, compliance monitoring will never be necessary, it does state that a compliance monitoring plan is not required to be submitted with the application. In most cases, the requirement to maintain a preventive maintenance plan and perform compliance monitoring has followed the same guidelines as specified above. However, there are some types of operations (i.e. woodworking) that the OAM has determined that compliance monitoring and preventive maintenance plans are necessary to ensure continuous compliance.

Any preventive maintenance that could effect emissions from the facilities in question should be listed in the Preventive Maintenance Plan. A water spray system would require preventive maintenance periodically to insure that it continues to function properly. There will be no change in Condition D.1.3 or D.3.2.

Comment #4

Condition D.1.3, page 31 of 46, Hydraulic Press Brick Company requests that this condition be deleted, as it references the potential for stack testing requirements. Stack testing is not feasible for this unit, since it has no stack.

Response #4

Testing the emissions from a stack is the preferred method for establishing the emission rate at any point in time and for calibrating other monitoring methods. This method has the advantage of being flexible and relatively accurate. The cost of continuous stack testing is considered prohibitive. Testing may be required to determine compliance with 326 IAC 6-3-2 (Process Operations). Although there is no existing stack venting this operation, the utilization of a stack to vent emissions from this unit is feasible. Additionally, a temporary enclosure would also allow venting to a stack for performance stack testing, if deemed necessary. Therefore, this condition will not be removed.

Comment #5

Condition D.1.4, page 31 of 46, Hydraulic Press Brick Company requests that this condition be revised to include an exemption (consistent with OP-55-02-90-0093) that does not require the use of the control system when the shale is wet.

Response #5

Condition D.1.4, page 31 of 6, and D.3.4, page 38 of 6, has been revised to read as follows (additions indicated in **boldface**, deletions indicated by ~~strikeout~~ for emphasis):

D.1.4 Particulate Matter (PM)

Pursuant to OP-55-02-90-0093, issued on November 5, 1986, the water spray sprinkling system for PM control shall be in operation at all times on the shale except when the ambient temperature is at or below the freezing point **or the shale already contains sufficient moisture.**

D.3.4 Particulate Matter (PM)

Pursuant to OP-55-02-90-0093, issued on November 5, 1986, the sprinkling system for PM control shall be in operation at all times on the shale except when the ambient temperature is at or below the freezing point **or the shale already contains sufficient moisture.**

Comment #6

Condition D.2.10, page 36 of 46, Hydraulic Press Brick Company does not believe that it is necessary to demonstrate compliance through both visible emissions notations (in this condition) and parametric monitoring (in Condition D.2.7). Hydraulic Press Brick requests that the requirement to conduct daily visible emissions notations for the emission units included in this Section be deleted, and the requirement to conduct pressure drop readings be increased to daily to provide compliance evaluations on the same frequency.

Response #6

Parametric monitoring in itself is not enough to ensure compliance with 326 IAC 6-3-2 and 326 IAC 5-1 as it can only show that the wet scrubber or the baghouse is operating properly, and not, for example, that fugitive dust is crossing property lines or that visible emissions have exceeded an average of forty percent (40%) opacity. The visible emission notations are a way of monitoring compliance with 326 IAC 6-3-2 and 326 IAC 5-1, without the requirement to have a person on site trained in opacity measurement. This requirement is designed as a trigger that the source perform some corrective action on the facility if visible emissions are abnormal, to ensure continuous compliance with emission limitations. The three (3) rotary kilns (IDs K3, K4 and K5) operations do require the wet scrubber (S/V ID ST4) and baghouse (S/V ID ST 5) to stay in compliance. Therefore, the visible emission observations are required for the three (3) rotary kilns operations as well.

Comment #7

Conditions D.2.11(d), page 37 of 46, and D.4.8(c), page 42 of 46, This condition requires that Hydraulic Press Brick Company maintain certain records to demonstrate compliance with Conditions D.2.8, Baghouse Inspections. The records identified in subcondition (1) includes the phrase ". . . and the dates the vents are redirected." Hydraulic Press Brick does not understand the intent of this phrase, and requests that it be deleted or clarified.

Response #7

The phrase ". . . and the dates the vents are redirected" refers to a change in the emissions routing for the unit. For example, the date would be recorded when a unit previously venting to the interior of a building was to vent to the exterior. Therefore, this condition will not be removed.

Comment #8

Condition D.4.5, page 37 of 46, This condition requires that Hydraulic Press Brick Company monitor and record pressure drop across the multiclone for the clinker cooler. The condition, however, does not provide acceptable values for these pressure drop readings, and instead requires demonstration that the air flow rate is 63,000 acfm. Hydraulic Press Brick requests that the reference to air flow rate be deleted, and that an acceptable pressure drop range be incorporated into the condition. Based upon Hydraulic Press Brick's experience with this equipment, a pressure drop range of 1 to 3 inches appears to be appropriate for this unit.

Response #8

Condition D.4.5, page 40 of 46, has been revised to read as follows (additions indicated in **boldface**, deletions indicated by ~~strikeout~~ for emphasis):

D.4.5 Parametric Monitoring

The Permittee shall record the total static pressure drop across the multiclone used in conjunction with the reciprocating grate clinker cooler, at least once daily when the reciprocating grate clinker cooler is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, ~~the air flow rate~~ **pressure drop** across the multiclone shall be maintained ~~at least 63,000 acfm~~ **within the range of 1.0 and 3.0 inches of water** or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

Comment #9

Condition D.4.8(b)(1)(A), page 41 of 46, This clause requires that records of air flow rate be maintained. However, Condition D.4.5 (discussed above) requires retention of pressure drop readings. Hydraulic Press Brick Company requests that this requirement be reworded to reference pressure drop readings rather than air flow records.

