



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: June 12, 2006
RE: General Shale Products, LLC / 109-16617-00002
FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of an initial Title V operating permit, permit renewal, or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impracticable to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.



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PART 70 OPERATING PERMIT RENEWAL OFFICE OF AIR QUALITY

**General Shale Products, LLC – Plants 20 and 32
Highway 67 South and CR 1000 North
 Mooresville, Indiana 46158**

(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.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. 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. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. **This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions.**

Operation Permit No.: T 109-16617-00002	
Original signed by Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: June 12, 2006 Expiration Date: June 12, 2011

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1, A.3, and A.4 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)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary brick and structural clay manufacturing source.

Responsible Official:	Director of Environment
Source Address:	Highway 67 South and CR 1000 North, Mooresville, Indiana 46158
Mailing Address:	P.O. Box 156, Mooresville, Indiana 46158
General Source Phone Number:	(317) 831-3317
SIC Code:	3251
County Location:	Morgan
Source Location Status:	Nonattainment for ozone under 8-hour standard and PM _{2.5} Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rules and Emission Offset; Major Source, Section 112 of the Clean Air Act

A.2 Part 70 Source Definition [326 IAC 2-7-1(22)]

This brick and structural clay products manufacturing company consists of two (2) plants:

- (a) Plant No. 20 is located at Highway 67 South and CR 1000 N, Mooresville; and
- (b) Plant No. 32 is located at Highway 67 South and CR 1000 N, Mooresville, Indiana

Since the two (2) plants are located on contiguous or adjacent properties, belong to the same industrial grouping, and under common control of the same entity, they will be considered one (1) source, effective from the date of issuance of this Part 70 permit

A.3 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) clay/shale processing operation, identified as EU-001, consisting of grinding and screening operations, installed in 1970 with one (1) grinder replaced in 1999, equipped with a baghouse for particulate control, installed in 1993, exhausting to Stack 001, capacity: 72.5 tons of clay/shale per hour.
- (b) Two (2) brick manufacturing lines, identified as EU-002, consisting of the following:
 - (1) One (1) brick manufacturing line, identified as Line 1, installed in 1970, modified in 1979, located at Plant No. 20, equipped with one (1) tunnel pre-dryer and one (1) tunnel dryer using waste heat from Line 1 Kiln, exhausting to Stack 20DE, as well as one (1) coal and natural gas-fired kiln, exhausting to Stack 20 KE, rated at 25 million British thermal units per hour, capacity: 14.8 tons of bricks per hour.
 - (2) One (1) brick manufacturing line, identified as Line 2, installed in 1987, located at

Plant No. 32, equipped with one (1) tunnel pre-dryer and one (1) tunnel dryer using waste heat from Line 2 Kiln, exhausting to Stack 32DE, as well as one (1) coal and natural gas-fired kiln, exhausting to Stack 32KE, rated at 25 million British thermal units per hour, capacity: 13.7 tons of bricks per hour.

A.4 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 does not currently have any insignificant activities, as defined in 326 IAC 2-7-1 (21) that have applicable requirements.

A.5 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 Definitions [326 IAC 2-7-1]

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

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

- (a) This permit, T 109-16617-00002, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

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

B.4 Enforceability [326 IAC 2-7-7]

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

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

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

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

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

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

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U.S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification 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, using the attached Certification Form, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

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

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

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

B.10 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 maintain and implement Preventive Maintenance Plans (PMPs) 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.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

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

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865
 - (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
 Compliance Branch, Office of Air Quality
 100 North Senate Avenue
 Indianapolis, Indiana 46204-2251

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

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

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

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). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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

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

defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

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

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
 - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

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

- (a) All terms and conditions of permits established prior to T 109-16617-00002 and issued pursuant to permitting programs approved into the state implementation plan have been either
 - (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.

- (b) Provided that all terms and conditions are accurately reflected in this combined permit, all previous registrations and permits are superseded by this combined new source review and Part 70 Operating Permit.

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

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

B.15 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 Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 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)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:

- (1) That this permit contains a material mistake.
- (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
- (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-3] [326 IAC 2-7-4] [326 IAC 2-7-8]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
- Any such application shall be certified by the “responsible official” as defined by 326 IAC 2-7-1(34).
- (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.19 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) 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.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (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 preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
 - (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
 - (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).
- (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). For each such Section 502(b)(10) of the Clean Air Act change, the required written

notification shall include the following:

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

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require 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 emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

- (a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.
- (b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2-2 and 326 IAC 2-3-2.

B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]

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

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

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:
- Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
- The application 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) 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.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

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

B.25 Credible Evidence [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [62 FR 8314] [326 IAC 1-1-6]

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

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

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

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

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 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. 326 IAC 9-1-2 is not federally enforceable.

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

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

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

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

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

- (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 Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. 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 applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable 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) **Demolition and renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **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 to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

C.8 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 any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

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 Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

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

C.10 Compliance Schedule [40 CFR Part 63, Subpart JJJJJ]

On February 2, 2006, IDEM, OAQ approved an extension of the final compliance date contained in 40 CFR Part 63, Subpart JJJJJ, for the two (2) existing tunnel kilns. The termination date of this extension is May 1, 2007, which is the final compliance date.

The Permittee shall submit a status report within fifteen (15) days of completion of the following milestones indicating the actual dates of completion:

- (a) The date on-site construction for the installation of the emissions control equipment is initiated.
- (b) The date on-site construction for the installation of the emission control equipment is completed.
- (c) The date by which final compliance is achieved.

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

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

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

The notification which shall be submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

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

C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

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

C.13 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 prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on February 25, 1999.
- (b) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

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

C.15 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records;
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
 - (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

C.16 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 response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (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, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require 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.17 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) Pursuant to 326 IAC 2-6-3(b)(2), starting in 2008 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain at minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
- (1) Indicate estimated actual emission of all pollutants listed in 326 IAC 2-6-4(a);
 - (2) Indicate estimated actual emissions of regulated pollutants (as defined by 326 IAC 2-7-1 (32) (“Regulated pollutant, which is used only for purposes of Section 19 of this rule”) from the source, for purpose of fee assessment.

The statement must be submitted to:

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

The emission statement does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(32).

- (b) The 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, OAQ, on or before the date it is due.

