

New Source Review and Part 70 Operating Permit

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT - OFFICE OF AIR QUALITY AND VIGO COUNTY AIR POLLUTION CONTROL

**Boral Bricks Terre Haute Plant
5601 E. Price Road
Terre Haute, Indiana 47802**

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

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|---|----------------------------------|
| Operation Permit No.: T167-23205-00139 | |
| Issued by: // Original Signed By // | Issuance Date: August 31, 2007 |
| Nisha Sizemore Permits Branch Chief Office of Air Quality | Expiration Date: August 31, 2012 |

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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) and Vigo County Air Pollution Control (VCAPC). The information describing the source contained in conditions A.1 through 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 manufacturing plant.

| | |
|------------------------------|--|
| Source Address: | 5601 E. Price Road, Terre Haute, Indiana 47802 |
| Mailing Address: | PO Box 1178, Columbus, GA 31902 |
| General Source Phone Number: | (812) 894-2454 |
| SIC Code: | 3251 |
| County Location: | Vigo |
| Source Location Status: | Maintenance attainment for 8-hour ozone and SO ₂ standards |
| Source Status: | Attainment for all other criteria pollutants Part 70 Operating Permit Program Minor Source, under PSD Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories |

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

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

- (a) Material receiving emission unit group, identified as EUG-01, consisting of:
 - (1) Dump truck unloading, approved for construction in 2007, identified as MR01, with a maximum short term capacity of 120 tons per hour.
 - (2) Receiving material apron feeder, approved for construction in 2007, identified as MR02, with a maximum short term capacity of 120 tons per hour.
 - (3) Three (3) crude material belt conveyors, approved for construction in 2007, identified as MR03, with a maximum short term capacity of 120 tons per hour each, and exhausting internally. Under NSPS Subpart OOO, these are conveyors with transfer points enclosed in a building.

- (b) Clay grinding and screening operations emission unit group, identified as EUG-02, consisting of:
 - (1) Primary crusher, approved for construction in 2007, identified as GR01, with a maximum short term capacity of 120 tons per hour, and exhausting internally. Under NSPS OOO, this is an affected facility enclosed in a building.
 - (2) Scalping screen, approved for construction in 2007, identified as GR02, with a maximum short term capacity of 120 tons per hour, controlled by dust collector CD02, and exhausting through stack CD02. Under NSPS OOO, this is an affected facility with a stack.
 - (3) Screens (bank of 3 units), approved for construction in 2007, identified as GR03, with a maximum short term capacity of 120 tons per hour, controlled by dust collector CD02, and exhausting through stack CD02. Under NSPS OOO, this is an affected facility with a stack.
 - (4) Seven (7) processing belt conveyors, approved for construction in 2007, identified as GR04, with a maximum short term capacity of 120 tons per hour each, controlled by dust collector CD02, and exhausting through stack CD02. Under NSPS OOO, this is an affected facility with a stack.

- (5) Impact crusher, approved for construction in 2007, identified as GR05, with a maximum short term capacity of 120 tons per hour, controlled by dust collector CD02, and exhausting through stack CD02. Under NSPS OOO, this is an affected facility with a stack.
 - (6) Two (2) screw conveyors, approved for construction in 2007, identified as GR06, with a maximum short term capacity of 120 tons per hour each, controlled by dust collector CD02, and exhausting through stack CD02. Under NSPS OOO, this is an affected facility with a stack.
 - (7) Three (3) raw material bins, approved for construction in 2007, identified as GR07, with a maximum short term capacity of 120 tons per hour, and exhausting internally. Under NSPS OOO, this is an affected facility enclosed in a building.
 - (8) Three (3) raw material feeders, approved for construction in 2007, identified as GR08, with a maximum short term capacity of 120 tons per hour, and exhausting internally. Under NSPS OOO, this is an affected facility enclosed in a building.
- (c) Processed clay emission unit group, identified as EUG-03, consisting of:
- (1) Processed clay bunker filling, approved for construction in 2007, identified as PC01, with a maximum short term capacity of 120 tons per hour, and exhausting internally.
 - (2) Reclaimer, approved for construction in 2007, identified as PC02, with a maximum short term capacity of 120 tons per hour, and exhausting internally.
 - (3) Six (6) processed clay feed conveyors, four (4) between the double shaft mixer and the intermediate storage area and two (2) from intermediate storage to brick manufacturing, approved for construction in 2007, identified as PC03, with a maximum short term capacity of 120 tons per hour each, and exhausting internally.
 - (4) Reclaimer by-pass chute, approved for construction in 2007, identified as PC04, with a maximum short term capacity of 120 tons per hour, and exhausting internally.
- (d) Sand handling emission unit group, identified as EUG-04, consisting of:
Sand tank silo, approved for construction in 2007, identified as SD02, with a maximum short term capacity of 30 tons per day.
- (e) Brick forming and firing emission unit group, identified as EUG-05, consisting of:
- (1) Tunnel dryer, approved for construction in 2007, identified as EU01, with a maximum short term capacity of 26 tons of brick per hour, with a maximum supplemental heat rate of 5.943 million (MM) BTU per hour firing natural gas, without control, and exhausting through stack EU01.
 - (2) Landfill gas-fired Tunnel Kiln with natural gas as back up, approved for construction in 2007, identified as EU02, with a maximum firing rate of 55 million (MM) Btu per hour, with a maximum capacity of 26 tons of brick per hour, with a dry lime injection fabric filter (DIFF)(CD01) for control, and exhausting through stack CD01. Under 326 IAC 20-72, which incorporated by reference NESHAP JJJJJ (July 1, 2006 version), this is a new affected source using a dry lime injection fabric filter (DIFF) emissions control system to comply with the rule.

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

This stationary source also includes the following specifically regulated insignificant activities:

- (a) Paved and unpaved roads and parking lots with public access. [326 IAC 6-5]
- (b) Sand (supersack), approved for construction in 2007, identified as SD01, with a maximum short term capacity of 30 tons per day. [326 IAC 6.5]

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

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

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

SECTION B GENERAL CONDITIONS

B.1 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 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.3 Affidavit of Construction [326 IAC 2-5.1-3(h)] [326 IAC 2-5.1-4]

This document shall also become the approval to operate pursuant to 326 IAC 2-5.1-4 when prior to the start of operation, the following requirements are met:

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ) and Vigo County Air Pollution Control (VCAPC), verifying that the emission units were constructed as proposed in the application or the permit. The emission units covered in this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM and VCAPC if constructed as proposed.
- (b) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2 and an Operation Permit Validation Letter is issued.
- (c) The Permittee shall attach the Operation Permit Validation Letter received from the Vigo County Air Pollution Control (VCAPC) to this permit.

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

- (a) This permit, T167-23205-00139, 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 and VCAPC, 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.5 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.6 Enforceability [326 IAC 2-7-7]

- (a) 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 and VCAPC, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

- (b) Unless otherwise stated, all terms and conditions in this permit that are local requirements, including any provisions designed to limit the source's potential to emit, are enforceable by VCAPC.

B.7 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.8 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.9 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

(a) The Permittee shall furnish to IDEM, OAQ and VCAPC, within a reasonable time, any information that IDEM, OAQ and VCAPC 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 and VCAPC copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ and VCAPC, 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.10 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 the "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. One (1) certification may cover multiple forms in one (1) submittal.

(c) The "responsible official" is defined at 326 IAC 2-7-1(34).

B.11 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

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 and VCAPC, 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 and VCAPC may require to determine the compliance status of the source.

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

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

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

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

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ and VCAPC upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ and VCAPC. IDEM, OAQ and VCAPC 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.13 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (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, and VCAPC 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
Vigo County Air Pollution Control phone: (812) 462-3433; fax: (812) 462-3447

- (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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

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 and VCAPC 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 and VCAPC 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.14 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, or VCAPC 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, or VCAPC 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, or VCAPC has issued the modification. [326 IAC 2-7-12(b)(8)]

B.15 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 T167-23205-00139 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

B.16 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.17 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

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

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit.

[326 IAC 2-7-5(6)(C)] The notification by the Permittee does require 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 and VCAPC 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 and VCAPC 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 and VCAPC at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ and VCAPC may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.19 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and VCAPC 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

- (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 and VCAPC 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 and VCAPC 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 and VCAPC any additional information identified as being needed to process the application.

B.20 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

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.21 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.22 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

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 and VCAPC 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.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.23 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

B.24 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, and VCAPC 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.25 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

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.26 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 and VCAPC 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 and VCAPC 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.27 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 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.2 Open Burning [326 IAC 4-1] [IC 13-17-9]

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

C.3 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

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

C.4 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).

C.5 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on February 20, 2007. The plan is included as Attachment A.

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.

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
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

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) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

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 and VCAPC 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, OAQ and VCAPC not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ and VCAPC if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented when operation begins. 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 when operation begins, 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

in writing, prior to startup, 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.11 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.

C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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

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

C.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 shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

- (b) These ERPs shall be submitted for approval to:

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

within 180 days from the date on which this source commences operation.

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

- (c) If the ERP is disapproved by IDEM, OAQ and VCAPC, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ and VCAPC 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; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall 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 and VCAPC, 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 twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ and VCAPC reserve 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)(3), starting in 2009 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
 - (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

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

The statement must be submitted to:

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

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

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

- (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 and VCAPC 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]

- (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 or VCAPC makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or VCAPC 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.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

- (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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807

- (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 and VCAPC 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) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. 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.