Response #9

Condition D.4.8(b)(1)(A), page 41 of 46, has been revised to read as follows (additions indicated in **boldface**, deletions indicated by ~~strikeout~~ for emphasis):

D.4.8 Record Keeping Requirements

- (a) To document compliance with Conditions D.4.1 and D.4.7, the Permittee shall maintain records of daily visible emission notations of the one (1) reciprocating grate clinker cooler stack exhaust.
- (b) To document compliance with Condition D.4.5, the Permittee shall maintain the following as pertains to the multiclone:
 - (1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:
 - (A) ~~Air flow rate across the multiclone, and~~ **Inlet and outlet differential static pressure.**

The following revisions have been made to the Technical Support Document under Compliance Requirements (**bolded** language has been added, the language with a ~~line~~ through it has been deleted). The OAM prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

- (a) The one (1) pre-kiln shale processing operation (ID PK1 through PK8) have applicable compliance monitoring conditions as specified below:
 - (1) Pursuant to OP-55-02-90-0093, issued on November 5, 1986, the water spray sprinkling system for PM control shall be in operation at all times on the shale except when the ambient temperature is at or below the freezing point **or the shale already contains sufficient moisture.**

and:

- (c) The one (1) haydite crusher line has applicable compliance monitoring conditions as specified below:
- (1) Pursuant to OP-55-02-90-0093, issued on November 5, 1986, the sprinkling system for PM control shall be in operation at all times on the shale except when the ambient temperature is at or below the freezing point **or the shale already contains sufficient moisture.**

The following revisions have been made to the TSD (**bolded** language has been added, the language with a ~~line~~ through it has been deleted). The OAM prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

- (d) The one (1) reciprocating grate clinker cooler has applicable compliance monitoring conditions as specified below:
- (1) The multiclone for PM control shall be in operation at all times when the one (1) reciprocating grate clinker cooler is in operation.
- (2) The Permittee shall record the total static pressure drop across the multiclone used in conjunction with the reciprocating grate clinker cooler, at least once daily when the reciprocating grate clinker cooler is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, ~~the air flow rate~~ **pressure drop** across the multiclone shall be maintained ~~at least 63,000 acfm~~ **within the range of 1.0 and 3.0 inches of water** or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

Upon further review from the OAM, the OAM has decided to make the following changes to the Part 70 Operating Permit (additions indicated in **boldface**, deletions indicated by ~~strikeout~~ for emphasis):

- 1) Condition C.2 has been revised to reflect current rule language. The condition has been changed to:

C.2 Opacity [326 IAC 5-1]

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

- (a) ~~Visible emissions~~ **Opacity** shall not exceed an average of forty percent (40%) ~~opacity~~ in ~~twenty four (24) consecutive readings,~~ **any one (1) six (6) minute averaging period** as determined in 326 IAC 5-1-4.

- (b) ~~Visible emissions~~ **Opacity** shall not exceed sixty percent (60%) ~~opacity~~ 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.
- 2) The OAM has determined that testing will be required for both of the two kilns (ID K3 and K4), as testing on only one of the two kilns would place half the inlet loading on the scrubber controlling particulate matter. In order to keep the individual limits that 6-3 gives each kiln, the individual limits for 6-3-2 have been combined to allow testing with both kilns operating.

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

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from each of the:

- 1) two (2) rotary kilns (IDs K3 and K4) shall not exceed 30.51 pounds per hour each when operating at a process weight rate of 40,000 pounds per hour (equivalent to 20 tons per hour). **When both of the two (2) rotary kilns (IDs K3 and K4) are operating the allowable PM emission rate from stack ST4 shall not exceed the sum of the individual limits for each kiln (equivalent to 61.02 pounds per hour).**
- 3) Condition D.2.4 (Testing Requirements), for the one (1) Kiln (ID K5) and one of the two (2) Kilns (ID K3 and K4) has been changed to reference Method 5 or 17, not Method 7, which is for NOx. Language has been added to require testing for both of the two kilns (ID K3 and K4): Therefore, Condition D.2.4 has been revised (changes indicated in bold face or strikeout):

D.2.4 Testing Requirements [326 IAC 2-7-6(1),(6)]

During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM testing on the one (1) Kiln (ID K5) and ~~both one~~ of the two (2) Kilns (ID K3 and K4) utilizing Methods **5 or 17** (40 CFR 60, Appendix A) for PM or other 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. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

- 4) Torn or otherwise failed bags can have a dramatic effect on bag house performance and few sources have reliable information that demonstrates that compliance can be achieved when compartments are "on line" with torn bags. The condition has been revised as follows to clarify that the emergency provisions of the Title V rule and the corresponding condition in this permit may take precedence if applicable.

D.2.9 Broken or Failed Bag or Failure Detection

In the event that bag failure has been observed.