C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.
- (c) If there is a reasonable possibility that a “project” (as defined in 326 IAC 2-2-1 (qq) and 326 IAC 2-3-1(II)) at an existing emissions unit other than projects at a Clean Unit, which is not part of a “major modification” (as defined in 326 IAC 2-2-1 (ee) and 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1 (rr) and 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
- (1) Before beginning actual construction of the “project” (as defined in 326 IAC 2-2-1 (qq) and 326 IAC 2-3-1(II)) at an existing emissions unit, document and maintain the following records:
 - (A) A description of the project;

- (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project;
- (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;
 - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and 326 IAC 2-3-1(mm)(2)(A)(3); and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
- (3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).
- (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 Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).
- (e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

- (f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C- General Record Keeping Requirements for any “project” (as defined in 326 IAC 2-2-1 (qq) and 326 IAC 2-3-1(II)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
- (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and 326 IAC 2-3-1(qq), for that regulated NSR pollutant, and
 - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(ii).
- (g) The report for a project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:
- (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C- General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and 326 IAC 2-3-2(c)(3).
 - (4) Any other information that the Permittee deems fit to include in this report,

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

Stratospheric Ozone Protection

C.20 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)] Clay/Shale Processing

- (a) One (1) clay/shale processing operation, identified as EU-001, consisting of grinding and screening operations, installed in 1970 with one (1) grinder replaced in 1999, equipped with a baghouse for particulate control, installed in 1993, exhausting to Stack 001, capacity: 72.5 tons of clay/shale per hour.

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

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

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

Pursuant to Condition D.1.1 of T 109-7388-00002, issued on January 25, 1999 and 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from clay and shale processing (screening and grinding) operation shall not exceed 48.1 pounds per hour when operating at a process weight rate of 72.5 tons per hour.

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

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

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

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

D.1.2 Record Keeping Requirements [40 CFR 676(a)(1), Subpart OOO]

Pursuant to 40 CFR 60.676(a)(1), on July 19, 1999, the Permittee submitted to IDEM OAQ, the following information:

- (a) The rated capacity in megagrams or tons per hour of the grinder that was constructed in 1970, and
- (b) The rated capacity in tons per hour of the grinder constructed in 1999.

Compliance with paragraphs (a) and (b) of this condition renders the requirements of 40 CFR 60.672, 40 CFR 60.674, and 40 CFR 60.675, Subpart OOO not applicable.

SECTION D.2 FACILITY OPERATION CONDITIONS

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

- (b) Two (2) brick manufacturing lines, identified as EU-002, consisting of the following:
- (1) One (1) brick manufacturing line, identified as Line 1, installed in 1970, modified in 1979, located at Plant No. 20, equipped with one (1) tunnel pre-dryer and one (1) tunnel dryer using waste heat from Line 1 Kiln, exhausting to Stack 20DE, as well as one (1) coal and natural gas-fired kiln, exhausting to Stack 20 KE, rated at 25 million British thermal units per hour, capacity: 14.8 tons of bricks per hour.
 - (2) One (1) brick manufacturing line, identified as Line 2, installed in 1987, located at Plant No. 32, equipped with one (1) tunnel pre-dryer and one (1) tunnel dryer using waste heat from Line 2 Kiln, exhausting to Stack 32DE, as well as one (1) coal and natural gas-fired kiln, exhausting to Stack 32KE, rated at 25 million British thermal units per hour, capacity: 13.7 tons of bricks per hour.

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

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

D.2.1 PSD Minor Limits [326 IAC 2-2]

- (a) The production of bricks at the Line 1 tunnel kiln shall not exceed 129,648 tons per twelve (12) consecutive month period with compliance determined at the end of each month. SO₂ emissions shall not exceed 3.77 pounds of SO₂ per ton of bricks produced. The production and emission limits are required to limit the potential to emit SO₂ from the Line 1 tunnel kiln to less than 250 tons per year.
- (b) The production of bricks at the Line 2 tunnel kiln shall not exceed 120,012 tons per twelve (12) consecutive month period with compliance determined at the end of each month. SO₂ emissions shall not exceed 3.77 pounds of SO₂ per ton of bricks produced. The production and emission limits are required to limit the potential to emit SO₂ from the Line 2 tunnel kiln to less than 250 tons per year

Compliance with the limitations in paragraphs (a) and (b) renders the requirements of 326 IAC 2-2 not applicable.

D.2.2 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1]

Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations), the SO₂ emissions from each kiln (Line 1 and Line 2) shall not exceed six (6.0) pounds per million British thermal units heat input while combusting coal.

D.2.3 Particulate [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Line 1 Kiln shall not exceed 24.9 pounds per hour when operating at a process weight rate of 14.8 tons per hour.

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

Interpolation 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) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Line 2 Kiln shall not exceed 23.7 pounds per hour when operating at a process weight rate of 13.7 tons per hour.

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

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

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

D.2.4 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 these facilities.

Compliance Determination Requirements

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

- (a) Within 180 days after the issuance of this Part 70 permit, in order to demonstrate compliance with Condition D.2.1, the Permittee shall perform SO₂ testing for the Line 1 Kiln and Line 2 Kiln stacks utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.
- (b) Within 180 days after issuance of this Part 70 permit, in order to demonstrate compliance with Condition D.2.3, the Permittee shall perform PM testing for the Line 1 Kiln and Line 2 Kiln stacks utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

D.2.6 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 from each kiln (Line 1 and Line 2) does not exceed six (6.0) pounds per million British thermal units. Compliance shall be determined utilizing one of the following options:

- (a) Providing vendor analysis of coal delivered, if accompanied by a certification from the fuel supplier, as described under 40 CFR 60.48c(f)(3). The certification shall include:
- (1) The name of the coal supplier; and
 - (2) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the coal was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected); and
 - (3) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and

- (4) The methods used to determine the properties of the coal; or
- (b) Sampling and analyzing the coal by using one of the following procedures:
 - (1) Minimum Coal Sampling Requirements and Analysis Methods:
 - (A) The coal sample acquisition point shall be at a location where representative samples of the total coal flow to be combusted by the facility or facilities may be obtained. A single as-bunkered or as-burned sampling station may be used to represent the coal to be combusted by multiple facilities using the same stockpile feed system;
 - (B) Coal shall be sampled at least one (1) time per day;
 - (C) Minimum sample size shall be five hundred (500) grams;
 - (D) Samples shall be composited and analyzed at the end of each calendar quarter;
 - (E) Preparation of the coal sample, heat content analysis, and sulfur content analysis shall be determined pursuant to 326 IAC 3-7-2(c), (d), (e); or
 - (2) Sample and analyze the coal pursuant to 326 IAC 3-7-3; or
- (c) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the two (2) tunnel kilns, 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.

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

D.2.7 Visible Emissions Notations

- (a) Visible emission notations of the Line 1 Kiln (Stack 20KE) and Line 2 Kiln (Stack 32 KE) stack exhausts 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) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

D.2.8 Record Keeping Requirements

- (a) To document compliance with Condition D.2.1 the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the brick production limit as well as the SO₂ emission limits established in Condition D.2.1.
- (1) The total number of bricks produced at each kiln each month;
 - (2) Calendar dates covered in the compliance determination period;
 - (3) Sulfur content, heat content, and ash content of the coal; and
 - (4) Sulfur dioxide emission rates;
- (b) To document compliance with Condition D.2.6, the Permittee shall maintain records of visible emission notations of the Line 1 Kiln (Stack 20KE) and Line 2 Kiln (Stack 32 KE) stack exhausts once per day while combusting coal.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.9 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

D.2.10 General Provisions Relating to HAPs [326 IAC 20-1] [40 CFR 63, Subpart A]

- (a) The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the brick and structural clay products manufacturing affected source, as designated by 40 CFR 63.8385, except when otherwise specified in 40 CFR 63, Subpart JJJJJ. The Permittee must comply with these requirements on or after May 23, 2003.
- (b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by Section B - Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (a) of this condition.