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 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Clay/shale Processing

- (a) Material receiving emission unit group, identified as EUG-01, consisting of:
- (1) Dump truck unloading, approved for construction in 2007, identified as MR01, with a maximum short term capacity of 120 tons per hour.
 - (2) Receiving material apron feeder, approved for construction in 2007, identified as MR02, with a maximum short term capacity of 120 tons per hour.
 - (3) Three (3) crude material belt conveyors, approved for construction in 2007, identified as MR03, with a maximum short term capacity of 120 tons per hour each, and exhausting internally. Under NSPS Subpart OOO, these are conveyors with transfer points enclosed in a building.
- (b) Clay grinding and screening operations emission unit group, identified as EUG-02, consisting of:
- (1) Primary crusher, approved for construction in 2007, identified as GR01, with a maximum short term capacity of 120 tons per hour, and exhausting internally. Under NSPS OOO, this is an affected facility enclosed in a building.
 - (2) Scalping screen, approved for construction in 2007, identified as GR02, with a maximum short term capacity of 120 tons per hour, controlled by dust collector CD02, and exhausting through stack CD02. Under NSPS OOO, this is an affected facility with a stack.
 - (3) Screens (bank of 3 units), approved for construction in 2007, identified as GR03, with a maximum short term capacity of 120 tons per hour, controlled by dust collector CD02, and exhausting through stack CD02. Under NSPS OOO, this is an affected facility with a stack.
 - (4) Seven (7) processing belt conveyors, approved for construction in 2007, identified as GR04, with a maximum short term capacity of 120 tons per hour each, controlled by dust collector CD02, and exhausting through stack CD02. Under NSPS OOO, this is an affected facility with a stack.
 - (5) Impact crusher, approved for construction in 2007, identified as GR05, with a maximum short term capacity of 120 tons per hour, controlled by dust collector CD02, and exhausting through stack CD02. Under NSPS OOO, this is an affected facility with a stack.
 - (6) Two (2) screw conveyors, approved for construction in 2007, identified as GR06, with a maximum short term capacity of 120 tons per hour each, controlled by dust collector CD02, and exhausting through stack CD02. Under NSPS OOO, this is an affected facility with a stack.
 - (7) Three (3) raw material bins, approved for construction in 2007, identified as GR07, with a maximum short term capacity of 120 tons per hour, and exhausting internally. Under NSPS OOO, this is an affected facility enclosed in a building.
 - (8) Three (3) raw material feeders, approved for construction in 2007, identified as GR08, with a maximum short term capacity of 120 tons per hour, and exhausting internally. Under NSPS OOO, this is an affected facility enclosed in a building.
- (c) Processed clay emission unit group, identified as EUG-03, consisting of:
- (1) Processed clay bunker filling, approved for construction in 2007, identified as PC01, with a maximum short term capacity of 120 tons per hour, and exhausting internally.
 - (2) Reclaimer, approved for construction in 2007, identified as PC02, with a maximum short term capacity of 120 tons per hour, and exhausting internally.
 - (3) Six (6) processed clay feed conveyors, four (4) between the double shaft mixer and the intermediate storage area and two (2) from intermediate storage to brick manufacturing, approved for construction in 2007, identified as PC03, with a maximum short term capacity of 120 tons per hour each, and exhausting internally.

- (4) Reclaimer by-pass chute, approved for construction in 2007, identified as PC04, with a maximum short term capacity of 120 tons per hour, and exhausting internally.

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

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

D.1.1 Particulate [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a), the Permittee shall not allow or permit the discharge into the atmosphere any gases containing a particulate matter content greater than 0.03 grain per dry standard cubic foot.

D.1.2 PSD Minor Limit [326 IAC 2-2]

- (a) The amount of clay/shale processed shall be less than 500,000 tons per twelve consecutive month period, with compliance determined at the end of each month.
- (b) The PM emissions from the Clay Preparation Dust Collector, identified as CD02, which controls emissions from the scalping screen, screens, processing belt conveyors, impact crusher, and screw conveyors, shall not exceed 0.10 pounds per ton processed.
- (c) The PM₁₀ emissions from the Clay Preparation Dust Collector, identified as CD02, which controls emissions from the scalping screen, screens, processing belt conveyors, impact crusher, and screw conveyors, shall not exceed 0.0109 pounds per ton processed.

Compliance with this limit, in combination with compliance with Condition D.3.2 and emissions of PM and PM₁₀ from all other emission units at this source, shall limit the source-wide PM and PM₁₀ emissions to less than 250 tons per year, each, rendering 326 IAC 2-2, PSD, not applicable.

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

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

D.1.4 Particulate Control [326 IAC 2-7-6(6)]

- (a) In order to comply with Conditions D.1.1 and D.1.2, the dust collector, identified as CD02, for particulate control shall be in operation and control emissions from the scalping screen (GR02), bank of 3 screens (GR03), seven processing belt conveyors (GR04), impact crusher (GR05), and two screw conveyors (GR06) at all times that the applicable equipment is in operation.
- (b) In the event that bag failure is observed in a multi-compartment dust collector, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ and VCAPC of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within 180 days of startup, in order to demonstrate compliance with Conditions D.1.1 and D.1.2, the Permittee shall perform PM and PM₁₀ testing for the dust collector CD02 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. PM₁₀ includes filterable and condensable PM₁₀. Testing shall be conducted in accordance with Section C - Performance Testing.

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

D.1.6 Visible Emissions Notations

- (a) Visible emission notations of the dust collector stack, CD02, exhaust 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.

D.1.7 Dust Collector Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) The Permittee shall record the pressure drop across the dust collector (CD02) used in conjunction with the clay grinding and screening operations at least once per day when the grinding and screening equipment (EUG-02) is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.8 Broken or Failed Bag Detection

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

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, or dust traces.

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

D.1.9 Record Keeping Requirements

- (a) To document compliance with Condition D.1.2, the Permittee shall maintain monthly records of the amount of clay/shale processed.
- (b) To document compliance with Condition D.1.6, the Permittee shall maintain records of visible emission notations of the dust collector stack, CD02, exhaust once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the process did not operate that day).
- (c) To document compliance with Condition D.1.7, the Permittee shall maintain records once per day of the pressure drop. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g., the process did not operate that day).
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.2 shall be submitted to the addresses 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).

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

D.1.11 General Provisions Relating to NSPS Subpart OOO [326 IAC 12] [40 CFR Part 60, Subpart A]

Pursuant to 40 CFR 60.670, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12 for the clay/shale processing operations, as specified in Table 1 of 40 CFR Part 60, Subpart OOO in accordance with schedule in 40 CFR 60 Subpart OOO. Applicable facilities are identified in the following Table:

| Emission Unit Group | Emission Unit | Description | Control Device |
|----------------------------|----------------------|---|-----------------------|
| EUG-01 | MR02 | Receiving material apron feeder | |
| EUG-01 | MR03 | Three (3) crude material belt conveyors | |
| EUG-02 | GR01 | Primary Crusher | |
| EUG-02 | GR02 | Scalping screen | Baghouse CD02 |
| EUG-02 | GR03 | Screens (bank of 3 units) | Baghouse CD02 |
| EUG-02 | GR04 | Seven (7) processing belt conveyors | Baghouse CD02 |
| EUG-02 | GR05 | Impact crusher | Baghouse CD02 |
| EUG-02 | GR06 | Two (2) screw conveyors | Baghouse CD02 |
| EUG-02 | GR07 | Three (3) raw material bins | |
| EUG-02 | GR08 | Three (3) raw material feeders | |

D.1.12 NSPS Subpart 000 Requirements [40 CFR Part 60, Subpart 000] [326 IAC 12]

Pursuant to CFR Part 60, Subpart 000, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart 000, which are incorporated by reference as 326 IAC 12 for the clay/shale processing operations, identified in the Table located in condition D.1.11, and as specified as follows.

§ 60.670 *Applicability and designation of affected facility.*

(a)(1) Except as provided in paragraphs (a)(2), (b), (c), and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. Also, crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin are subject to the provisions of this subpart.

(e) An affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after August 31, 1983 is subject to the requirements of this part.

(f) Table 1 of this subpart specifies the provisions of subpart A of this part 60 that apply and those that do not apply to owners and operators of affected facilities subject to this subpart.

Table 1_Applicability of Subpart A to Subpart 000

| Subpart A reference | Applies to Subpart 000 | Comment |
|--|------------------------|--|
| 60.1, Applicability..... | Yes..... | |
| 60.2, Definitions..... | Yes..... | |
| 60.3, Units and abbreviations..... | Yes..... | |
| 60.4, Address: | | |
| (a)..... | Yes..... | |
| (b)..... | Yes..... | |
| 60.5, Determination of construction or modification. | Yes..... | |
| 60.6, Review of plans..... | Yes..... | |
| 60.7, Notification and recordkeeping.. | Yes..... | Except in (a)(2) report of anticipated date of initial startup is not required (§ 60.676(h)). |
| 60.8, Performance tests..... | Yes..... | Except in (d), after 30 days notice for an initially scheduled performance test, any rescheduled performance test requires 7 days notice, not 30 days (§ 60.675(g)). |
| 60.9, Availability of information..... | Yes..... | |
| 60.10, State authority..... | Yes..... | |
| 60.11, Compliance with standards and maintenance requirements. | Yes..... | Except in (b) under certain conditions (§§ 60.675 (c)(3) and (c)(4)), Method 9 observation may be reduced from 3 hours to 1 hour. Some affected facilities exempted from Method 9 tests (§ 60.675(h)). |
| 60.12, Circumvention..... | Yes..... | |
| 60.13, Monitoring requirements..... | Yes..... | |
| 60.14, Modification..... | Yes..... | |
| 60.15, Reconstruction..... | Yes..... | |
| 60.16, Priority list..... | Yes..... | |
| 60.17, Incorporations by reference.... | Yes..... | |
| 60.18, General control device..... | No..... | Flares will not be used to comply with the emission limits. |
| 60.19, General notification and reporting requirements. | Yes..... | |

§ 60.671 *Definitions.*

All terms used in this subpart, but not specifically defined in this section, shall have the meaning given them in the Act and in subpart A of this part.

Bagging operation means the mechanical process by which bags are filled with nonmetallic minerals.

Belt conveyor means a conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

Bucket elevator means a conveying device of nonmetallic minerals consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

Building means any frame structure with a roof.

Capacity means the cumulative rated capacity of all initial crushers that are part of the plant.

Capture system means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport particulate matter generated by one or more process operations to a control device.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more process operations at a nonmetallic mineral processing plant.

Conveying system means a device for transporting materials from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to the following: Feeders, belt conveyors, bucket elevators and pneumatic systems.

Crusher means a machine used to crush any nonmetallic minerals, and includes, but is not limited to, the following types: jaw, gyratory, cone, roll, rod mill, hammermill, and impactor.

Enclosed truck or railcar loading station means that portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.

Fixed plant means any nonmetallic mineral processing plant at which the processing equipment specified in §60.670(a) is attached by a cable, chain, turnbuckle, bolt or other means (except electrical connections) to any anchor, slab, or structure including bedrock.

Fugitive emission means particulate matter that is not collected by a capture system and is released to the atmosphere at the point of generation.

Grinding mill means a machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.

Initial crusher means any crusher into which nonmetallic minerals can be fed without prior crushing in the plant.

Nonmetallic mineral means any of the following minerals or any mixture of which the majority is any of the following minerals:

(a) Crushed and Broken Stone, including Limestone, Dolomite, Granite, Traprock, Sandstone, Quartz, Quartzite, Marl, Marble, Slate, Shale, Oil Shale, and Shell.

(b) Sand and Gravel.