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. ~~For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced.~~ **Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. 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) ~~Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. For single compartment baghouses, 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).~~
- 5) Upon further review, the OAM has decided to make the following revisions to the TSD (**bolded** language has been added, the language with a ~~line~~ through it has been deleted). The OAM prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.
- (5) In the event that bag failure has been observed the affected compartments will be shut down immediately until the failed units have been repaired or replaced. The affected compartments will be shut down immediately until the failed units have been repaired or replaced. ~~For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. 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).~~ **Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. 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).**

Total Source Emissions Appendix A: Emission Calculations

Company Name: Hydraulic Press Brick Company
Address City IN Zip: Centerton Road, Brooklyn, IN, 46111
CP: T109-6835
Plt ID: 109-00007
Reviewer: PR/EVP
Date: 10/7/96

Uncontrolled Emissions (tons/year)

Emissions Generating Activity

Pollutant	Emissions from Prekiln, Haydite Crusher, and Clinker Cooler tons per year	Kiln 3 Coal Emissions tons per year	Kiln 3 Gas* Emissions tons per year	Kiln 4 Coal Emissions tons per year	Kiln 4 Gas* Emissions tons per year	Kiln 5 Coal Emissions tons per year	Kiln 5 Gas* Emissions tons per year	TOTAL Emissions tons per year
PM	94.21	20,349.48	N/A	20,349.48	N/A	39,139.68	N/A	79,932.85
PM10	35.73	7,568.64	N/A	7,568.64	N/A	14,559.12	N/A	29,732.13
SO2	0.00	297.84	N/A	297.84	N/A	1,962.24	N/A	2,557.92
NOx	0.00	166.44	N/A	166.44	N/A	332.88	N/A	665.76
VOC	0.00	68.33	N/A	68.33	N/A	136.66	N/A	273.31
CO	0.00	51.68	N/A	51.68	N/A	103.37	N/A	206.74
total HAPs	0.00	0.00	N/A	0.00	N/A	0.00	N/A	0.00
worst case single HAP	0.00	0.00	N/A	0.00	N/A	0.00	N/A	0.00

Controlled Emissions (tons/year)

Emissions Generating Activity

Pollutant	Emissions from Prekiln, Haydite Crusher, and Clinker Cooler tons per year	Kiln 3 Coal Emissions tons per year	Kiln 3 Gas* Emissions tons per year	Kiln 4 Coal Emissions tons per year	Kiln 4 Gas* Emissions tons per year	Kiln 5 Coal Emissions tons per year	Kiln 5 Gas* Emissions tons per year	TOTAL Emissions tons per year
PM	77.41	101.75	N/A	101.75	N/A	39.14	N/A	320.04
PM10	30.37	37.84	N/A	37.84	N/A	14.56	N/A	120.62
SO2	0.00	297.84	N/A	297.84	N/A	1,962.24	N/A	2,557.92
NOx	0.00	166.44	N/A	166.44	N/A	332.88	N/A	665.76
VOC	0.00	68.33	N/A	68.33	N/A	136.66	N/A	273.31
CO	0.00	51.68	N/A	51.68	N/A	103.37	N/A	206.74
total HAPs	0.00	0.00	N/A	0.00	N/A	0.00	N/A	0.00
worst case single HAP	0.00	0.00	N/A	0.00	N/A	0.00	N/A	0.00

Methodology:

Total emissions based on rated capacity at 8,760 hours/year, before control.

*Worst case emissions are used for the three (3) kilns (ID K3, K4, K5). Worst case emissions for all 3 kilns are from coal.

Company Name: Hydraulic Press Brick Company
Address City IN Zip: Centerton Road, Brooklyn, IN, 46111
CP: T109-6835
Pit ID: 109-00007
Reviewer: PR/EVP
Date: 10/7/96

* * emissions before controls * *

Unit Identification	No. of units					
Storage					0.00 tons/yr	AP-42 Ch.11.2.3
Transporting					1.48 tons/yr	AP-42 Ch.11.2.1
Loading and Unloading					1.40 tons/yr	AP-42 Ch.11.2.3
PK1	1	200 ton/hr x	0.0016 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	
Crushing (primary)	1	200 ton/hr x	0.0007 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	0.61 tons/yr
PK2	1	200 ton/hr x	0.0007 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	0.61 tons/yr
Crushing (secondary)	1	100 ton/hr x	0.0007 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	0.31 tons/yr
HCR1	1	100 ton/hr x	0.0007 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	0.31 tons/yr
HCR2	1	100 ton/hr x	0.0007 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	0.31 tons/yr
Crushing (secondary)	1	40 ton/hr x	0.41 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	71.83 tons/yr
CLNKCOOL	1	40 ton/hr x	0.41 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	71.83 tons/yr
Clinker Cooler	1	40 ton/hr x	0.41 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	71.83 tons/yr
PK6-PK8	6	200 ton/hr x	0.0029 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	2.58 tons/yr
Conveyor Transfer	6	200 ton/hr x	0.0029 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	2.58 tons/yr
HCR9-HCR14	8	100 ton/hr x	0.0029 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	1.29 tons/yr
Conveyor Transfer	8	100 ton/hr x	0.0029 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	1.29 tons/yr
HCR3-HCR5	3	100 ton/hr x	0.0315 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	13.80 tons/yr
Screening	3	100 ton/hr x	0.0315 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	13.80 tons/yr
Total emissions before controls:						94.21 tons/yr