D.2.11 National Emission Standards for Hazardous Air Pollutants for Bricks and Structural Clay Products Manufacturing [40 CFR 63, Subpart JJJJJ] [40 CFR 63.8385] [40 CFR 63.8390]

- (a) The affected source, tunnel kilns that manufacture the products described in 40 CFR 63.8385(a), brick (including but not limited to, face brick, structural brick, and brick pavers), clay pipe, roof tile, extruded floor and wall tile, and/or other extruded, dimensional clay products that are associated with the operations described in 40 CF 63.8390(b)(2), is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Brick and Structural Clay Products Manufacturing (40 CFR 63, Subpart JJJJJ), effective May 16, 2003.

The Permittee must comply with 40 CFR 63, Subpart JJJJJ on and after May 1, 2007, or accept and meet an enforceable HAP emissions limit below the major source threshold prior

to that date.

- (b) The following emission units comprise the affected source that is subject to 40 CFR 63, Subpart JJJJJ:

The following equipment from the two (2) brick manufacturing lines, identified as EU-002:

- (1) Line 1 tunnel kiln, exhausting to Stack 20KE, rated at 25 million British thermal units per hour located on a brick manufacturing line, constructed in 1970 and modified in 1979 capacity: 14.8 tons of brick per hour.
- (2) Line 2 tunnel kiln, exhausting to Stack 32KE, rated at 25 million British thermal units per hour located on a brick manufacturing line, constructed in 1987 capacity: 13.7 tons of brick per hour.

- (c) The definitions in 40 CFR 63.8480 are applicable to this source.

D.2.12 National Emission Standards for Hazardous Air Pollutants for Bricks and Structural Clay Products Manufacturing [40 CFR 63, Subpart JJJJJ]

- (a) Pursuant to 40 CFR 63.8480(a), the Permittee shall submit the notifications in 40 CFR 63.7(b) and (c), 40 CFR 63.8(f)(4), and 40 CFR 63.9(b) through (e), (g)(1), and (h) that apply to the affected source and chosen compliance method by the dates specified.
- (b) Pursuant to 40 CFR 63.8480(b), the Permittee submitted an initial notification containing the information specified in 40 CFR 63.9(b)(2) and (3), on August 6, 2003.
- (c) Pursuant to 40 CFR 62.8480(c), the Permittee shall submit a notification of compliance status required by 40 CFR 63.9(h), no later than 60 calendar days after a performance test is performed in accordance with Table 3 of 40 CFR 63, Subpart JJJJJ. The notification of compliance status report shall contain the information specified in 40 CFR 63.10(d)(2) and 40 CFR 63.8480(e)(2)(i) and (ii).
- (d) The notifications required by paragraphs (a) through (c) shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Director, Air and Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

D.2.13 Requirement to Submit a Significant Permit Modification Application [326 IAC 2-7-12] [326 IAC 2-7-5]

The Permittee shall submit an application for a significant permit modification to IDEM, OAQ to include the information regarding which compliance option or options will be chosen in the Part 70 Operating Permit.

- (a) The significant permit modification application shall be consistent with 326 IAC 2-7-12, including information sufficient for IDEM, OAQ to incorporate into the Part 70 Operating Permit the applicable requirements of 40 CFR 63, Subpart JJJJJ, a description of the affected source and activities subject to the standard, and description of how the Permittee will meet the applicable requirements of the standard.

- (b) The significant permit modification application shall be submitted no later than August 1, 2006.
- (c) The significant permit modification application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY**

**PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: General Shale Products, LLC - Plants 20 and 32
Source Address: Highway 67, South and CR 1000 North, Mooresville, Indiana 46158
Mailing Address: P.O. Box 156, Mooresville, Indiana 46518
Part 70 Permit No.: T 109-16617-00002

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: General Shale Products, LLC - Plants 20 and 32
Source Address: Highway 67, South and CR 1000 North, Mooreville, Indiana 46158
Mailing Address: P.O. Box 156, Mooreville, Indiana 46518
Part 70 Permit No.: T 109-16617-00002

This form consists of 2 pages

Page 1 of 2

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

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

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

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

Page 2 of 2

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

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

Part 70 Quarterly Report

Source Name: General Shale Products, LLC - Plants 20 and 32
Source Address: Highway 67, South and CR 1000 North, Mooreville, Indiana 46158
Mailing Address: P.O. Box 156, Mooreville, Indiana 46518
Part 70 Permit No.: T 109-16617-00002
Facility: Line 1 Kiln
Parameter: Brick Produced
Limit: Not to exceed 129,648 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR:

Month	Bricks Produced (tons)	Bricks Produced (tons)	Bricks Produced (tons)
	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: General Shale Products, LLC - Plants 20 and 32
Source Address: Highway 67, South and CR 1000 North, Mooreville, Indiana 46158
Mailing Address: P.O. Box 156, Mooreville, Indiana 46518
Part 70 Permit No.: T 109-16617-00002
Facility: Line 2 Kiln
Parameter: Brick Produced
Limit: Not to exceed 120,012 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR:

Month	Bricks Produced (tons)	Bricks Produced (tons)	Bricks Produced (tons)
	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

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

Source Name: General Shale Products, LLC - Plants 20 and 32
 Source Address: Highway 67, South and CR 1000 North
 Mailing Address: P.O. Box 156, Mooresville, Indiana 46518
 Part 70 Permit No.: T 109-16617-00002

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

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

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

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

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

Source Background and Description

Source Name:	General Shale Products, LLC - Plants 20 and 32
Source Location:	Highway 67 South and CR 1000 North, Mooresville, IN 46158
County:	Morgan
SIC Code:	3251
Operation Permit No.:	T 109-7388-00002
Operation Permit Issuance Date:	January 25, 1999
Permit Renewal No.:	T 109-16617-00002
Permit Reviewer:	Michael S. Schaffer

The Office of Air Quality (OAQ) has reviewed a Part 70 Operating Permit Renewal application from General Shale Products, LLC - Plants 20 and 32 relating to the operation of a stationary brick and structural clay products manufacturing source.

Source Definition

This Source Definition from the previous Part 70 Operating Permit was incorporated into this permit as follows:

This stationary structural brick manufacturing company consists of two (2) plants:

- (a) Plant No. 20 is located at Highway 67 South and CR 1000 N, Mooresville, Indiana; and
- (b) Plant No. 32 is located at Highway 67, South and CR 1000 N, Mooresville, Indiana.

Since the two (2) plants are located in contiguous properties, have the same SIC codes and are owned by one (1) company, they will be considered one (1) source.