- (c) Clay including Kaolin, Fireclay, Bentonite, Fuller's Earth, Ball Clay, and Common Clay.
- (d) Rock Salt.
- (e) Gypsum.
- (f) Sodium Compounds, including Sodium Carbonate, Sodium Chloride, and Sodium Sulfate.
- (g) Pumice.
- (h) Gilsonite.
- (i) Talc and Pyrophyllite.
- (j) Boron, including Borax, Kernite, and Colemanite.
- (k) Barite.
- (l) Fluorospar.
- (m) Feldspar.
- (n) Diatomite.
- (o) Perlite.
- (p) Vermiculite.
- (q) Mica.
- (r) Kyanite, including Andalusite, Sillimanite, Topaz, and Dumortierite.

Nonmetallic mineral processing plant means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants, or any other facility processing nonmetallic minerals except as provided in §60.670 (b) and (c).

Portable plant means any nonmetallic mineral processing plant that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turnbuckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab, or structure, including bedrock that must be removed prior to the application of a lifting or pulling force for the purpose of transporting the unit.

Production line means all affected facilities (crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck and railcar loading stations) which are directly connected or are connected together by a conveying system.

Screening operation means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series, and retaining oversize material on the mesh surfaces (screens).

Size means the rated capacity in tons per hour of a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station; the total surface area of the top screen of a screening operation; the width of a conveyor belt; and the rated capacity in tons of a storage bin.

Stack emission means the particulate matter that is released to the atmosphere from a capture system.

Storage bin means a facility for storage (including surge bins) or nonmetallic minerals prior to further processing or loading.

Transfer point means a point in a conveying operation where the nonmetallic mineral is transferred to or from a belt conveyor except where the nonmetallic mineral is being transferred to a stockpile.

Truck dumping means the unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include but are not limited to: trucks, front end loaders, skip hoists, and railcars.

Vent means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter emissions from one or more affected facilities.

Wet mining operation means a mining or dredging operation designed and operated to extract any nonmetallic mineral regulated under this subpart from deposits existing at or below the water table, where the nonmetallic mineral is saturated with water.

Wet screening operation means a screening operation at a nonmetallic mineral processing plant which removes unwanted material or which separates marketable fines from the product by a washing process which is designed and operated at all times such that the product is saturated with water.

§ 60.672 *Standard for particulate matter.*

(a) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any stack emissions which:

(1) Contain particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf); and

(2) Exhibit greater than 7 percent opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing control device. Facilities using a wet scrubber must comply with the reporting provisions of §60.676 (c), (d), and (e).

(b) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in paragraphs (c), (d), and (e) of this section.

(d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.

(e) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a), (b) and (c) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:

(1) No owner or operator shall cause to be discharged into the atmosphere from any building enclosing any transfer point on a conveyor belt or any other affected facility any visible fugitive emissions except emissions from a vent as defined in §60.671.

(2) No owner or operator shall cause to be discharged into the atmosphere from any vent of any building enclosing any transfer point on a conveyor belt or any other affected facility emissions which exceed the stack emissions limits in paragraph (a) of this section.

§ 60.675 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.

(b) The owner or operator shall determine compliance with the particulate matter standards in §60.672(a) as follows:

(1) Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

(2) Method 9 and the procedures in §60.11 shall be used to determine opacity.

(c)(1) In determining compliance with the particulate matter standards in §60.672 (b) and (c), the owner or operator shall use Method 9 and the procedures in §60.11, with the following additions:

(i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

(ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.

(d) In determining compliance with §60.672(e), the owner or operator shall use Method 22 to determine fugitive emissions. The performance test shall be conducted while all affected facilities inside the building are operating. The performance test for each building shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes.

(e) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For the method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

(i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.

(ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.

(g) If, after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting any rescheduled performance test required in this section, the owner or operator of an affected facility shall submit a notice to the Administrator at least 7 days prior to any rescheduled performance test.

§ 60.676 Reporting and recordkeeping.

(f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 to demonstrate compliance with §60.672(b), (c), and (f), and reports of observations using Method 22 to demonstrate compliance with §60.672(e).

(i) A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator.

(1) For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

(j) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected facilities within the State will be relieved of the obligation to comply with the reporting requirements of this section, provided that they comply with requirements established by the State.

D.1.13 One Time Deadlines Relating to NSPS Subpart OOO

(a) The Permittee must conduct the initial performance tests within 60 days after achieving the maximum production, but not later than 180 days after initial startup.

(b) The Permittee must submit a notification of the actual date of startup within 15 days after startup.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Sand handling emission unit group

- (d) Sand handling emission unit group, identified as EUG-04, consisting of:
Sand tank silo, approved for construction in 2007, identified as SD02, with a maximum short term capacity of 30 tons per day.

Specifically Regulated Insignificant Activities

- (a) Paved and unpaved roads and parking lots with public access. [326 IAC 6-5]
- (b) Sand (supersack), approved for construction in 2007, identified as SD01, with a maximum short term capacity of 30 tons per day. [326 IAC 6.5]

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

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

D.2.1 Particulate [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a), the Permittee shall not allow or permit the discharge into the atmosphere any gases containing a particulate matter content greater than 0.03 grain per dry standard cubic foot.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Brick forming and firing emission unit group

- (e) Brick forming and firing emission unit group, identified as EUG-05, consisting of:
 - (1) Tunnel dryer, approved for construction in 2007, identified as EU01, with a maximum short term capacity of 26 tons of brick per hour, with a maximum supplemental heat rate of 5.943 million (MM) BTU per hour firing natural gas, without control, and exhausting through stack EU01.
 - (2) Landfill gas-fired Tunnel Kiln with natural gas as back up, approved for construction in 2007, identified as EU02, with a maximum firing rate of 55 million (MM) Btu per hour, with a maximum capacity of 26 tons of brick per hour, with a dry lime injection fabric filter (DIFF)(CD01) for control, and exhausting through stack CD01. Under 326 IAC 20-72, which incorporated by reference NESHAP JJJJJ (July 1, 2006 version), this is a new affected source using a dry lime injection fabric filter (DIFF) emissions control system to comply with the rule.

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

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

D.3.1 Particulate Emissions [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a), the Permittee shall not allow or permit the discharge into the atmosphere any gases containing a particulate matter content greater than 0.03 grain per dry standard cubic foot.

D.3.2 PSD Minor Source [326 IAC 2-2]

- (a) The amount of fired product from the tunnel kiln (EU02) shall be less than 227,500 tons per twelve consecutive month period, with compliance determined at the end of each month.
- (b) The PM emissions from the tunnel kiln (EU02) shall be limited to 0.12 pounds per ton of fired product.
- (c) The PM₁₀ emissions from the tunnel kiln (EU02) shall not exceed 0.87 pounds per ton of fired product.
- (d) The SO₂ emissions from the tunnel kiln (EU02) when ducted through the Dry Injection Fabric Filter (DIFF) (CD01), shall not exceed 2.11 pound per ton of fired product.
- (e) The SO₂ emissions from the tunnel kiln (EU02), when bypassing the Dry Injection Fabric Filter (DIFF)(CD01), shall not exceed 4.69 pound per ton of fired product.
- (f) The Dry Injection Fabric Filter (DIFF) (CD01) for SO₂ control shall be in operation and control emissions from the Tunnel Kiln at all times that the Tunnel Kiln is in operation, except for a maximum of 123 hours per 12 consecutive month period during which the DIFF may be bypassed (for routine maintenance).

Compliance with these limits, in combination with compliance with Condition D.1.2 and emissions of PM and PM₁₀ from all other emission units at this source, shall limit the source-wide PM, PM₁₀, and SO₂ emissions to less than 250 tons per year, each, rendering 326 IAC 2-2, PSD, not applicable.

D.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

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

D.3.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) Within 180 days of startup, but no more than 60 days after reaching maximum production, in order to demonstrate compliance with Conditions D.3.2(d), (e), and (f), the Permittee shall perform SO₂ testing for the Dry Injection Fabric Filter (CD01) stack 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 of startup, but no more than 60 days after reaching maximum production, in order to demonstrate compliance with Condition D.3.1, the Permittee shall perform PM testing for the Dry Injection Fabric Filter (CD01) stack (before and after the control device) 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.
- (c) Within 180 days of startup, but no more than 60 days after reaching maximum production, in order to demonstrate compliance with Condition D.3.2(b) and (c), the Permittee shall perform PM and PM10 testing for the Dry Injection Fabric Filter (CD01) stack 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. PM10 includes filterable and condensable PM10. Testing shall be conducted in accordance with Section C - Performance Testing.

D.3.5 SO₂ Control [326 IAC 2-7-6(6)]

In order to comply with Condition D.3.2 and the limitations that make the source minor pursuant to 326 IAC 2-2 (PSD), the Dry Injection Fabric Filter (DIFF) for SO₂ control shall be in operation and control emissions from the Tunnel Kiln at all times that the Tunnel Kiln is in operation, except for a maximum of 123 hours per 12 consecutive month period during which the DIFF may be bypassed (for routine maintenance).

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

D.3.6 Visible Emissions Notations

- (a) Visible emission notations of the dry injection fabric filter (DIFF) stack (CD01) exhaust 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.

D.3.7 Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) The Permittee shall record the pressure drop across the dry lime injection fabric filter (CD01) used in conjunction with the tunnel kiln (EU02) at least once per day when the tunnel kiln is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 14.5 and 17.5 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.
- (c) The Permittee shall continuously monitor the dry lime feed rate at the one (1) lime injection baghouse in accordance with 40 CFR 63, Subpart JJJJJ. When the dry lime feed rate is below 85 pounds per hour or a rate established during the latest performance test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A reading that is below the above mentioned rate is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (d) The Permittee shall inspect the dry lime feed system and feeder setting on the dry lime injection baghouse once per day. If the lime feeder setting drops below the level established during the latest performance test, the switches and/or level sensors monitoring the interlock system on the limestone delivery systems, including the lime screw conveyor and holding bin, are not functioning properly, or the Permittee discovers cracks, holes or abnormal/excessive wear on the indicators for the screw conveyor and holding bin, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A feeder setting that is below the level established during the latest performance test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.3.8 Broken or Failed Bag Detection

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

Bag failure can be indicated by a significant drop in the baghouses pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

D.3.9 Compliance Assurance Monitoring (CAM) [40 CFR Part 64]

Pursuant to 40 CFR Part 64, the Permittee shall comply with the following compliance assurance monitoring requirements for Dry Injection Fabric Filter (DIFF)(CD01):

- (a) Monitoring Approach for Dry Lime Injection Fabric Filter (DIFF) used to control SO₂ emissions from Tunnel Kiln EU01.