Storage	0.00 tons/yr x	100% emitted after controls =	0.00 tons/yr
Transporting	1.48 tons/yr x	100% emitted after controls =	1.48 tons/yr
Loading and Unloading	1.40 tons/yr x	100% emitted after controls =	1.40 tons/yr
PK1	0.61 tons/yr x	5% emitted after controls =	0.03 tons/yr
Crushing (primary)	0.61 tons/yr x	5% emitted after controls =	0.03 tons/yr
PK2	0.61 tons/yr x	5% emitted after controls =	0.03 tons/yr
Crushing (secondary)	0.31 tons/yr x	10% emitted after controls =	0.03 tons/yr
HCR1	0.31 tons/yr x	10% emitted after controls =	0.03 tons/yr
HCR2	0.31 tons/yr x	10% emitted after controls =	0.03 tons/yr
Crushing (secondary)	71.83 tons/yr x	100% emitted after controls =	71.83 tons/yr
CLNKCOOL	71.83 tons/yr x	100% emitted after controls =	71.83 tons/yr
Clinker Cooler	71.83 tons/yr x	100% emitted after controls =	71.83 tons/yr
PK6-PK8	2.58 tons/yr x	100% emitted after controls =	2.58 tons/yr
Conveyor Transfer	2.58 tons/yr x	100% emitted after controls =	2.58 tons/yr
HCR9-HCR14	1.29 tons/yr x	100% emitted after controls =	1.29 tons/yr
Conveyor Transfer	1.29 tons/yr x	100% emitted after controls =	1.29 tons/yr
HCR3-HCR5	13.80 tons/yr x	100% emitted after controls =	13.80 tons/yr
Screening	13.80 tons/yr x	100% emitted after controls =	13.80 tons/yr
Total emissions after controls:			77.41 tons/yr

* * fugitive vs. nonfugitive * *

Storage	0.00 tons/yr x	100% emitted after controls =	0.00 tons/yr
Transporting	1.48 tons/yr x	100% emitted after controls =	1.48 tons/yr
Loading and Unloading	2.58 tons/yr x	100% emitted after controls =	2.58 tons/yr
Total fugitive emissions:			4.05 tons/yr
PK1	0.61 tons/yr x	5% emitted after controls =	0.03 tons/yr
Crushing (primary)	0.61 tons/yr x	5% emitted after controls =	0.03 tons/yr
PK2	0.61 tons/yr x	5% emitted after controls =	0.03 tons/yr
Crushing (secondary)	0.31 tons/yr x	10% emitted after controls =	0.03 tons/yr
HCR1	0.31 tons/yr x	10% emitted after controls =	0.03 tons/yr
HCR2	0.31 tons/yr x	10% emitted after controls =	0.03 tons/yr
Crushing (secondary)	71.83 tons/yr x	100% emitted after controls =	71.83 tons/yr
CLNKCOOL	71.83 tons/yr x	100% emitted after controls =	71.83 tons/yr
Clinker Cooler	71.83 tons/yr x	100% emitted after controls =	71.83 tons/yr
PK6-PK8	2.58 tons/yr x	5% emitted after controls =	0.13 tons/yr
Conveyor Transfer	2.58 tons/yr x	5% emitted after controls =	0.13 tons/yr
HCR9-HCR14	1.29 tons/yr x	10% emitted after controls =	0.13 tons/yr
Conveyor Transfer	1.29 tons/yr x	10% emitted after controls =	0.13 tons/yr
HCR3-HCR5	13.80 tons/yr x	10% emitted after controls =	1.38 tons/yr
Screening	13.80 tons/yr x	10% emitted after controls =	1.38 tons/yr
Total nonfugitive emissions:			73.59 tons/yr

* * storage * *

Storage emissions, which result from wind erosion, are determined by the following calculations:

$$E_f = 1.7 \cdot (s/1.5)^{1/4} \cdot (365-p) / 235 \cdot (l/15)$$

$$= 1.85 \text{ lb/acre/day}$$

where s = 1.6 % silt content of material
 p = 125 days of rain greater than or equal to 0.01 inches
 f = 15 % of wind greater than or equal to 12 mph

$$E_p (\text{storage}) = E_f \cdot sc \cdot (40 \text{ cuft/ton}) / (2000 \text{ lb/ton}) / (43560 \text{ sqft/acre}) / (25 \text{ ft})^3 / (365 \text{ day/yr})$$

$$= 0.00 \text{ tons/yr}$$

where sc = 0.000 tons storage capacity

* * unpaved roads * *

The following calculations determine the amount of emissions created by unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

$$\frac{4}{0.0757575} \text{ trip/hr x mile/trip x (round trip) x 8760 hr/yr = 5309.09 miles per year}$$

$$E_f = k \cdot 5.9 \cdot (s/12)^{1/4} \cdot (S/30)^{1/4} \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365)$$

$$= 0.56 \text{ lb/mile}$$

where k = 0.8 multiplier
 s = 4.8 % silt content of unpaved roads
 p = 125 days of rain greater than or equal to 0.01 inches
 S = 5 miles/hr vehicle speed
 W = 9 tons average vehicle weight
 w = 6 wheels

$$\frac{0.56 \text{ lb/mi x 5,309.09 mi/yr}}{2000 \text{ lb/ton}} = 1.48 \text{ tons/yr}$$

* * aggregate handling * *

The following calculations determine the amount of emissions created by truck loading and unloading of aggregate, based on 8760 hours of use and AP-42, Ch 11.2.3.

$$E_f = k \cdot (0.0032)^{1/4} \cdot (U/5)^{1/3} \cdot (M/2)^{1/4}$$

$$= 0.0016 \text{ lb/ton}$$

where k = 0.74 (particle size multiplier)
 U = 10 mile/hr mean wind speed
 M = 5 % material moisture content

Methodology:

Haytle Crusher 1 and 2. Emission and control factors based on AP-42 11.19.2.2.