Permitted Emission Units and Pollution Control Equipment

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

- (a) One (1) clay/shale processing operation, identified as EU-001, consisting of grinding and screening operations, installed in 1970 with one (1) grinder replaced in 1999, equipped with a baghouse for particulate control, installed in 1993, exhausting to Stack 001, capacity: 72.5 tons of clay/shale per hour.
- (b) Two (2) brick manufacturing lines, identified as EU-002, consisting of the following:
 - (1) One (1) brick manufacturing line, identified as Line 1, installed in 1970, modified in 1979, located at Plant No. 20, equipped with one (1) tunnel pre-dryer and one (1) tunnel dryer using waste heat from Line 1 Kiln, exhausting to Stack 20DE, as well as one (1) coal and natural gas-fired kiln, exhausting to Stack 20 KE, rated at 25 million British thermal units per hour, capacity: 14.8 tons of bricks per hour.
 - (2) One (1) brick manufacturing line, identified as Line 2, installed in 1987, located at Plant No. 32, equipped with one (1) tunnel pre-dryer and one (1) tunnel dryer using waste heat from Line 2 Kiln, exhausting to Stack 32DE, as well as one (1) coal and natural gas-fired kiln, exhausting to Stack 32KE, rated at 25 million British thermal units per hour, capacity: 13.7 tons of bricks per hour.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted emission units operating at this source during this review process.

Insignificant Activities

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

- (a) Two (2) process water heaters, maximum heat input capacity: 2.50 million British thermal units per hour, total.
- (b) Two (2) kiln car vacuum cleaning systems.
- (c) One (1) gasoline dispensing operation, constructed in 1991, maximum throughput capacity: Less than 10,000 gallons per month.
- (d) Refractory storage not requiring air pollution control equipment:
 - (1) Raw material (shale) storage,
 - (2) Plant No. 20 ground material storage,
 - (3) Plant No. 32 ground material storage, and
 - (4) Two (2) sand storage silos.
- (e) Seven (7) stick welding stations, using E7018 electrodes, maximum capacity: 1 pound of electrode per hour per station.
- (f) Nine (9) flame cutting stations, using oxyacetylene, maximum capacity: 1 inch cutting thickness at 8 inches per minute.
- (g) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (h) Other categories with emissions below the insignificant thresholds:
 - (1) One (1) coal processing system, consisting of one (1) crushing and one (1) unloading operation, equipped with a baghouse for particulate control, capacity: 30 tons of coal per day;
 - (2) One (1) coal storage hopper, consisting of a vent filter;
 - (3) Raw material (shale) handling;
 - (4) Ground material belt conveyors;
 - (5) Coal stockpile;
 - (6) Crushing of waste broken brick (with portable plants);
 - (7) Paved Roads; and
 - (8) Farm Operation.

Existing Approvals

The source has been operating under the following previous approvals:

- (a) T 109-7388-00002, issued on January 25, 1999;
- (b) First Administrative Amendment AAT 109-10806-00002, issued on April 10, 1999;
- (c) Second Administrative Amendment AAT 109-11162-00002, issued on August, 27, 1999;
and
- (d) First Reopening R 109-13432-00002, issued on January 7, 2003.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous permits are superseded by this permit.

- (a) The following terms and conditions from previous approvals have been revised in this Part 70 Operating Permit Renewal:
 - (1) IDEM has determined that the Permittee is not required to keep records of all preventive maintenance. However, where the Permittee seeks to demonstrate that an emergency has occurred, the Permittee must provide, upon request, records of preventive maintenance in order to establish that the lack of proper maintenance did not cause or contribute to the deviation. Therefore, IDEM has deleted paragraph (b) of Condition B.12 (Preventive Maintenance Plan) and has amended Condition B.13 (Emergency Provisions).
 - (2) Indiana was required to incorporate credible evidence provisions into state rules consistent with the SIP call published by U.S. EPA in 1997 (62 FR 8314). Indiana has incorporated the credible evidence provision in 326 IAC 1-1-6. This rule is effective March 16, 2005; therefore, a new condition, entitled, Credible Evidence, reflecting this rule will be incorporated into Section B of the permit.
 - (3) IDEM has reconsidered the requirement to develop and follow a Compliance Response Plan. The Permittee will still be required to take reasonable response steps when a compliance monitoring parameter is determined to be out of range or abnormal. Replacing the requirement to develop and follow a Compliance Response Plan (Condition C.15) with a requirement to take reasonable response steps will ensure that the control equipment is returned to proper operation as soon as practicable, while still allowing the Permittee the flexibility to respond to situations that were not anticipated.
 - (4) All references to the condition entitled, Compliance Response Plan - Preparation, Implementation, Records, and Reports, have been revised to reflect the new condition title, Response to Excursions or Exceedances.
 - (5) IDEM has determined that once per day monitoring of visible emission notations is generally sufficient to ensure proper operation of the Line 1 Kiln (Stack 20KE) and Line 2 Kiln (Stack 32 KE) stack exhausts. IDEM has also determined that monitoring this parameter once per day is sufficient to satisfy the requirements of the Part 70 rules at 326 IAC 2-7-5 and 326 IAC 2-7-6.
 - (6) PSD minor limit in Condition D.2.1 of T 109-7388-00002, issued on January 25, 1999:

Pursuant to PC 55-1634, issued on April 20, 1986, the sulfur dioxide emission from each of the two (2) kilns shall not exceed 249 tons per twelve (12) consecutive month period. Compliance with these limits make 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

Each tunnel kiln shall not exceed 3.77 pounds of SO₂ per ton of bricks produced and shall produce no more than 132,095 tons of brick per any twelve (12) consecutive month period.

The brick production limits in Condition D.2.1(b) of T 109-7388-00002 are greater than the capacities of the Line 1 and Line 2 kilns. Therefore, the production limits will be revised to reflect the capacities of each kiln as follows:

- (A) The production of bricks at the Line 1 tunnel kiln shall not exceed 129,648 tons per twelve (12) consecutive month period with compliance determined at the end of each month. SO₂ emissions shall not exceed 3.77 pounds of SO₂ per ton of bricks produced.
- (B) The production of bricks at the Line 2 tunnel kiln shall not exceed 120,012 tons per twelve (12) consecutive month period with compliance determined at the end of each month. SO₂ emissions shall not exceed 3.77 pounds of SO₂ per ton of bricks produced.

Compliance with the limits in paragraphs (1) and (2) will limit SO₂ emissions from each kiln to less than 250 tons per year and is necessary to render the requirements of 326 IAC 2-2 not applicable.