| | Indicator #1 | Indicator #2 | Indicator #3 | Indicator #4 |
|----------------------------------|--|--|--|--|
| I. Indicator | Free-flowing lime feed into DIFF | Monitor lime feeder setting to ensure within acceptable range determined from performance test | Visible emissions from DIFF stack | Performance test |
| Measurement Approach | Verify lime is free flowing via high/low level sensor on "POD" feeding DIFF | Verify lime feeder setting to ensure adequate lime is available to achieve required emission reduction | Perform Method 22 for visible emissions from DIFF exhaust stack | Conduct emissions test to demonstrate compliance and establish lime feed rate and associated destruction efficiency |
| II. Indicator Range | An excursion is identified as either a high or low level alarm indicating improper lime flow | An excursion is identified as the lime feeder setting below the acceptable range established during performance test | An excursion is identified as observance of visible emissions | An excursion is identified when control efficiency is demonstrated through performance testing to be below effective levels |
| Corrective Action | Each excursion triggers an assessment of the problem, corrective action in accordance with OM&M plan | Each excursion triggers an assessment of the problem, corrective action in accordance with OM&M plan | Each excursion triggers an assessment of the problem, corrective action in accordance with OM&M plan | Each excursion triggers an assessment of the problem, corrective action and a possible reporting and/or permitting requirement |
| III. Performance Criteria | | | | |

| | Indicator #1 | Indicator #2 | Indicator #3 | Indicator #4 |
|---------------------------------------|--|--|--|--|
| A. Data Representativeness | Pod is designed to feed lime from the lime silo into screw conveyor which flows into DIFF system. Measuring low/high levels in the pod ensure free flowing lime feed through system. | Maintain lime feeder setting above established compliance parameter ensures proper control removal will be achieved | Maintaining no visible emissions is an indicator of proper performance | A test protocol shall be prepared and approved by IDEM prior to conducting performance test |
| B. Verification of Operational Status | Inspection and maintenance records, absence of alarm signal | Records of lime feed setting | Not Applicable | Data collection at time of performance testing will verify operational status |
| C. QA/QC Practices and Criteria | Installation and calibration is done in accordance with the manufacturer's recommendations and OM&M plan | Installation and calibration is done in accordance with the manufacturer's recommendations and OM&M plan | Not Applicable | Test protocol will outline standard QA/QC procedures to be followed during performance test |
| D. Monitoring Frequency | Every 15 minutes or continuously | Every 15 minutes or continuously | Daily under normal operating conditions | Every 5 years |
| Data Collection Procedure | Record any sensor output | Record feeder setting | Observe stack for 15 minutes daily and record if visible emissions are observed | Performance test report |
| Averaging Period | Not Applicable | Not Applicable | Not Applicable | Not Applicable |
| E. Recordkeeping | Maintain for a period of 5 years all records, logs, inspections and corrective actions taken in response to excursions | Maintain for a period of 5 years all records, logs, inspections and corrective actions taken in response to excursions | Maintain for a period of 5 years all records, logs, inspections and corrective actions taken in response to excursions | Maintain copy of test report for a period of 5 years or until another test is conducted; record of any corrective action taken in response to excursions |

| | Indicator #1 | Indicator #2 | Indicator #3 | Indicator #4 |
|--------------|--|--|--|--|
| F. Reporting | Number, duration, cause of any excursion and any corrective action taken | Number, duration, cause of any excursion and any corrective action taken | Number, duration, cause of any excursion and any corrective action taken | Submit test protocol and notification of testing to IDEM at least 60 days prior to test date; Submit test report within 45 days of completing performance test |
| Frequency | Semiannually | Semiannually | Semiannually | For each performance test conducted |

(b) Rationale for Selection of Performance Indicators

Monitoring of the free flow of lime and feeder setting of the DIFF control system ensures ongoing availability of reagent which is necessary to allow the reactions to occur which reduce SO₂ emissions. The "POD" is equipped with a high and low level sensor which will provide a continuous indication the lime is free flowing. Bridging in the silo would be reflected by a low level alarm, and bridging in the screw would be reflected by a high level alarm. The minimum rate of feed will be established based on the rates during a successful performance test.

Observations of visible emissions (VE) is a parameter that can be readily monitored to ensure the fabric filters are properly functioning. This will allow simple detection of any bag leaks or other conditions indicating improper operation.

(c) Rationale for Selection of Indicator Ranges

The selected indicator range which measures free flow of lime feed is a positive determination of proper operation rather than a specific range. This determination, combined with a minimum feeder setting for the lime feed rate, are indicative of proper SO₂ control. Selection of the minimum lime feed rate will be established by performance testing. Therefore, the selected indicator range will be directly tied to actual measured emissions demonstrating compliance.

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

D.3.10 Record Keeping Requirements

- (a) To document compliance with Condition D.3.2(a), the Permittee shall maintain monthly records of the amount of amount of fired product through the tunnel kiln (EU02).
- (b) To document compliance with Condition D.3.2(f), the Permittee shall maintain monthly records of the amount time the Dry Injection Fabric Filter (DIFF) was bypassed.
- (c) To document compliance with Condition D.3.6, the Permittee shall maintain records of visible emission notations of the dust collector stack, CD02, exhaust once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the process did not operate that day).

- (d) To document compliance with Condition D.3.7(a) and (d), the Permittee shall maintain records once per day of the pressure drop and lime feeder setting. The Permittee shall include in its daily record when a pressure drop reading or lime feeder setting reading is not taken and the reason for the lack of pressure drop reading or lime feeder setting reading (e.g., the process did not operate that day).
- (e) To document compliance with Condition D.3.7(c), the Permittee shall maintain continuous records of the dry lime feed rate as demonstrated using lime feeder setting established during the latest performance test.
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.11 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Condition D.3.2 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).
- (b) The natural gas certification 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 its equivalent, within thirty (30) days after the end of the six (6) month period being reported. The natural gas certification does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

D.3.12 General Provisions Relating to NESHAP Subpart JJJJJ [326 IAC 20-1] [40 CFR Part 63, Subpart A][Section 112(j) of the CAA]

Pursuant to 40 CFR 63.8505, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, as specified in Table 7 of 40 CFR Part 63, Subpart JJJJJ (July 1, 2006 version) and in accordance with the schedule in 40 CFR 63 Subpart JJJJJ (July 1, 2006 version).

D.3.13 NESHAP Subpart JJJJJ Requirements [40 CFR Part 63, Subpart JJJJJ][326 IAC 20-72][Section 112(j) of the CAA]

Pursuant to Section 112(j) of the CAA and 326 IAC 20-72 MACT has been determined to be the July 1, 2006 version of 40 CFR Part 63, Subpart JJJJJ, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart JJJJJ (July 1, 2006 version), for the one (1) tunnel kiln, identified as EU02, upon initial startup, as specified as follows:

§ 63.8380 *What is the purpose of this subpart?*

This subpart establishes national emission limitations for hazardous air pollutants (HAP) emitted from brick and structural clay products (BSCP) manufacturing facilities. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§ 63.8385 *Am I subject to this subpart?*

You are subject to this subpart if you own or operate a BSCP manufacturing facility that is, is located at, or is part of, a major source of HAP emissions according to the criteria in paragraphs (a) and (b) of this section.

(a) A BSCP manufacturing facility is a plant site that manufactures 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. Brick and structural clay products manufacturing facilities typically process raw clay and shale, form the processed materials into bricks or shapes, and dry and fire the bricks or shapes.

(b) A major source of HAP emissions is any stationary source or group of stationary sources within a contiguous area under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (10 tons) or more per year or any combination of HAP at a rate of 22.68 megagrams (25 tons) or more per year.

§ 63.8390 *What parts of my plant does this subpart cover?*

(a) This subpart applies to each existing, new, or reconstructed affected source at a BSCP manufacturing facility.

(e) Each new or reconstructed tunnel kiln is an affected source regardless of design capacity. All process streams from each new or reconstructed tunnel kiln are subject to the requirements of this subpart.

(h) A source is a new affected source if construction of the affected source began after July 22, 2002, and you met the applicability criteria at the time you began construction.

§ 63.8395 *When do I have to comply with this subpart?*

(a) If you have a new or reconstructed affected source, you must comply with this subpart according to paragraphs (a)(1) and (2) of this section.

(2) If the initial startup of your affected source is after May 16, 2003, then you must comply with the applicable emission limitations in Tables 1 and 2 to this subpart upon initial startup of your affected source.

(e) You must meet the notification requirements in §63.8480 according to the schedule in §63.8480 and in 40 CFR part 63, subpart A. Some of the notifications must be submitted before you are required to comply with the emission limitations in this subpart.

§ 63.8405 *What emission limitations must I meet?*

(a) You must meet each emission limit in Table 1 to this subpart that applies to you.

(b) You must meet each operating limit in Table 2 to this subpart that applies to you.

§ 63.8410 *What are my options for meeting the emission limitations?*

To meet the emission limitations in Tables 1 and 2 to this subpart, you must use one or more of the options listed in paragraphs (a) and (b) of this section.

(a) *Emissions control system.* Use an emissions capture and collection system and an APCD and demonstrate that the resulting emissions or emissions reductions meet the emission limits in Table 1 to this subpart, and that the capture and collection system and APCD meet the applicable operating limits in Table 2 to this subpart.

§ 63.8420 *What are my general requirements for complying with this subpart?*

(a) You must be in compliance with the emission limitations (including operating limits) in this subpart at all times, except during periods of startup, shutdown, and malfunction and during periods of routine control device maintenance as specified in paragraph (e) of this section.

(b) Except as specified in paragraph (e) of this section, you must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i). During the period between the compliance date specified for your affected source in §63.8395 and the date upon which continuous monitoring systems (CMS) (e.g., continuous parameter monitoring systems) have been installed and verified and any applicable operating limits have been set, you must maintain a log detailing the operation and maintenance of the process and emissions control equipment.

(c) You must develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3).

(d) You must prepare and implement a written operation, maintenance, and monitoring (OM&M) plan according to the requirements in §63.8425.

(e) If you own or operate an affected kiln and must perform routine maintenance on the control device for that kiln, you may bypass the kiln control device and continue operating the kiln upon approval by the Administrator provided you satisfy the conditions listed in paragraphs (e)(1) through (5) of this section.

(1) You must request a routine control device maintenance exemption from the Administrator. Your request must justify the need for the routine maintenance on the control device and the time required to accomplish the maintenance activities, describe the maintenance activities and the frequency of the maintenance activities, explain why the maintenance cannot be accomplished during kiln shutdowns, describe how you plan to minimize emissions to the greatest extent possible during the maintenance, and provide any other documentation required by the Administrator.

(2) The routine control device maintenance exemption must not exceed 4 percent of the annual operating uptime for each kiln.

(3) The request for the routine control device maintenance exemption, if approved by the Administrator, must be incorporated by reference in and attached to the affected source's title V permit.