Preklin: Emission and control factors based on AP-42 11.19.2.2.

Clinker Cooler: AP-42, Sec. 11.20 provides emission factors of 0.30 lb PM10/ton feed and 0.12 lb PM10/ton feed for clinker cooler with multiclone controls. These have been adjusted by the applicant to 0.41 lb PM10/ton finished product and 0.16 PM10/ton finished product, based upon the expected ratio of finished product to feed.

Total Emissions in tons/year = average emissions in lb/ton * maximum rate tons/year * 1 ton/2000lbs

*Total emissions based on rated capacity at 8,760 hours/year, with multiclone control efficiency included in the emission factor.

Company Name: Hydraulic Press Brick Company
Address City IN Zip: Centerton Road, Brooklyn, IN, 46111
CP: T109-6835
Pit ID: 109-00007
Reviewer: PR/EVP
Date: 10/7/96

** emissions before controls **

Unit Identification	No. of units						
Storage						0.00 tons/yr	AP-42 Ch.11.2.3
Transporting						1.48 tons/yr	AP-42 Ch.11.2.1
Unloading PM-10	1	200 ton/hr x	0.00002 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	0.01 tons/yr	AP-42 Ch.11.19.2-2
PK1 Loading PM-10	1	200 ton/hr x	0.0001 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	0.09 tons/yr	AP-42 Ch.11.19.2-2
PK1 Crushing (primary)	1	200 ton/hr x	0.0007 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	0.61 tons/yr	AP-42 Ch.11.19.2-2
PK2 Crushing (secondary)	1	200 ton/hr x	0.0007 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	0.61 tons/yr	AP-42 Ch.11.19.2-2
HCR1 Crushing (primary)	1	100 ton/hr x	0.0007 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	0.31 tons/yr	AP-42 Ch.11.19.2-2
HCR2 Crushing (secondary)	1	100 ton/hr x	0.0007 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	0.31 tons/yr	AP-42 Ch.11.19.2-2
CLNKCOOL Clinker Cooler PM-10	1	40 ton/hr x	0.16 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	28.03 tons/yr	AP-42 Ch.11.20
PK6-PK8 Conveyor Transfer PM-10	6	200 ton/hr x	0.0007 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	0.63 tons/yr	AP-42 Ch.11.19.2-2
HCR9-HCR14 Conveyor Transfer PM-10	8	100 ton/hr x	0.0007 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	0.32 tons/yr	AP-42 Ch.11.19.2-2
HCR3-HCR5 Screening PM-10	3	100 ton/hr x	0.0076 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	3.33 tons/yr	AP-42 Ch.11.19.2-2
Total emissions before controls:						35.73 tons/yr	

Unit Identification							
Storage		0.00 tons/yr x	100% emitted after controls =			0.00 tons/yr	
Transporting		1.48 tons/yr x	100% emitted after controls =			1.48 tons/yr	
Unloading PM-10		0.01 tons/yr x	100% emitted after controls =			0.01 tons/yr	
PK1 Loading PM-10		0.09 tons/yr x	100% emitted after controls =			0.09 tons/yr	
PK1 Crushing (primary)		0.61 tons/yr x	5% emitted after controls =			0.03 tons/yr	
PK2 Crushing (secondary)		0.61 tons/yr x	5% emitted after controls =			0.03 tons/yr	
HCR1 Crushing (primary)		0.31 tons/yr x	10% emitted after controls =			0.03 tons/yr	
HCR2 Crushing (secondary)		0.31 tons/yr x	10% emitted after controls =			0.03 tons/yr	
CLNKCOOL Clinker Cooler PM-10		28.03 tons/yr x	100% emitted after controls =			28.03 tons/yr	
PK6-PK8 Conveyor Transfer PM-10		0.63 tons/yr x	100% emitted after controls =			0.63 tons/yr	
HCR9-HCR14 Conveyor Transfer PM-10		0.32 tons/yr x	100% emitted after controls =			0.32 tons/yr	
HCR3-HCR5 Screening PM-10		3.33 tons/yr x	100% emitted after controls =			3.33 tons/yr	
Total emissions after controls:						30.37 tons/yr	

** fugitive vs. nonfugitive **

Unit Identification							
Storage		0.00 tons/yr x	100% emitted after controls =			0.00 tons/yr	
Transporting		1.48 tons/yr x	100% emitted after controls =			1.48 tons/yr	
Unloading PM-10		0.63 tons/yr x	100% emitted after controls =			0.63 tons/yr	
PK1 Loading PM-10		0.32 tons/yr x	100% emitted after controls =			0.32 tons/yr	
Total fugitive emissions:						2.11 tons/yr	
PK1 Crushing (primary)		0.61 tons/yr x	5% emitted after controls =			0.03 tons/yr	
PK2 Crushing (secondary)		0.61 tons/yr x	5% emitted after controls =			0.03 tons/yr	
HCR1 Crushing (primary)		0.31 tons/yr x	10% emitted after controls =			0.03 tons/yr	
HCR2 Crushing (secondary)		0.31 tons/yr x	10% emitted after controls =			0.03 tons/yr	
CLNKCOOL Clinker Cooler PM-10		28.03 tons/yr x	100% emitted after controls =			28.03 tons/yr	
PK6-PK8 Conveyor Transfer PM-10		0.63 tons/yr x	5% emitted after controls =			0.03 tons/yr	
HCR9-HCR14 Conveyor Transfer PM-10		0.32 tons/yr x	10% emitted after controls =			0.03 tons/yr	
HCR3-HCR5 Screening PM-10		3.33 tons/yr x	10% emitted after controls =			0.33 tons/yr	
Total nonfugitive emissions:						28.55 tons/yr	