- (b) The following terms and conditions from previous approvals have been determined no longer applicable; therefore, were not incorporated into this Part 70 Operating Permit:
 - (1) Since the requirements of Condition C.6 (Operation of Equipment) would be incorporated in the D Sections if they applied to this source, Condition C.6 has been removed from the permit.
 - (2) Condition D.3.1 of T 109-7388-00002, issued on January 25, 1999:

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from these facilities shall not exceed the allowable PM emission rate based on the following equation:

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

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

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:

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

Reason not incorporated: On June 12, 2002, revisions to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) became effective; this

rule was previously referred to as 326 IAC 6-3 (Process Operations). The equipment in the description box of Section D.3 is no longer subject to the requirements of 326 IAC 6-3 due to following:

- (A) Pursuant to 326 IAC 6-3-1(b)(9), insignificant welding that consumes less than a total of 625 pounds of rod per day is exempt from the requirements of 326 IAC 6-3.
- (B) Pursuant to 326 IAC 6-3-1(b)(10), insignificant torch cutting that consumes less than 3,400 inches of one inch stock per hour is exempt from the requirements of 326 IAC 6-3.
- (C) Pursuant to 326 IAC 6-3-1(b)(14), manufacturing processes with potential PM emissions that are less than 0.551 pounds per hour are exempt from the requirements of 326 IAC 6-3. The insignificant raw material (shale) storage, ground material storage, sand storage silos, coal processing system, coal storage hopper, raw material (shale) handling, ground material belt conveyors, coal stockpile, and crushing of waste broken brick, each have potential emissions less than 0.551 pounds per hour.

Therefore, the requirements of Condition D.3.1 of T 109-7388-00002 will not be included in this renewal

Enforcement Issue

There are no enforcement actions pending.

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 application for the purposes of this review was received on September 22, 2002, with additional information received on August 18, 2003, August 10, 2004, and March 8, 2006.

Emission Calculations

See Pages 1 through 5 of 5 Appendix A of this document for detailed emission calculations.

Insignificant Coal Processing Operation

The potential to emit of the insignificant coal processing system is as follows:

PM and PM₁₀ emissions from unloading of raw coal (tons/yr) = 10,950 (tons of coal/yr) x 0.02 (lbs of PM and PM₁₀ / ton of coal) x a schedule of (8,760 hours / yr) x (1 yr / 8,760 hours) = 0.110 tons of PM and PM₁₀ per year each (Based on PM emission factor from SCC #3-050-010-08 AIRS)

PM and PM₁₀ emissions from crushing of raw coal (tons/yr) = 10,950 (tons of coal/yr) x 0.02 (lbs of PM and PM₁₀ / ton of coal) x a schedule of (8,760 hours / yr) x (1 yr / 8,760 hours) = 0.110 tons of PM and PM₁₀ per year each x (1 - .90 control efficiency) = 0.099

tons of PM and PM₁₀ per year each (Based on PM emission factor from SCC #3-050-010-10 AIRS)

Potential to Emit of the Source

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

The source was issued a Part 70 Operating Permit on January 25, 1999. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of the original Part 70 operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/emission unit	Potential To Emit (tons/year)						
	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Processing Shale/Clay (EU 001)	7.94	0.730	-	-	-	-	-
Line 1 Kiln (Plant 20)	116	87.5	244	1.56	51.9	33.1	Single 10.7 Total 10.8
Line 2 Kiln (Plant 32)	107	81.0	226	1.44	48.0	30.6	Single 9.90 Total 9.99
Insignificant Welding and Flame Cutting	3.72	3.72	-	-	-	-	Single 0.037 Total 0.045
Insignificant Natural Gas-Fired Water Heaters	0.021	0.083	0.007	0.060	0.920	1.10	Single 0.020 Total 0.021
Insignificant Coal Processing System	0.209	0.209	-	-	-	-	-
Total Emissions	235	173	470	3.06	101	68.5	Single 21.6 Total 21.9

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of SO₂, PM₁₀, and CO are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7. Therefore, the source is subject to the provisions of 326 IAC 2-7.

- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (c) **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.
- (d) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant is emitted at a rate of two hundred and fifty (250) tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2002 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM _{2.5}	46.0
PM ₁₀	76.0
SO ₂	367
VOC	2.00
CO	78.0
NO _x	50.0
Lead	0.01

County Attainment Status

The source is located in Morgan County.

Pollutant	Status
PM _{2.5}	Basic Nonattainment
PM ₁₀	Attainment
SO ₂	Attainment
NO ₂	Attainment
1-Hour Ozone	Attainment
8-Hour Ozone	Basic Nonattainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and nitrogen oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Morgan County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements of 326 IAC 2-3, Emission Offset. See the State Rule Applicability - Entire Source section of this document.
- (b) U.S.EPA in Federal Register Notice 70 FR 943 dated January 5, 2005 has designated Morgan County as nonattainment for PM_{2.5}. On March 7, 2005 the Indiana Attorney General's Office on behalf of IDEM filed a lawsuit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions pursuant to the Nonattainment New Source Review requirements. See the State Rule Applicability - Entire Source section of this document.
- (c) Morgan County has been classified as attainment or unclassifiable in Indiana for SO₂, NO₂, CO, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability - Entire Source section of this document.
- (d) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 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.

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) This Part 70 Operating Permit Renewal does not involve a pollutant-specific emissions unit as defined in 40 CFR 64.1 for SO₂, CO, and PM₁₀:
 - (1) with the potential to emit before controls equal to or greater than the major source threshold for SO₂, CO, and PM₁₀;
 - (2) that is subject to an emission limitation or standard for SO₂, CO, and PM₁₀; and
 - (3) uses a control device as defined in 40 CFR 64.1 to comply with that emission limitation or standard.

Therefore, the requirements of 40 CFR 64, Compliance Assurance Monitoring, are not applicable to this Part 70 Operating Permit Renewal.

- (b) The insignificant coal processing system is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.250 - 40 CFR 60.254, Subpart Y) because the insignificant coal processing system processes less than 181 megagrams (200 tons) of coal per day.
- (c) The screening and grinding process operations, identified as EU 001 are subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.670, Subpart OOO), because the emission unit, constructed in 1970 (which predates the applicability date of August 31, 1983), contains a grinder that was replaced in 1999 at a clay/shale plant which processes greater than 9 megagrams (10 tons) per hour.

Note that pursuant to 40 CFR 60.670(e), any emission unit that contains a grinding mill (which is defined by 40 CFR 60.671 as a machine used for the wet or dry fine crushing of non-metallic mineral) at an emission unit modified after August 31, 1983 is subject to requirements of 40 CFR 60, Subpart OOO.

Pursuant to 40 CFR 60.670(d)(1), if an existing facility is replaced by a piece of equipment of equal or smaller size, has the same function as the existing facility, and is not the replacement of all facilities on a production line, the new facility is exempt from the requirements of 40 CFR 60.672, 40 CFR 60.674, and 40 CFR 60.675. Therefore, pursuant to 40 CFR 60.670(d)(2), the Permittee will be required in this renewal to submit the following information required in 40 CFR 60.676(a):

Pursuant to 40 CFR 60.676(a)(1), the Permittee was required submit to IDEM OAQ, the following information about the grinder constructed in 1970 and the replacement of that grinder in 1999:

- (1) The rated capacity in megagrams or tons per hour of the grinder that was constructed in 1970, and
- (2) The rated capacity in tons per hour of the grinder constructed in 1999.