(4) You must minimize HAP emissions during the period when the kiln is operating and the control device is offline.

(5) You must minimize the time period during which the kiln is operating and the control device is offline.

(f) You must be in compliance with the provisions of subpart A of this part, except as noted in Table 7 to this subpart.

§ 63.8425 *What do I need to know about operation, maintenance, and monitoring plans?*

(a) You must prepare, implement, and revise as necessary an OM&M plan that includes the information in paragraph (b) of this section. Your OM&M plan must be available for inspection by the permitting authority upon request.

(b) Your OM&M plan must include, as a minimum, the information in paragraphs (b)(1) through (13) of this section.

(1) Each process and APCD to be monitored, the type of monitoring device that will be used, and the operating parameters that will be monitored.

(2) A monitoring schedule that specifies the frequency that the parameter values will be determined and recorded.

(3) The limits for each parameter that represent continuous compliance with the emission limitations in §63.8405. The limits must be based on values of the monitored parameters recorded during performance tests.

(4) Procedures for the proper operation and routine and long-term maintenance of each APCD, including a maintenance and inspection schedule that is consistent with the manufacturer's recommendations.

(5) Procedures for installing the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.*, on or downstream of the last APCD).

(6) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction system.

(7) Continuous monitoring system performance evaluation procedures and acceptance criteria (*e.g.*, calibrations).

(8) Procedures for the proper operation and maintenance of monitoring equipment consistent with the requirements in §§63.8450 and 63.8(c)(1), (3), (4)(ii), (7), and (8).

(9) Continuous monitoring system data quality assurance procedures consistent with the requirements in §63.8(d).

(10) Continuous monitoring system recordkeeping and reporting procedures consistent with the requirements in §63.10(c), (e)(1), and (e)(2)(i).

(11) Procedures for responding to operating parameter deviations, including the procedures in paragraphs (b)(11)(i) through (iii) of this section.

(i) Procedures for determining the cause of the operating parameter deviation.

(ii) Actions for correcting the deviation and returning the operating parameters to the allowable limits.

(iii) Procedures for recording the times that the deviation began and ended and corrective actions were initiated and completed.

(12) Procedures for keeping records to document compliance.

(13) If you operate an affected kiln and you plan to take the kiln control device out of service for routine maintenance, as specified in §63.8420(e), the procedures specified in paragraphs (b)(13)(i) and (ii) of this section.

(i) Procedures for minimizing HAP emissions from the kiln during periods of routine maintenance of the kiln control device when the kiln is operating and the control device is offline.

(ii) Procedures for minimizing the duration of any period of routine maintenance on the kiln control device when the kiln is operating and the control device is offline.

(c) Changes to the operating limits in your OM&M plan require a new performance test. If you are revising an operating limit parameter value, you must meet the requirements in paragraphs (c)(1) and (2) of this section.

(1) Submit a notification of performance test to the Administrator as specified in §63.7(b).

(2) After completing the performance tests to demonstrate that compliance with the emission limits can be achieved at the revised operating limit parameter value, you must submit the performance test results and the revised operating limits as part of the Notification of Compliance Status required under §63.9(h).

(d) If you are revising the inspection and maintenance procedures in your OM&M plan, you do not need to conduct a new performance test.

§ 63.8435 By what date must I conduct performance tests?

You must conduct performance tests within 180 calendar days after the compliance date that is specified for your source in §63.8395 and according to the provisions in §63.7(a)(2).

§ 63.8440 When must I conduct subsequent performance tests?

(a) You must conduct a performance test before renewing your 40 CFR part 70 operating permit or at least every 5 years following the initial performance test.

(b) You must conduct a performance test when you want to change the parameter value for any operating limit specified in your OM&M plan.

§ 63.8445 How do I conduct performance tests and establish operating limits?

(a) You must conduct each performance test in Table 3 to this subpart that applies to you.

(b) Before conducting the performance test, you must install and calibrate all monitoring equipment.

(c) Each performance test must be conducted according to the requirements in §63.7 and under the specific conditions in Table 3 to this subpart.

(d) You must test while operating at the maximum production level.

(e) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §63.7(e)(1).

(f) You must conduct at least three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.

(g) You must use the data gathered during the performance test and the equations in paragraphs (g)(1) and (2) of this section to determine compliance with the emission limitations.

(1) To determine compliance with the production-based hydrogen fluoride (HF), hydrogen chloride (HCl), and particulate matter (PM) emission limits in Table 1 to this subpart, you must calculate your mass emissions per unit of production for each test run using Equation 1 of this section:

$$MP = \frac{ER}{P} \quad (\text{Eq. 1})$$

Where:

MP=mass per unit of production, kilograms (pounds) of pollutant per megagram (ton) of fired product

ER=mass emission rate of pollutant (HF, HCl, or PM) during each performance test run, kilograms (pounds) per hour

P=production rate during each performance test run, megagrams (tons) of fired product per hour.

(2) To determine compliance with the percent reduction HF and HCl emission limits in Table 1 to this subpart, you must calculate the percent reduction for each test run using Equation 2 of this section:

$$PR = \frac{ER_i - ER_o}{ER_i} (100) \quad (\text{Eq. 2})$$

Where:

PR=percent reduction, percent

ER_i=mass emission rate of specific HAP (HF or HCl) entering the APCD, kilograms (pounds) per hour

ER_o=mass emission rate of specific HAP (HF or HCl) exiting the APCD, kilograms (pounds) per hour.

(h) You must establish each site-specific operating limit in Table 2 to this subpart that applies to you as specified in Table 3 to this subpart.

§ 63.8450 *What are my monitoring installation, operation, and maintenance requirements?*

(a) You must install, operate, and maintain each CMS according to your OM&M plan and the requirements in paragraphs (a)(1) through (5) of this section.

- (1) Conduct a performance evaluation of each CMS according to your OM&M plan.
- (2) The CMS must complete a minimum of one cycle of operation for each successive 15-minute period. To have a valid hour of data, you must have at least three of four equally spaced data values (or at least 75 percent if you collect more than four data values per hour) for that hour (not including startup, shutdown, malfunction, out-of-control periods, or periods of routine control device maintenance covered by a routine control device maintenance exemption as specified in §63.8420(e)).
- (3) Determine and record the 3-hour block averages of all recorded readings, calculated after every 3 hours of operation as the average of the previous 3 operating hours. To calculate the average for each 3-hour average period, you must have at least 75 percent of the recorded readings for that period (not including startup, shutdown, malfunction, out-of-control periods, or periods of routine control device maintenance covered by a routine control device maintenance exemption as specified in §63.8420(e)).
- (4) Record the results of each inspection, calibration, and validation check.
- (5) At all times, maintain the monitoring equipment including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
- (f) For each lime or chemical feed rate measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and paragraphs (f)(1) and (2) of this section.
 - (1) Locate the measurement device in a position that provides a representative feed rate measurement.
 - (2) At least semiannually, conduct a calibration check.
 - (h) Requests for approval of alternate monitoring procedures must meet the requirements in §§63.8445(i) and 63.8(f).

§ 63.8455 *How do I demonstrate initial compliance with the emission limitations?*

- (a) You must demonstrate initial compliance with each emission limitation that applies to you according to Table 4 to this subpart.
- (b) You must establish each site-specific operating limit in Table 2 to this subpart that applies to you according to the requirements in §63.8445 and Table 3 to this subpart.
- (c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.8480(e).

§ 63.8465 *How do I monitor and collect data to demonstrate continuous compliance?*

- (a) You must monitor and collect data according to this section.
- (b) Except for periods of monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) at all times that the affected source is operating. This includes periods of startup, shutdown, malfunction, and routine control device maintenance as specified in §63.8420(e) when the affected source is operating.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities for purposes of calculating data averages. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. You must use all the valid data collected during all other periods in assessing compliance. Any averaging period for which you do not have valid monitoring data and such data are required constitutes a deviation from the monitoring requirements.

§ 63.8470 *How do I demonstrate continuous compliance with the emission limitations?*

(a) You must demonstrate continuous compliance with each emission limit and operating limit in Tables 1 and 2 to this subpart that applies to you according to the methods specified in Table 5 to this subpart.

(c) You must report each instance in which you did not meet each emission limit and each operating limit in this subpart that applies to you. This includes periods of startup, shutdown, malfunction, and routine control device maintenance. These instances are deviations from the emission limitations in this subpart. These deviations must be reported according to the requirements in §63.8485.

(e) Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1) and your OM&M plan. The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e).

(f) Deviations that occur during periods of control device maintenance covered by an approved routine control device maintenance exemption according to §63.8420(e) are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the approved routine control device maintenance exemption.

(g) You must demonstrate continuous compliance with the operating limits in Table 2 to this subpart for visible emissions (VE) from tunnel kilns equipped with DLA, DIFF, or DLS/FF by monitoring VE at each kiln stack according to the requirements in paragraphs (g)(1) through (3) of this section.

(1) Perform daily VE observations of each kiln stack according to the procedures of Method 22 of 40 CFR part 60, appendix A. You must conduct the Method 22 test while the affected source is operating under normal conditions. The duration of each Method 22 test must be at least 15 minutes.

(2) If VE are observed during any daily test conducted using Method 22 of 40 CFR part 60, appendix A, you must promptly initiate and complete corrective actions according to your OM&M plan. If no VE are observed in 30 consecutive daily Method 22 tests for any kiln stack, you may decrease the frequency of Method 22 testing from daily to weekly for that kiln stack. If VE are observed during any weekly test, you must promptly initiate and complete corrective actions according to your OM&M plan, resume Method 22 testing of that kiln stack on a daily basis, and maintain that schedule until no VE are observed in 30 consecutive daily tests, at which time you may again decrease the frequency of Method 22 testing to a weekly basis.

(3) If VE are observed during any test conducted using Method 22 of 40 CFR part 60, appendix A, you must report these deviations by following the requirements in §63.8485.

§ 63.8480 *What notifications must I submit and when?*

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(f)(4), and 63.9 (b) through (e), (g)(1), and (h) that apply to you, by the dates specified.

(c) As specified in §63.9(b)(3), if you start up your new or reconstructed affected source on or after May 16, 2003, you must submit an Initial Notification not later than 120 calendar days after you become subject to this subpart.

(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin, as required in §63.7(b)(1).

(e) If you are required to conduct a performance test as specified in Table 3 to this subpart, you must submit a Notification of Compliance Status as specified in §63.9(h) and paragraphs (e)(1) and (2) of this section.

(1) For each compliance demonstration that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test, according to §63.10(d)(2).