** storage **

Storage emissions, which result from wind erosion, are determined by the following calculations:

$$E_f = 1.7 \cdot (s/1.5)^{1.5} \cdot (365-p)/235 \cdot (f/15)$$

$$= 1.85 \text{ lb/acre/day}$$

where s = 1.6 % silt content of material
 p = 125 days of rain greater than or equal to 0.01 inches
 f = 15 % of wind greater than or equal to 12 mph

$$E_p (\text{storage}) = E_f \cdot sc \cdot (40 \text{ cuft/ton}) / (2000 \text{ lb/ton}) / (43560 \text{ sqft/acre}) / (25 \text{ ft}) \cdot (365 \text{ day/yr})$$

$$= 0.00 \text{ tons/yr}$$

where sc = 0.000 tons storage capacity

** unpaved roads **

The following calculations determine the amount of emissions created by unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

$$\frac{4}{0.0757575} \text{ trip/hr x mile/trip x } \frac{2}{8760} \text{ (round trip) x hr/yr} = 5309.09 \text{ miles per year}$$

$$E_f = k \cdot 5.9 \cdot (s/12)^{1.5} \cdot (S/30)^{0.7} \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365)$$

$$= 0.56 \text{ lb/mile}$$

where k = 0.6 multiplier
 s = 4.8 % silt content of unpaved roads
 p = 125 days of rain greater than or equal to 0.01 inches
 S = 5 miles/hr vehicle speed
 W = 9 tons average vehicle weight
 w = 6 wheels

$$\frac{0.56 \text{ lb/mi x } 5309.09 \text{ mi/yr}}{2000 \text{ lb/ton}} = 1.48 \text{ tons/yr}$$

** aggregate handling **

The following calculations determine the amount of emissions created by truck loading and unloading of aggregate, based on 8760 hours of use and AP-42, Ch 11.2.3.

$$E_f = k \cdot (0.0032)^{1.5} \cdot (U/5)^{1.3} \cdot (M/2)^{1.4}$$

$$= 0.0016 \text{ lb/ton}$$

where k = 0.74 (particle size multiplier)
 U = 10 mile/hr mean wind speed
 M = 5 % material moisture content

Methodology:

Haydite Crusher 1 and 2: Emission and control factors based on AP-42 11.19.2.2.
 Preklin: Emission and control factors based on AP-42 11.19.2.2.
 Clinker Cooler: AP-42, Sec. 11.20 provides emission factors of 0.30 lb PM10/ton feed and 0.12 lb PM10/ton feed for clinker cooler with multiclone controls. These have been adjusted by the applicant to 0.41 lb PM10/ton finished product and 0.16 PM10/ton finished product, based upon the expected ratio of finished product to feed.
 Total Emissions in tons/year = average emissions in lb/ton * maximum rate tons/year * 1 ton/2000lbs
 *Total emissions based on rated capacity at 8,760 hours/year, with multiclone control efficiency included in the emission factor.

Kiln 3 Emissions from Bituminous Coal Appendix A: Emission Calculations

Company Name: Hydraulic Press Brick Company

Address City IN Zip: Centerton Road, Brooklyn, IN, 46111

CP: T109-6835

Plt ID: 109-00007

Reviewer: PR/EVP

Date: 10/7/96

Uncontrolled Emissions (tons/year)

Maximum rate tons/hr
Maximum rate tons/year

20
175,200.00

Emissions Generating Activity

Pollutant	Emissions from Kiln pounds per ton	Control Efficiency of wet scrubber	TOTAL Emissions tons per year
PM	232.30	0.00%	20,349.48
PM10	86.40	0.00%	7,568.64
SO2	3.40	0.00%	297.84
NOx	1.90	0.00%	166.44
VOC	0.78	0.00%	68.33
CO	0.59	0.00%	51.68
total HAPs	0.00	0.00%	0.00
worst case single HAP	0.00	0.00%	0.00

Controlled Emissions (tons/year)

Maximum rate tons/hr
Maximum rate tons/year

20
175,200.00

Emissions Generating Activity

Pollutant	Emissions from Kiln pounds per ton	Control Efficiency of wet scrubber	TOTAL Emissions tons per year
PM	232.30	99.50%	101.75
PM10	86.40	99.50%	37.84
SO2	3.40	0.00%	297.84
NOx	1.90	0.00%	166.44
VOC	0.78	0.00%	68.33
CO	0.59	0.00%	51.68
total HAPs	0.00	0.00%	0.00
worst case single HAP	0.00	0.00%	0.00

Methodology:

PM factor based on stack test data (before controls, with emission factor for pulverized coal added) submitted by the applicant.

Ratio of PM:PM10 based on AP-42 Sec. 11.20 ratios. Other factors from AP-42.

Sulfur dioxide emission factors from AP-42, 11.20-4 (emission factors for lightweight aggregate production).