The source submitted the above information to IDEM, OAQ on July 19, 1999 in the application for AAT 109-11162-00002, issued on August 27, 1999. IDEM, OAQ has verified that the source has complied with the requirements of 40 CFR 60.676(a)(1), which makes the replacement grinder exempt from the requirements of 40 CFR 60.672, 40 CFR 60.674, and 40 CFR 60.675, Subpart OOO.

- (d) This screening and grinding operations (EU-001) are not subject to the requirements of the New Source Performance Standard (NSPS), 326 IAC 12, (40 CFR 60.731 - 60.737, Subpart UUU Standards of Performance for Calciners and Dryers in Mineral Industries) because EU-001 is not equipped with a dryer or calciner. Pursuant to 40 CFR 60.730(a), NSPS Subpart UUU only applies to the calcining and drying of raw materials prior to firing of bricks.
- (e) Lines 1 and 2 (EU-002) are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.730 - 60.737, Subpart UUU Standards of Performance for Calciners and Dryers in Mineral Industries) because EU-001 is only equipped with tunnel dryers and tunnel kilns. Pursuant to 40 CFR 60.730(b), tunnel dryers and tunnel kilns are exempt from the requirements of NSPS Subpart UUU.

(f) The two (2) tunnel kilns are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Brick and Structural Clay Products Manufacturing, 40 CFR 63, Subpart JJJJJ, promulgated on May 16, 2003.

- (1) The provisions of 40 CFR 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the affected source described in this section except when otherwise specified in 40 CFR 63, Subpart JJJJJ.
- (2) On February 2, 2006, IDEM, OAQ approved an extension of the final compliance date contained in 40 CFR Part 63, Subpart JJJJJ, for the two (2) existing tunnel kilns. The termination date of this extension is May 1, 2007, which is the final compliance date.

General Shale Products, LLC shall submit a status report within fifteen (15) days of completion of the following milestones indicating the actual dates of completion:

- (A) The date on-site construction for the installation of the emissions control equipment is initiated.
- (B) The date on-site construction for the installation of the emission control equipment is completed.
- (C) The date by which final compliance is achieved.

This rule has a future compliance date for this source; therefore, the specific details of the rule and how the Permittee will demonstrate compliance are not provided in the permit.

The Permittee shall submit an application for a significant permit modification no later than August 1, 2006 that will specify the option or options for the emission limitations and standards and methods for determining compliance chosen by the Permittee. At that time, IDEM, OAQ will include the specific details of the rule and how the Permittee will demonstrate compliance. In addition, pursuant to 40 CFR 63, Subpart JJJJJ, the Permittee shall submit:

- (1) The notifications in 40 CFR 63.7(b) and (c), 40 CFR 63.8(f)(4), and 40 CFR 63.9(b) through (e), (g)(1), and (h) that apply to the affected source and chosen compliance method by the dates specified.
- (2) Initial notification containing the information specified in 40 CFR 63.9(b)(2) and (3), no later than September 13, 2003. The source submitted their initial notification to IDEM, OAQ on August 6, 2003.
- (3) A notification of compliance status required by 40 CFR 63.9(h), no later than 60 calendar days after a performance test is performed in accordance with Table 3 of 40 CFR 63, Subpart JJJJJ. The notification of compliance status shall contain the information specified in 40 CFR 63.10(d)(2) and 40 CFR 63.8480(e)(2)(i) and (ii).

State Rule Applicability – Entire Source

326 IAC 1-5-2 (Emergency Reduction Plans)

The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on February 25, 1999.

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

- (a) The screening and grinding processing, identified as EU-001, was constructed prior to August 7, 1977. Therefore, a PSD permit pursuant to 326 IAC 2-2 was not required for this emission unit.
- (b) The potential to emit from Line 1, constructed in 1970, modified in 1979 was less than 250 tons of SO₂ per year and thus, the source was not required to have PSD permit at the time.
- (c) PC 55-1634, issued on April 20, 1986 was for the addition of Line 2 and required that both the Line 1 and Line 2 Kilns be limited to less than 249 tons of SO₂ per year each. As a result, the source became a major source under PSD rules that was not required to undergo PSD review.
- (d) The addition of the baghouse to the screening and grinding process (EU-001) in 1993 did not require a PSD modification since the emissions from the screening and grinding process (EU-001) after controls caused a net decrease in PM and PM₁₀ emissions.
- (e) The replacement of the one (1) grinder in 1999 did not require a PSD modification since the new grinder was the same capacity as the pre-existing grinder, and the potential to emit of PM and PM₁₀ after controls from EU-001 was 0.079 and 0.007 tons per year, respectively.
- (f) In order to render the requirements of 326 IAC 2-2, PSD not applicable, the source has elected to revise the limitations from Condition D.2.1 of T 109-7368-00002, issued on January 25, 1999, and PC 55-1634, issued on April 20, 1986 as follows:
 - (1) The production of bricks at the Line 1 tunnel kiln shall not exceed 129,648 tons per twelve (12) consecutive month period with compliance determined at the end of each month. SO₂ emissions shall not exceed 3.77 pounds of SO₂ per ton of bricks produced.
 - (2) The production of bricks at the Line 2 tunnel kiln shall not exceed 120,012 tons per twelve (12) consecutive month period with compliance determined at the end of each month. SO₂ emissions shall not exceed 3.77 pounds of SO₂ per ton of bricks produced.

Compliance with these limitations will insure that the SO₂ emissions from each kiln do not exceed 250 tons per year and renders the requirements of 326 IAC 2-2 not applicable.

Note: The limited production throughput for each line tunnel kiln is determined by the maximum production capacities of the Line 1 and Line 2 tunnel kilns. The maximum production capacity of the Line 1 tunnel kiln is 14.8 tons of brick per hour and the maximum production capacity of the Line 2 tunnel kiln is 13.7 tons of brick per hour.

326 IAC 2-4.1-1 (New Source Toxics Control)

The screening and grinding operations (EU-001) as well as Lines 1 and 2 at this source were constructed prior to July 27, 1997. The one (1) grinder at EU-001, constructed in 1999, does not contain any HAPs emissions. Therefore, the requirements of 326 IAC 2-4.1-1 are not applicable.

326 IAC 2-6 (Emission Reporting)

Since this source is required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, this source is subject to 326 IAC 2-6 (Emission Reporting). In accordance with the compliance schedule in 326 IAC 2-6-3, an emission statement must be submitted triennially by July 1, beginning in 2005 and every 3 years after. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity)

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

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

326 IAC 6-4 (Fugitive Dust Emissions)

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 6-5 (Fugitive Particulate Matter Emissions)

The potential fugitive particulate matter emissions from the entire source are less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 6-5 are not applicable.

State Rule Applicability – Individual Facilities

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

- (a) Pursuant to Condition D.1.1 of T 109-7388-00002, issued on January 25, 1999 and 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from clay and shale processing (screening and grinding) operation shall not exceed 48.1 pounds per hour when operating at a process weight rate of 72.5 tons per hour.