(2) In addition to the requirements in §63.9(h)(2)(i), you must include the information in paragraphs (e)(2)(i) and (ii) of this section in your Notification of Compliance Status.

(i) The operating limit parameter values established for each affected source with supporting documentation and a description of the procedure used to establish the values.

(f) If you request a routine control device maintenance exemption according to §63.8420(e), you must submit your request for the exemption no later than 30 days before the compliance date.

§ 63.8485 *What reports must I submit and when?*

(a) You must submit each report in Table 6 to this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 6 to this subpart and as specified in paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.8395 and ending on June 30 or December 31, and lasting at least 6 months, but less than 12 months. For example, if your compliance date is March 1, then the first semiannual reporting period would begin on March 1 and end on December 31.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31 for compliance periods ending on June 30 and December 31, respectively.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31 for compliance periods ending on June 30 and December 31, respectively.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain the information in paragraphs (c)(1) through (7) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your SSMP and OM&M plan, the compliance report must include the information specified in §63.10(d)(5)(i).

(5) A description of control device maintenance performed while the control device was offline and the kiln controlled by the control device was operating, including the information specified in paragraphs (c)(5)(i) through (iii) of this section.

(i) The date and time when the control device was shutdown and restarted.

(ii) Identification of the kiln that was operating and the number of hours that the kiln operated while the control device was offline.

(iii) A statement of whether or not the control device maintenance was included in your approved routine control device maintenance exemption developed as specified in §63.8420(e). If the control device maintenance was included in your approved routine control device maintenance exemption, then you must report the information in paragraphs (c)(5)(iii)(A) through (C) of this section.

(A) The total amount of time that the kiln controlled by the control device operated during the current semiannual compliance period and during the previous semiannual compliance period.

(B) The amount of time that each kiln controlled by the control device operated while the control device was offline for maintenance covered under the routine control device maintenance exemption during the current semiannual compliance period and during the previous semiannual compliance period.

(C) Based on the information recorded under paragraphs (c)(5)(iii)(A) and (B) of this section, compute the annual percent of kiln operating uptime during which the control device was offline for routine maintenance using Equation 1 of this section.

Where:

RM=Annual percentage of kiln uptime during which control device was offline for routine control device maintenance

DT_p =Control device downtime claimed under the routine control device maintenance exemption for the previous semiannual compliance period

DT_c =Control device downtime claimed under the routine control device maintenance exemption for the current semiannual compliance period

KU_p =Kiln uptime for the previous semiannual compliance period

KU_c =Kiln uptime for the current semiannual compliance period

(6) If there are no deviations from any emission limitations (emission limits or operating limits) that apply to you, the compliance report must contain a statement that there were no deviations from the emission limitations during the reporting period.

(7) If there were no periods during which the CMS was out-of-control as specified in your OM&M plan, the compliance report must contain a statement that there were no periods during which the CMS was out-of-control during the reporting period.

(e) For each deviation from an emission limitation (emission limit or operating limit) occurring at an affected source where you are using a CMS to comply with the emission limitations in this subpart, you must include the information in paragraphs (c)(1) through (5) and paragraphs (e)(1) through (13) of this section. This includes periods of startup, shutdown, malfunction, and routine control device maintenance.

(1) The total operating time of each affected source during the reporting period.

(2) The date and time that each malfunction started and stopped.

(3) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(4) The date, time, and duration that each CMS was out-of-control, including the pertinent information in your OM&M plan.

(5) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction; during routine control device maintenance covered in your approved routine control device maintenance exemption; or during another period.

(6) A description of corrective action taken in response to a deviation.

(7) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(8) A breakdown of the total duration of the deviations during the reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(9) A summary of the total duration of CMS downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.

(10) A brief description of the process units.

(11) A brief description of the CMS.

(12) The date of the latest CMS certification or audit.

(13) A description of any changes in CMS, processes, or control equipment since the last reporting period.

(f) If you have obtained a title V operating permit according to 40 CFR part 70 or 40 CFR part 71, you must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If you submit a compliance report according to Table 6 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), then submitting the compliance report will satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submitting a compliance report will not otherwise affect any obligation you may have to report deviations from permit requirements to the permitting authority.

§ 63.8490 *What records must I keep?*

(a) You must keep the records listed in paragraphs (a)(1) through (4) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in §63.10(b)(2)(xiv).

(2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests as required in §63.10(b)(2)(viii).

(4) Records relating to control device maintenance and documentation of your approved routine control device maintenance exemption, if you request such an exemption under §63.8420(e).

(b) You must keep the records required in Table 5 to this subpart to show continuous compliance with each emission limitation that applies to you.

(c) You must also maintain the records listed in paragraphs (c)(1) through (6) of this section.

(2) For each deviation of an operating limit parameter value, the date, time, and duration of the deviation, a brief explanation of the cause of the deviation and the corrective action taken, and whether the deviation occurred during a period of startup, shutdown, or malfunction.

(3) For each affected source, records of production rates on a fired-product basis.

(4) Records for any approved alternative monitoring or test procedures.

(5) Records of maintenance and inspections performed on the APCD.

(6) Current copies of your SSMP and OM&M plan, including any revisions, with records documenting conformance.

§ 63.8495 *In what form and for how long must I keep my records?*

- (a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).
- (b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (c) You must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You may keep the records offsite for the remaining 3 years.

§ 63.8505 *What parts of the General Provisions apply to me?*

Table 7 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

§ 63.8510 *Who implements and enforces this subpart?*

- (a) This subpart can be implemented and enforced by us, the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.
- (b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under section 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.
- (c) The authorities that cannot be delegated to State, local, or tribal agencies are as specified in paragraphs (c)(1) through (4) of this section.
 - (1) Approval of alternatives to the applicability requirements in §§63.8385 and 63.8390, the compliance date requirements in §63.8395, and the non-opacity emission limitations in §63.8405.
 - (2) Approval of major changes to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.
 - (3) Approval of major changes to monitoring under §63.8(f) and as defined in §63.90.
 - (4) Approval of major changes to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

§ 63.8515 *What definitions apply to this subpart?*

Terms used in this subpart are defined in the Clean Air Act, in §63.2, and in this section as follows:

Air pollution control device (APCD) means any equipment that reduces the quantity of a pollutant that is emitted to the air.

Bag leak detection system means an instrument that is capable of monitoring PM loadings in the exhaust of a fabric filter in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light-scattering, light-transmittance, or other effects to monitor relative PM loadings.

Brick and structural clay products (BSCP) manufacturing facility means a plant site that manufactures 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. Brick and structural clay products manufacturing facilities typically process raw clay and shale, form the processed materials into bricks or shapes, and dry and fire the bricks or shapes.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limitation (including any operating limit) or work practice standard;
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart for any affected source required to obtain such a permit; or
- (3) Fails to meet any emission limitation (including any operating limit) or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Dry lime injection fabric filter (DIFF) means an APCD that includes continuous injection of hydrated lime or other sorbent into a duct or reaction chamber followed by a fabric filter.

Dry lime scrubber/fabric filter (DLS/FF) means an APCD that includes continuous injection of humidified hydrated lime or other sorbent into a reaction chamber followed by a fabric filter. These systems typically include recirculation of some of the sorbent.

Dry limestone adsorber (DLA) means an APCD that includes a limestone storage bin, a reaction chamber that is essentially a packed tower filled with limestone, and may or may not include a peeling drum that mechanically scrapes reacted limestone to regenerate the stone for reuse.

Emission limitation means any emission limit or operating limit.

Fabric filter means an APCD used to capture PM by filtering a gas stream through filter media; also known as a baghouse.

Initial startup means:

- (1) For a new or reconstructed tunnel kiln controlled with a DLA, and for a tunnel kiln that would be considered reconstructed but for §63.8390(i)(1) or §63.8390(i)(2), the time at which the temperature in the kiln first reaches 260 °C (500 °F) and the kiln contains product; or
- (2) For a new or reconstructed tunnel kiln controlled with a DIFF, DLS/FF, or WS, the time at which the kiln first reaches a level of production that is equal to 75 percent of the kiln design capacity or 12 months after the affected source begins firing BSCP, whichever is earlier.

Kiln exhaust process stream means the portion of the exhaust from a tunnel kiln that exhausts directly to the atmosphere (or to an APCD), rather than to a sawdust dryer.

Large tunnel kiln means a tunnel kiln (existing, new, or reconstructed) with a design capacity equal to or greater than 9.07 Mg/hr (10 tph) of fired product.

Particulate matter (PM) means, for purposes of this subpart, emissions of PM that serve as a measure of total particulate emissions, as measured by Method 5 (40 CFR part 60, appendix A), and as a surrogate for metal HAP contained in the particulates including, but not limited to, antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium.

Plant site means all contiguous or adjoining property that is under common control, including properties that are separated only by a road or other public right-of-way. Common control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination thereof.

Research and development kiln means any kiln whose purpose is to conduct research and development for new processes and products and is not engaged in the manufacture of products for commercial sale, except in a de minimis manner.

Responsible official means responsible official as defined in 40 CFR 70.2.

Small tunnel kiln means a tunnel kiln (existing, new, or reconstructed) with a design capacity less than 9.07 Mg/hr (10 tph) of fired product.

Startup means the setting in operation of an affected source and starting the production process.

Tunnel kiln means any continuous kiln that is used to fire BSCP. Some tunnel kilns have two process streams, including a process stream that exhausts directly to the atmosphere or to an APCD, and a process stream in which the kiln exhaust is ducted to a sawdust dryer where it is used to dry sawdust before being emitted to the atmosphere.

Tunnel kiln design capacity means the maximum amount of brick, in Mg (tons), that a kiln is designed to produce in one year divided by the number of hours in a year (8,760 hours). If a kiln is modified to increase the capacity, the design capacity is considered to be the capacity following modifications.

Wet scrubber (WS) means an APCD that uses water, which may include caustic additives or other chemicals, as the sorbent. Wet scrubbers may use any of various design mechanisms to increase the contact between exhaust gases and the sorbent.

Table 1 to Subpart JJJJJ of Part 63—Emission Limits

As stated in §63.8405, you must meet each emission limit in the following table that applies to you.

| For each . . . | You must meet the following emission limits . . . | Or you must comply with the following . . . |
|---|--|---|
| 2. New or reconstructed large tunnel kiln, including all process streams. | a. HF emissions must not exceed 0.029 kg/Mg (0.057 lb/ton) of fired product. b. HCl emissions must not exceed | Reduce uncontrolled HF emissions by at least 90 percent. Reduce uncontrolled HCl |

0.028 kg/Mg emissions by at
 (0.056 lb/ton) of least 85 percent.
 fired product.
 c. PM emissions Not applicable.
 must not exceed
 0.060 kg/Mg (0.12
 lb/ton) of fired
 product.