Total Emissions in tons/year = average emissions in lb/ton * maximum rate tons/year* 1 ton/2000lbs

Total emissions based on rated capacity at 8,760 hours/year, before control.

Kiln 3 Emissions from Natural Gas Appendix A: Emission Calculations

Company Name: Hydraulic Press Brick Company
Address City IN Zip: Centerton Road, Brooklyn, IN, 46111
CP: T109-6835
Plt ID: 109-00007
Reviewer: PR/EVP
Date: 10/7/96

Without VOC and CO control

Uncontrolled Emissions (tons/year)

Maximum rate tons/hr	20
Maximum rate tons/year	175,200.00

Emissions Generating Activity

Pollutant	Emissions from Kiln pounds per ton	Control Efficiency of wet scrubber	TOTAL Emissions tons per year
PM	214.30	0.00%	18,772.68
PM10	79.70	0.00%	6,981.72
SO2	0.23	0.00%	20.15
NOx	0.89	0.00%	77.96
VOC	0.04	0.00%	3.50
CO	0.34	0.00%	29.78
total HAPs	0.00	0.00%	0.00
worst case single HAP	0.00	0.00%	0.00

Controlled Emissions (tons/year)

Maximum rate tons/hr	20
Maximum rate tons/year	175,200.00

Emissions Generating Activity

Pollutant	Emissions from Kiln pounds per ton	Control Efficiency of wet scrubber	TOTAL Emissions tons per year
PM	214.30	99.50%	93.86
PM10	79.70	99.50%	34.91
SO2	0.23	0.00%	20.15
NOx	0.89	0.00%	77.96
VOC	0.04	0.00%	3.50
CO	0.34	0.00%	29.78
total HAPs	0.00	0.00%	0.00
worst case single HAP	0.00	0.00%	0.00

Methodology:

PM, NOx, VOC, and CO factors from test data (before control for natural gas kiln

(before control for natural gas kiln (with emission factor for pulverized coal added)) submitted by the applicant.

Total Emissions in tons/year = average emissions in lb/ton * maximum rate tons/year* 1 ton/2000lbs

Total emissions based on rated capacity at 8,760 hours/year, before control.

Ratio of PM:PM10 based on AP-42 Sec. 11.20 ratios. Other factors from AP-42.

Sulfur dioxide factor is sum of natural gas factor (1.8 lb/ton) plus sulfur contribution from coal combustion (5.7 lb/ton).

Kiln 4 Emissions from Bituminous Coal Appendix A: Emission Calculations

Company Name: Hydraulic Press Brick Company

Address City IN Zip: Centerton Road, Brooklyn, IN, 46111

CP: T109-6835

Plt ID: 109-00007

Reviewer: PR/EVP

Date: 10/7/96

Uncontrolled Emissions (tons/year)

Maximum rate tons/hr
Maximum rate tons/year

20
175,200.00

Emissions Generating Activity

Pollutant	Emissions from Kiln pounds per ton	Control Efficiency of wet scrubber	TOTAL Emissions tons per year
PM	232.30	0.00%	20,349.48
PM10	86.40	0.00%	7,568.64
SO2	3.40	0.00%	297.84
NOx	1.90	0.00%	166.44
VOC	0.78	0.00%	68.33
CO	0.59	0.00%	51.68
total HAPs	0.00	0.00%	0.00
worst case single HAP	0.00	0.00%	0.00

Controlled Emissions (tons/year)

Maximum rate tons/hr
Maximum rate tons/year

20
175,200.00

Emissions Generating Activity

Pollutant	Emissions from Kiln pounds per ton	Control Efficiency of wet scrubber	TOTAL Emissions tons per year
PM	232.30	99.50%	101.75
PM10	86.40	99.50%	37.84
SO2	3.40	0.00%	297.84
NOx	1.90	0.00%	166.44
VOC	0.78	0.00%	68.33
CO	0.59	0.00%	51.68
total HAPs	0.00	0.00%	0.00
worst case single HAP	0.00	0.00%	0.00

Methodology:

PM factor based on stack test data (before controls, with emission factor for pulverized coal added) submitted by the applicant.

Ratio of PM:PM10 based on AP-42 Sec. 11.20 ratios. Other factors from AP-42.

Sulfur dioxide emission factors from AP-42, 11.20-4 (emission factors for lightweight aggregate production).

Total Emissions in tons/year = average emissions in lb/ton * maximum rate tons/year* 1 ton/2000lbs

Total emissions based on rated capacity at 8,760 hours/year, before control.

Kiln 4 Emissions from Natural Gas Appendix A: Emission Calculations

Company Name: Hydraulic Press Brick Company
Address City IN Zip: Centerton Road, Brooklyn, IN, 46111
CP: T109-6835
Plt ID: 109-00007
Reviewer: PR/EVP
Date: 10/7/96

Uncontrolled Emissions (tons/year)

Maximum rate tons/hr
 Maximum rate tons/year

20
175,200.00

Emissions Generating Activity

Pollutant	Emissions from Kiln pounds per ton	Control Efficiency of wet scrubber	TOTAL Emissions tons per year
PM	214.30	0.00%	18,772.68
PM10	79.70	0.00%	6,981.72
SO2	0.23	0.00%	20.15
NOx	0.89	0.00%	77.96
VOC	0.04	0.00%	3.50
CO	0.34	0.00%	29.78
total HAPs	0.00	0.00%	0.00
worst case single HAP	0.00	0.00%	0.00

Controlled Emissions (tons/year)

Maximum rate tons/hr
 Maximum rate tons/year

20
175,200.00

Emissions Generating Activity

Pollutant	Emissions from Kiln pounds per ton	Control Efficiency of wet scrubber	TOTAL Emissions tons per year
PM	214.30	99.50%	93.86
PM10	79.70	99.50%	34.91
SO2	0.23	0.00%	20.15
NOx	0.89	0.00%	77.96
VOC	0.04	0.00%	3.50
CO	0.34	0.00%	29.78
total HAPs	0.00	0.00%	0.00
worst case single HAP	0.00	0.00%	0.00

Methodology:

PM, NOx, VOC, and CO factors from test data (before control for natural gas kiln

(before control for natural gas kiln (with emission factor for pulverized coal added)) submitted by the applicant.