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

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

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

Note: The baghouse will not be required to be in operation at all times to comply with this limitation since the unrestricted potential to emit of this emission unit is substantially less than the allowable pounds per hour emission limitation. Based on the pound per ton emission factors in AP-42 Table 11.3-1, the unrestricted PM emission rate from the grinding and screening operations has been calculated to be 1.81 pounds per hour. See

Appendix A of this document for further details regarding the grinding and screening emissions calculations.

- (b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Line 1 Kiln shall not exceed 24.9 pounds per hour when operating at a process weight rate of 14.8 tons per hour.

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Line 2 Kiln shall not exceed 23.7 pounds per hour when operating at a process weight rate of 13.7 tons per hour.

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

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

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

Based on the emission factors in AP-42 Table 11.3-1, the Line 1 and Line 2 kiln is not compliance with the emission limitations in paragraph (b). Therefore, the source will be required to conduct a PM test to demonstrate compliance. See the Testing Requirements section of this document for further details.

- (c) Pursuant to 326 IAC 6-3-1(b)(9), the insignificant welding is not subject to the requirements of 326 IAC 6-3-2 because the insignificant welding consumes less than a total of 625 pounds of rod per day.
- (d) Pursuant to 326 IAC 6-3-1(b)(10), the insignificant torch cutting is not subject the requirements of 326 IAC 6-3-2 because the insignificant torch cutting consumes less than 3,400 inches of one inch stock per hour.
- (e) Pursuant to 326 IAC 6-3-1(b)(14), the insignificant raw material (shale) storage, ground material storage, sand storage silos, coal processing system, coal storage hopper, raw material (shale) handling, ground material belt conveyors, coal stockpile, and crushing of waste broke brick are not subject to requirements of 326 IAC 6-3-2 because each process has potential to emit less than 0.551 pounds per hour.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

Pursuant to 326 IAC 7-1.1, sulfur dioxide (SO₂) emissions from each kiln (Line 1 and Line 2) shall be limited to 6.0 pounds per million British thermal units heat input.

The SO₂ emission rate is 55.8 pounds per hour for the 25.0 million British thermal units per hour Line 1 Kiln. This is equivalent to 2.23 pounds of SO₂ per million British thermal units. Thus the Line 1 kiln complies with this rule.

The SO₂ emission rate is 51.6 pounds per hour for the 25.0 million British thermal units per hour Line 2 kiln. This is equivalent to 2.06 pounds of SO₂ per million British thermal units. Thus, the Line 2 kiln complies with this rule.

Testing Requirements

As part of this renewal, this source will be required to perform the following stack testing in order to demonstrate compliance with the 326 IAC 2-2 SO₂ emission rate limit and the 326 IAC 6-3-2 PM emission rate limit:

- (a) Within 180 days after issuance of this Part 70 permit, in order to demonstrate compliance with 326 IAC 2-2, the Permittee shall perform SO₂ testing for the Line 1 Kiln and Line 2 Kiln stacks utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.
- (b) Within 180 days after issuance of this Part 70 permit, in order to demonstrate compliance with 326 IAC 6-3-2, the Permittee shall perform PM testing for the Line 1 Kiln and Line 2 Kiln stacks utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

Compliance Requirements

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

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

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

The Line 1 Kiln and Line 2 Kiln have applicable compliance monitoring conditions as specified below:

Visible emissions notations of the Line 1 Kiln (Stack 20KE) and Line 2 Kiln (Stack 32 KE) stack exhausts shall be performed once per day during normal daylight operations. A trained employee will 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 start up 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. If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section

C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

The visible emission notations are being required to ensure compliance with 326 IAC 6-3 ((Particulate Emission Limitations for Manufacturing Processes) and 326 IAC 2-7 (Part 70).

Conclusion

The operation of this stationary brick and structural clay products manufacturing source shall be subject to the conditions of this Part 70 permit T 109-16617-00002.

Appendix A: Potential Emission Calculations

Company Name: General Shale Products, LLC - Plants 20 and 32
Address City IN Zip: Highway 67, South and CR 1000 North, Mooresville, Indiana 46158
Permit Number: T 109-16617
Plt ID: 109-00002
Reviewer: Michael S. Schaffer
Application Date: September 27 2002

Emission Unit EU 001 Baghouse Control Eff = 99.0%
 Processing Shale/Clay

Pollutant	Maximum Rate (tons/hr)	Emission Factor (lbs/ton)	Potential to Emit Before Controls (lbs/hr)	Potential to Emit Before Controls (tons/yr)	Control Efficiency (%)	Potential to Emit After Controls (lbs/hr)	Potential to Emit After Controls (tons/yr)
PM	72.5	0.025	1.81	7.94	99.0%	0.018	0.079
PM-10	72.5	0.0023	0.167	0.730	99.0%	0.002	0.007

PM and PM-10 are from AP-42 Table 11.3-1 for Grinding and Screening Operations (SCC 3-05-003-02)

Emission Unit EU 002
 Unit

Pollutant	Maximum Rate (tons/hr)	Emission Factor (lbs/ton)	Potential to Emit Before Controls (lbs/hr)	Potential to Emit Before Controls (tons/yr)	Control Efficiency (%)	Potential to Emit After Controls (lbs/hr)	Potential to Emit After Controls (tons/yr)
Line 1							
PM	14.8	1.79	26.5	116	0.00%	26.5	116
PM-10	14.8	1.35	20.0	87.5	0.00%	20.0	87.5
SO2	14.8	3.77	55.8	244	0.00%	55.8	244
NOx	14.8	0.510	7.55	33.1	0.00%	7.55	33.1
VOC	14.8	0.024	0.355	1.56	0.00%	0.355	1.56
CO	14.8	0.800	11.8	51.9	0.00%	11.8	51.9
HF	14.8	0.165	2.44	10.7	0.00%	2.44	10.7
Line 2							
PM	13.7	1.79	24.5	107.4	0.00%	24.5	107
PM-10	13.7	1.35	18.5	81.0	0.00%	18.5	81.0
SO2	13.7	3.77	51.6	226	0.00%	51.6	226
NOx	13.7	0.510	6.99	30.6	0.00%	6.99	30.6
VOC	13.7	0.024	0.329	1.44	0.00%	0.329	1.44
CO	13.7	0.800	11.0	48.0	0.00%	11.0	48.0
HF	13.7	0.165	2.26	9.90	0.00%	2.26	9.90

Methodology

PM, PM10, VOC, CO and NOx Emission Factors are from AP-42 Tables 11.3-1, 11.3-2, 11.3-3, 11.3-5 for a coal-fired kiln (SCC 3-05-003-13)

PM and PM-10 Emission Factors include Filterable PM and PM-10 as well as Condensable Organic and Inorganic PM

HF emission factors are from stack tests of comparable GSPC kiln with comparable raw material (Plant 14, KY, 1/95)