Table 2 to Subpart JJJJJ of Part 63—Operating Limits

As stated in §63.8405, you must meet each operating limit in the following table that applies to you.

| For each . . . | You must . . . |
|---|--|
| 2. Kiln equipped with a DIFF or DLS/FF. | a. If you use a bag leak detection system, initiate corrective action within 1 hour of a bag leak detection system alarm and complete corrective actions in accordance with your OM&M plan; operate and maintain the fabric filter such that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month block reporting period; or maintain no VE from the DIFF or DLS/FF stack; and b. Maintain free-flowing lime in the feed hopper or silo and to the APCD at all times for continuous injection systems; maintain the feeder setting at or above the level established during the performance test for continuous injection systems. |

Table 3 to Subpart JJJJJ of Part 63—Requirements for Performance Tests

As stated in §63.8445, you must conduct each performance test in the following table that applies to you.

| For each... | You must... | Using... | According to the following requirements... |
|-------------|---|---|---|
| 1. Kiln | a. Select locations of sampling ports and the number of traverse points | Method 1 or 1A of 40 CFR Part 60, appendix A. | Sampling sites must be located at the outlet of the APCD and prior to any releases to the atmosphere for all affected sources. If you choose to meet the percent emission reduction requirements for HF or HCl, a sampling site must also be located at the APCD inlet. |
| | b. Determine velocities and volumetric flow rate. | Method 2 of 40 CFR Part 60, appendix A. | You may use Method 2A, 2C, 2D, 2F, or 2G of 40 |

| For each... | You must... | Using... | According to the following requirements... |
|---|--|---|--|
| | | | CFR part 60, appendix A, as appropriate, as an alternative to using Method 2 of 40 CFR part 60, appendix A. |
| | C. Conduct gas molecular weight analysis. | Method 3 of 40 CFR Part 60, appendix A. | You may use Method 3A or 3B of 40 CFR Part 60, appendix A, as appropriate, as an alternative to using Method 3 of 40 CFR part 60, appendix A. |
| | d. Measure moisture content of the stack gas. | Method 4 of 40 CFR Part 60, appendix A. | |
| | e. Measure HF and HCl emissions. | Method 26A of 40 CFR Part 60, appendix A; or | Conduct the test while operating at the maximum production level. You may use Method 26 of 40 CFR part 60, appendix A, as an alternative to using Method 26A of 40 CFR part 60, appendix A, when no acid PM (e.g., HF or HCl dissolved in water droplets emitted by sources controlled by a WS) is present. |
| | | Method 320 of 40 CFR Part 60, appendix A. | Conduct the test while operating at the maximum production level. When using Method 320 of 40 CFR part 63, appendix A, you must follow the analyte spiking procedures of section 13 of Method 320 of 40 CFR part 63, appendix A, unless you can demonstrate that the complete spiking procedure has been conducted at a similar source. |
| f. Measure PM emissions. | Method 5 of 40 CFR Part 60, appendix A. | Conduct the test while operating at the maximum production level. | |
| 4. Kiln equipped with a DIFF or DLS/FF. | Establish the operating limit for the lime feeder setting. | Data from the lime feeder during the performance test. | For continuous lime injection systems, you must ensure that lime in the feed hopper or silo and to the APCD is free-flowing at all times during the performance test and record the feeder setting for the three test runs. If the feed rate setting varies during the three test runs, determine and record the average feed rate from the three test runs. |

Table 4 to Subpart JJJJJ of Part 63—Initial Compliance with Emission Limitations

As stated in §63.8455, you must demonstrate initial compliance with each emission limitation that applies to you according to the following table:

| For each... | For the following emission limitation... | You have demonstrated initial compliance if... |
|--|---|---|
| <p>2. New or reconstructed large tunnel kiln, including all process streams.</p> | <p>a. HF emissions must not exceed 0.029 kg/Mg (0.057 lb/ton) of fired product; or uncontrolled HF emissions must be reduced by at least 90 percent; and</p> | <p>i. The HF emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, appendix A over the period of the initial performance test, according to the calculations in §63.8445(g)(1), do not exceed 0.029 kg/Mg (0.057 lb/ton); or uncontrolled HF emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, appendix A over the period of the initial performance test are reduced by at least 90 percent, according to the calculations in §63.8445(g)(2); and ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the 3-hour performance test during which HF emissions did not exceed 0.029 kg/Mg (0.057 lb/ton) or uncontrolled HF emissions were reduced by at least 90 percent.</p> |
| | <p>b. HCl emissions must not exceed 0.028 kg/Mg (0.056 lb/ton) of fired product; or uncontrolled HCl emission must be reduced by at least 85 percent; and</p> | <p>i. The HCl emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, appendix A over the period of the initial performance test, according to the calculations in §63.8445(g)(1), do not exceed 0.028 kg/Mg (0.056 lb/ton); or uncontrolled HCl emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, appendix A over the period of the initial performance test are reduced by at least 85 percent, according to the calculations in §63.8445(g)(2); and ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the 3-hour performance test during which HCl emissions did not exceed 0.028 kg/Mg (0.056 lb/ton) or uncontrolled HCl emissions were reduced by at least 85 percent.</p> |
| | <p>c. PM emissions must not exceed 0.060 kg/Mg (0.12 lb/ton) of fired product.</p> | <p>i. The PM emissions measured using Method 5 of 40 CFR part 0, appendix A, over the period of the initial performance test, according to the calculations in §63.8445(g)(1), do not exceed 0.060 kg/Mg (0.12 lb/ton); and ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the 3-hour performance test during which PM emissions did not exceed 0.060 kg/Mg (0.12 lb/ton).</p> |

Table 5 to Subpart JJJJJ of Part 63—Continuous Compliance With Emission Limits and Operating Limits

As stated in §63.8470, you must demonstrate continuous compliance with each emission limit and operating limit that applies to you according to the following table:

| For each... | For the following emission limit and operating limits... | You must demonstrate continuous compliance by... |
|---|--|---|
| 2. Kiln equipped with a DIFF or DLS/FF. | Each emission limit in Table 1 to this subpart and each operating limit in Item 2 of Table 2 to this subpart for kilns equipped with DIFF or DLS/FF. | i. If you use a bag leak detection system, initiating corrective action within 1 hour of a bag leak detection system alarm and completing corrective actions in accordance with your OM&M plan; operating and maintaining the fabric filter such that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month block reporting period; in calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted; if corrective action is required, each alarm is counted as a minimum of 1 hour; if you take longer than 1 hour to initiate corrective action, the alarm time is counted as the actual amount of time taken by you to initiate corrective action; or performing VE observations of the DIFF or DLS/FF stack at the frequency specified in §63.8470(g) using Method 22 of 40 CFR part 60, appendix A; maintaining no VE from the DIFF or DLS/FF stack; and ii. Verifying that lime is free-flowing via a load cell, carrier gas/lime flow indicator, carrier gas pressure drop measurement system, or other system; recording all monitor or sensor output, and if lime is found not to be free flowing, promptly initiating and completing corrective actions in accordance with your OM&M plan; recording the feeder setting once during each shift of operation to verify that the feeder setting is being maintained at or above the level established during the performance test. |

Table 6 to Subpart JJJJJ of Part 63—Requirements for Reports

As stated in §63.8485, you must submit each report that applies to you according to the following table:

| You must submit . . . | The report must contain . . . | You must submit the report . . . |
|-----------------------------|--|--|
| 1. A compliance report..... | a. If there are no deviations from any emission limitations (emission limits, operating limits) that apply to you, a statement that there were no deviations from the emission limitations during the reporting period. If there were no periods during which the CMS was out-of-control as specified in your OM&M plan, a statement that there were no periods during which the CMS was out-of-control during the reporting period. b. If you have a deviation from any emission limitation (emission limit, operating limit) during the reporting period, the report must contain the information in § 63.8485(d) or (e). | Semiannually according to the requirements in § 63.8485(b). Semiannually according to the requirements in § 63.8485(b). |

- If there were periods during which the CMS was out-of-control, as specified in your OM&M plan, the report must contain the information in § 63.8485(e).
- c. If you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in § 63.10(d)(5)(i).
2. An immediate startup, shutdown, and malfunction report if you took actions during a startup, shutdown, or malfunction during the reporting period that are not consistent with your SSMP.
- a. Actions taken for the event according to the requirements in § 63.10(d)(5)(ii). By fax or telephone within 2 working days after starting actions inconsistent with the plan.
- b. The information in § 63.10(d)(5)(ii). By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority.

Table 7 to Subpart JJJJJ of Part 63—Applicability of General Provisions to Subpart JJJJJ

As stated in §63.8505, you must comply with the General Provisions in §§63.1 through 63.15 that apply to you according to the following table:

| Citation | Subject | Brief description | Applies to subpart JJJJJ |
|------------------|--|--|--------------------------|
| § 63.1 | Applicability | Initial applicability determination; applicability after standard established; permit requirements; extensions, notifications. | Yes. |
| § 63.2 | Definitions | Definitions for part 63 standards. | Yes. |
| § 63.3 | Units and Abbreviations. | Units and abbreviations for part 63 standards. | Yes. |
| § 63.4 | Prohibited Activities. | Compliance date; circumvention; severability. | Yes. |
| § 63.5 | Construction/ Reconstruction. | Applicability; applications; approvals. | Yes. |
| § 63.6(a) | Applicability | General Provisions (GP) apply unless compliance extension; GP apply to area sources that become major. | Yes. |
| § 63.6(b)(1)-(4) | Compliance Dates for New and Reconstructed sources. | Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for section 112(f). | Yes. |
| § 63.6(b)(5) | Notification | Must notify if commenced construction or reconstruction after proposal. | Yes. |
| § 63.6(b)(6) | [Reserved]. | | |
| § 63.6(b)(7) | Compliance Dates for New and Reconstructed area Sources That Become Major. | Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were area sources. | Yes. |
| Citation | Subject | Brief description | Applies to subpart JJJJJ |
| § 63.6(c)(1)-(2) | Compliance Dates for Existing Sources. | Comply according to date in subpart, which must be no later than 3 years after effective date; for section 112(f) standards, comply within 90 days of effective date unless compliance extension. | Yes. |
| § 63.6(c)(3)-(4) | [Reserved]. | | |
| § 63.6(c)(5) | Compliance Dates for Existing area Sources That Become Major. | Area sources that become major must comply with major source standards by date indicated in subpart or by equivalent time period (for example, 3 years). | Yes. |
| § 63.6(d) | [Reserved]. | | |
| § 63.6(e)(1)-(2) | Operation & Maintenance. | Operate to minimize emissions at all times; correct malfunctions as soon as practicable; requirements independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met. | Yes. |