Total Emissions in tons/year = average emissions in lb/ton * maximum rate tons/year* 1 ton/2000lbs

Total emissions based on rated capacity at 8,760 hours/year, before control.

Ratio of PM:PM10 based on AP-42 Sec. 11.20 ratios. Other factors from AP-42.

Sulfur dioxide factor is sum of natural gas factor (1.8 lb/ton) plus sulfur contribution from coal combustion (5.7 lb/ton).

Kiln 5 Emissions from Bituminous Coal Appendix A: Emission Calculations

Company Name: Hydraulic Press Brick Company Page 8 of 9 App A
Address City IN Zip: Centerton Road, Brooklyn, IN, 46111
CP: T109-6835
Plt ID: 109-00007
Reviewer: PR/EVP
Date: 10/7/96

Uncontrolled Emissions (tons/year)

Maximum rate tons/hr **40**
 Maximum rate tons/year **350,400.00**

Emissions Generating Activity

Pollutant	Emissions from Kiln pounds per ton	Control Efficiency of baghouse	TOTAL Emissions tons per year
PM	223.40	0.00%	39,139.68
PM10	83.10	0.00%	14,559.12
SO2	11.20	0.00%	1,962.24
NOx	1.90	0.00%	332.88
VOC	0.78	0.00%	136.66
CO	0.59	0.00%	103.37
total HAPs	0.00	0.00%	0.00
worst case single HAP	0.00	0.00%	0.00

Controlled Emissions (tons/year)

Maximum rate tons/hr **40**
 Maximum rate tons/year **350,400.00**

Emissions Generating Activity

Pollutant	Emissions from Kiln pounds per ton	Control Efficiency of baghouse	TOTAL Emissions tons per year
PM	223.40	99.90%	39.14
PM10	83.10	99.90%	14.56
SO2	11.20	0.00%	1,962.24
NOx	1.90	0.00%	332.88
VOC	0.78	0.00%	136.66
CO	0.59	0.00%	103.37
total HAPs	0.00	0.00%	0.00
worst case single HAP	0.00	0.00%	0.00

Methodology:

PM, SO2, NOx, VOC, and CO factors from test data (before control for natural gas kiln

(before control for natural gas kiln (with emission factor for pulverized coal added)) submitted by the applicant.

Total Emissions in tons/year = average emissions in lb/ton * maximum rate tons/year* 1 ton/2000lbs

Total emissions based on rated capacity at 8,760 hours/year, before control.

Ratio of PM:PM10 based on AP-42 Sec. 11.20 ratios. Other factors from AP-42.

Sulfur dioxide factor is sum of natural gas factor (1.8 lb/ton) plus sulfur contribution from coal combustion (5.7 lb/ton).

Kiln 5 Emissions from Natural Gas Appendix A: Emission Calculations

Company Name: Hydraulic Press Brick Company
Address City IN Zip: Centerton Road, Brooklyn, IN, 46111
CP: T109-6835
Plt ID: 109-00007
Reviewer: PR/EVP
Date: 10/7/96

Uncontrolled Emissions (tons/year)

Maximum rate tons/hr
 Maximum rate tons/year

40
350,400.00

Emissions Generating Activity

Pollutant	Emissions from Kiln pounds per ton	Control Efficiency	TOTAL tons per year
PM	214.30	0.00%	37,545.36
PM10	79.70	0.00%	13,963.44
SO2	1.80	0.00%	315.36
NOx	0.89	0.00%	155.93
VOC	0.04	0.00%	7.01
CO	0.34	0.00%	59.57
total HAPs	0.00	0.00%	0.00
worst case single HAP	0.00	0.00%	0.00

Controlled Emissions (tons/year)

Maximum rate tons/hr
 Maximum rate tons/year

40
350,400.00

Emissions Generating Activity

Pollutant	Emissions from Kiln pounds per ton	Control Efficiency	TOTAL tons per year
PM	214.30	99.90%	37.55
PM10	79.70	99.90%	13.96
SO2	1.80	0.00%	315.36
NOx	0.89	0.00%	155.93
VOC	0.04	0.00%	7.01
CO	0.34	0.00%	59.57
total HAPs	0.00	0.00%	0.00
worst case single HAP	0.00	0.00%	0.00

Methodology:

PM, SO2, NOx, VOC, and CO factors from test data (before controls) submitted by the applicant

Total Emissions in tons/year = average emissions in lb/ton * maximum rate tons/year* 1 ton/2000lbs

Total emissions based on rated capacity at 8,760 hours/year, before control.

Ratio of PM:PM10 based on AP-42 Sec. 11.20 ratios. Other factors from AP-42.