SO2 Emission Factors are from stacks tests of Plant 20 kiln

Pollutant	Limited Rate (tons/yr)	Emission Factor (lbs/ton)	Limited Potential to Emit Before Controls (lbs/yr)	Limited Potential to Emit Before Controls (tons/yr)	Control Efficiency (%)	Limited Potential to Emit After Controls (lbs/yr)	Limited Potential to Emit After Controls (tons/yr)
Line 1							
PM	129648	1.79	232070	116	0.00%	232070	116
PM-10	129648	1.35	175025	87.5	0.00%	175025	87.5
SO2	129648	3.77	488773	244	0.00%	488773	244
NOx	129648	0.510	66120	33.1	0.00%	66120	33.1
VOC	129648	0.024	3112	1.56	0.00%	3112	1.56
CO	129648	0.800	103718	51.9	0.00%	103718	51.9
HF	129648	0.165	21392	10.7	0.00%	21392	10.7
Line 2							
PM	120012	1.79	214821	107	0.00%	214821	107
PM-10	120012	1.35	162016	81.0	0.00%	162016	81.0
SO2	120012	3.77	452445	226	0.00%	452445	226
NOx	120012	0.510	61206	30.6	0.00%	61206	30.6
VOC	120012	0.024	2880	1.44	0.00%	2880	1.44
CO	120012	0.800	96010	48.0	0.00%	96010	48.0
HF	120012	0.165	19802	9.90	0.00%	19802	9.90

Appendix A: Potential Emission Calculations

Company Name: General Shale Products, LLC - Plants 20 and 32
Address City IN Zip: Highway 67, South and CR 1000 North, Mooresville, Indiana 46158
Permit Number: T 109-16617
Plt ID: 109-00002
Reviewer: Michael S. Schaffer
Application Date: September 27 2002

Emission Unit EU 002 Metal HAPs Emissions

Pollutant	Maximum Rate (tons/hr)	Emission Factor (lbs/ton)	Potential to Emit Before Controls (lbs/hr)	Potential to Emit Before Controls (tons/yr)	Control Efficiency (%)	Potential to Emit After Controls (lbs/hr)	Potential to Emit After Controls (tons/yr)
Line 1							
Arsenic	14.8	1.30E-04	0.002	0.008	0.00%	0.002	0.008
Beryllium	14.8	1.60E-05	0.0002	0.001	0.00%	0.0002	0.001
Manganese	14.8	2.90E-04	0.004	0.019	0.00%	0.004	0.019
Mercury	14.8	9.60E-05	0.001	0.006	0.00%	0.001	0.006
Phosphorus	14.8	9.80E-04	0.015	0.064	0.00%	0.015	0.064
Line 2							
Arsenic	13.7	1.30E-04	0.002	0.008	0.00%	0.002	0.008
Beryllium	13.7	1.60E-05	0.0002	0.001	0.00%	0.0002	0.001
Manganese	13.7	2.90E-04	0.004	0.017	0.00%	0.004	0.017
Mercury	13.7	9.60E-05	0.001	0.006	0.00%	0.001	0.006
Phosphorus	13.7	9.80E-04	0.013	0.059	0.00%	0.013	0.059

Methodology

Metal HAPs Emission Factors are from AP-42 Tables 11.3-7 for a coal-fired kiln (SCC 3-05-003-13)

Same Methodology as Page 1 to Calculate Emissions

Pollutant	Limited Rate (tons/yr)	Emission Factor (lbs/ton)	Limited Potential to Emit Before Controls (lbs/yr)	Limited Potential to Emit Before Controls (tons/yr)	Control Efficiency (%)	Limited Potential to Emit After Controls (lbs/yr)	Limited Potential to Emit After Controls (tons/yr)
Line 1							
Arsenic	129648	1.30E-04	16.9	0.008	0.00%	16.9	0.008
Beryllium	129648	1.60E-05	2.07	0.001	0.00%	2.07	0.001
Manganese	129648	2.90E-04	37.6	0.019	0.00%	37.6	0.019
Mercury	129648	9.60E-05	12.4	0.006	0.00%	12.4	0.006
Phosphorus	129648	9.80E-04	127	0.064	0.00%	127	0.064
Line 2							
Arsenic	120012	1.30E-04	15.6	0.008	0.00%	15.6	0.008
Beryllium	120012	1.60E-05	1.92	0.001	0.00%	1.92	0.001
Manganese	120012	2.90E-04	34.8	0.017	0.00%	34.8	0.017
Mercury	120012	9.60E-05	11.5	0.006	0.00%	11.5	0.006
Phosphorus	120012	9.80E-04	118	0.059	0.00%	118	0.059

**Appendix A: Emissions Calculations
Welding and Thermal Cutting**

Company Name: General Shale Products, LLC - Plants 20 and 32
Address City IN Zip: Highway 67, South and CR 1000 North, Mooresville, Indiana 46158
Permit Number: T 109-16617
Pit ID: 109-00002
Reviewer: Michael S. Schaffer
Application Date: September 27 2002

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
WELDING												
Stick (E7018 electrode)	7	1		0.0211	0.0009			0.148	0.006	0.000	0.000	0.006
FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Oxyacetylene	9	1	8	0.1622	0.0005	0.0001	0.0003	0.701	0.002	0.0004	0.001	0.004
EMISSION TOTALS												
Potential Emissions lbs/hr								0.85	0.008	0.0004	0.001	0.010
Potential Emissions lbs/day								20.36	0.20	0.010	0.031	0.245
Potential Emissions tons/year								3.72	0.037	0.002	0.006	0.045

METHODOLOGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in./m) x (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" t

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lb

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100**

Company Name: General Shale Products, LLC - Plants 20 and 32
Address City IN Zip: Highway 67, South and CR 1000 North, Mooresville, Indiana 46158
Permit Number: T 109-16617
Pit ID: 109-00002
Reviewer: Michael S. Schaffer
Application Date: September 27 2002

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

Two (2) water heaters rated at 2.50 MMBtu/hr total

2.50

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Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.90	7.60	0.600	100	5.50	84.0
				**see below		
Potential Emission in tons/yr	0.021	0.083	0.007	1.10	0.060	0.920

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 5 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 HAPs Emissions**

Company Name: General Shale Products, LLC - Plants 20 and 32
Address City IN Zip: Highway 67, South and CR 1000 North, Mooresville, Indiana 46158
Permit Number: T 109-16617
Pit ID: 109-00002
Reviewer: Michael S. Schaffer
Date: September 27 2002

Two (2) water heaters rated at 2.50 MMBtu/hr total

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 0.002	Dichlorobenzene 0.001	Formaldehyde 0.075	Hexane 1.80	Toluene 0.003
Potential Emission in tons/yr	0.00002	0.00001	0.001	0.020	0.0000

HAPs - Metals						
Emission Factor in lb/MMcf	Lead 0.001	Cadmium 0.001	Chromium 0.001	Manganese 0.0004	Nickel 0.002	Total
Potential Emission in tons/yr	0.00001	0.00001	0.00002	0.00000	0.00002	0.021

Methodology is the same as page 4.

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.