| | | | | |
|-----------------------|---|---|---|--------------------------|
| § 63.6(e)(3)..... | Startup, Shutdown, and Malfunction Plan (SSMP). | Requirement for startup, shutdown, and malfunction (SSM) and SSMP; content of SSMP. | Yes. | |
| § 63.6(f)(1)..... | Compliance Except During SSM. | You must comply with emission standards at all times except during SSM. | Yes. | |
| § 63.6(f)(2)-(3)..... | Methods for Determining Compliance. | Compliance based on performance test, operation and maintenance plans, records, inspection. | Yes. | |
| § 63.6(g)..... | Alternative Standard.. | Procedures for getting an alternative standard. | Yes. | |
| § 63.6(h)..... | Opacity/VE Standards.. | Requirements for opacity and VE standards. | No, not applicable. | |
| § 63.6(i)..... | Compliance Extension.. | Procedures and criteria for Administrator to grant compliance extension. | Yes. | |
| § 63.6(j)..... | Presidential Compliance Exemption. | President may exempt source category. | Yes. | |
| § 63.7(a)(1)-(2)..... | Performance Test Dates | Dates for conducting initial performance testing and other compliance demonstrations; must conduct 180 days after first subject to rule. | Yes. | |
| § 63.7(a)(3)..... | Section 114 Authority. | Administrator may require a performance test under CAA section 114 at any time. | Yes. | |
| § 63.7(b)(1)..... | Notification of Performance Test. | Must notify Administrator 60 days before the test. | Yes. | |
| § 63.7(b)(2)..... | Notification of Rescheduling. | Must notify Administrator 5 days before scheduled date of rescheduled date. | Yes. | |
| § 63.7(c)..... | Quality Assurance(QA)/ Test Plan. | Requirements; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing. | Yes. | |
| § 63.7(d)..... | Testing Facilities.... | Requirements for testing facilities. | Yes. | |
| § 63.7(e)(1)..... | Conditions for Conducting Performance Tests. | Performance tests must be conducted under representative conditions. Cannot conduct performance tests during SSM; not a violation to exceed standard during SSM. | No, § 63.8445 specifies requirements. Yes. | |
| § 63.7(e)(2)-(3)..... | Conditions for Conducting Performance Tests. | Must conduct according to subpart and EPA test methods unless Administrator approves alternative; must have at least three test runs of at least 1 hour each; compliance is based on arithmetic mean of three runs; conditions when data from an additional test run can be used. | Yes. | |
| § 63.7(f)..... | Alternative Test Method. | Procedures by which Administrator can grant approval to use an alternative test method. | Yes. | |
| | Citation | Subject | Brief description | Applies to subpart JJJJJ |
| § 63.7(g)..... | Performance Test Data Analysis. | Must include raw data in performance test report; must submit performance test data 60 days after end of test with the notification of compliance status. | Yes. | |
| § 63.7(h)..... | Waiver of Tests..... | Procedures for Administrator to waive performance test. | Yes. | |
| § 63.8(a)(1)..... | Applicability of Monitoring Requirements. | Subject to all monitoring requirements in subpart. | Yes. | |
| § 63.8(a)(2)..... | Performance Specifications. | Performance Specifications in appendix B of 40 CFR part 60 apply. | Yes. | |
| § 63.8(a)(3)..... | [Reserved]..... | | | |
| § 63.8(a)(4)..... | Monitoring with Flares | Requirements for flares in § 63.11 apply. | No, not applicable. | |
| § 63.8(b)(1)..... | Monitoring..... | Must conduct monitoring according to standard unless Administrator approves alternative. | Yes. | |
| § 63.8(b)(2)-(3)..... | Multiple Effluents and Multiple Monitoring Systems. | Specific requirements for installing and reporting on monitoring systems. | Yes. | |
| § 63.8(c)(1)..... | Monitoring System Operation and Maintenance. | Maintenance consistent with good air pollution control practices. | Yes. | |
| § 63.8(c)(1)(i)..... | Routine and Predictable SSM. | Reporting requirements for SSM when action is described in SSMP. | Yes. | |

| | | | |
|------------------------------------|---|--|--|
| § 63.8(c)(1)(ii)..... | SSM not in SSMP..... | Reporting requirements for SSM when action is not described in SSMP. | Yes. |
| § 63.8(c)(1)(iii)..... | Compliance with Operation and Maintenance Requirements. | How Administrator determines if source complying with operation and maintenance requirements. | Yes. |
| § 63.8(c)(2)-(3)..... | Monitoring System Installation. | Must install to get representative emission and parameter measurements. | Yes. |
| § 63.8(c)(4)..... | CMS Requirements..... | Requirements for CMS..... | No, §§ 63.8425 and 63.8465 specify requirements. |
| § 63.8(c)(5)..... | Continuous Opacity Monitoring System (COMS) Minimum Procedures. | COMS minimum procedures..... | No, not applicable. |
| § 63.8(c)(6)..... | CMS Requirements..... | Zero and high level calibration check requirements. | No, § 63.8425 specifies requirements. |
| § 63.8(c)(7)-(8)..... | CMS Requirements..... | Out-of-control periods..... | No, § 63.8425 specifies requirements. |
| § 63.8(d)..... | CMS Quality Control... | Requirements for CMS quality control. | No, § 63.8425 specifies requirements. |
| § 63.8(e)..... | CMS Performance Evaluation. | Requirements for CMS performance evaluation. | No, § 63.8425 specifies requirements. |
| § 63.8(f)(1)-(5)..... | Alternative Monitoring Method. | Procedures for Administrator to approve alternative monitoring. | Yes. |
| § 63.8(f)(6)..... | Alternative to Relative Accuracy Test. | Procedures for Administrator to approve alternative relative accuracy test for continuous emissions monitoring systems (CEMS). | No, not applicable. |
| § 63.8(g)..... | Data Reduction..... | COMS and CEMS data reduction requirements. | No, not applicable. |
| § 63.9(a)..... | Notification Requirements. | Applicability; State delegation. | Yes. |
| § 63.9(b)..... | Initial Notifications. | Requirements for initial notifications. | Yes. |
| § 63.9(c)..... | Request for Compliance Extension. | Can request if cannot comply by date or if installed BACT/LAER. | Yes. |
| § 63.9(d)..... | Notification of Special Compliance Requirements for New Source. | For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date. | Yes. |
| § 63.9(e)..... | Notification of Performance Test. | Notify Administrator 60 days prior. | Yes. |
| § 63.9(f)..... | Notification of VE/Opacity Test. | Notify Administrator 30 days prior. | No, not applicable. |
| § 63.9(g)(1)..... | Additional Notifications When Using CMS. | Notification of performance evaluation. | Yes. |
| | | | Applies to subpart JJJJJ |
| ----- | | | ----- |
| § 63.9(g)(2)-(3)..... | Additional Notifications When Using CMS. | Notification of COMS data use; notification that relative accuracy alternative criterion were exceeded. | No, not applicable. |
| § 63.9(h)..... | Notification of Compliance Status. | Contents; submittal requirements. | Yes. |
| § 63.9(i)..... | Adjustment of Submittal Deadlines. | Procedures for Administrator to approve change in when notifications must be submitted. | Yes. |
| § 63.9(j)..... | Change in Previous Information. | Must submit within 15 days after the change. | Yes. |
| § 63.10(a)..... | Recordkeeping/Reporting. | Applicability; general information. | Yes. |
| § 63.10(b)(1)..... | General Recordkeeping Requirements. | General requirements..... | Yes. |
| § 63.10(b)(2)(i)-(v)..... | Records Related to SSM | Requirements for SSM records.. | Yes. |
| § 63.10(b)(2)(vi)-(xii) and (xiv). | CMS Records..... | Records when CMS is malfunctioning, inoperative or out-of-control. | Yes. |
| § 63.10(b)(2)(xiii)..... | Records..... | Records when using alternative to relative accuracy test. | No, not applicable. |
| § 63.10(b)(3)..... | Records..... | Applicability Determinations.. | Yes. |
| § 63.10(c)(1)-(15)..... | Records..... | Additional records for CMS.... | No, §§ 63.8425 and 63.8490 specify requirements. |
| § 63.10(d)(1) and (2)..... | General Reporting Requirements. | Requirements for and reporting; performance test results reporting. | Yes. |
| § 63.10(d)(3)..... | Reporting Opacity or VE Observations. | Requirements for reporting opacity and VE. | No, not applicable. |
| § 63.10(d)(4)..... | Progress Reports..... | Must submit progress reports | Yes. |

| | | | |
|------------------------|-------------------------------------|--|--|
| | | on schedule if under compliance extension. | |
| § 63.10(d)(5)..... | SSM Reports..... | Contents and submission..... | Yes. |
| § 63.10(e)(1)-(3)..... | Additional CMS Reports | Requirements for CMS reporting | No, §§ 63.8425 and 63.8485 specify requirements. |
| § 63.10(e)(4)..... | Reporting COMS data... | Requirements for reporting COMS data with performance test data. | No, not applicable. |
| § 63.10(f)..... | Waiver for Recordkeeping/Reporting. | Procedures for Administrator to waive. | Yes. |
| § 63.11..... | Flares..... | Requirement for flares..... | No, not applicable. |
| § 63.12..... | Delegation..... | State authority to enforce standards. | Yes. |
| § 63.13..... | Addresses..... | Addresses for reports, notifications, requests. | Yes. |
| § 63.14..... | Incorporation by Reference. | Materials incorporated by reference. | Yes. |
| § 63.15..... | Availability of Information. | Information availability; confidential information. | Yes. |

D.3.14 One Time Deadlines Relating to NESHAP Subpart JJJJJ

- (a) The Permittee must conduct performance tests for the dry injection fabric filter (DIFF), CD01, within 180 calendar days after startup. A notification of intent to conduct a performance test at least sixty (60) calendar days before the performance test is scheduled to begin.
- (b) An initial notification shall be submitted for the dry injection fabric filter (DIFF), CD01, within 120 days of startup.
- (c) The Permittee shall submit the Notification of Compliance Status, including the performance test results, before the close of business on the sixtieth (60th) calendar day following the completion of the performance test.

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

And

VIGO COUNTY AIR POLLUTION CONTROL

PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Boral Bricks Terre Haute Plant
Source Address: 5601E. Price Road, Terre Haute, Indiana 47802
Mailing Address: PO Box 1178 Columbus, GA 31902
Part 70 Permit No.: T167-23205-00139

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

MC 61-53 IGCN 1003

Indianapolis, Indiana 46204-2251

Phone: 317-233-0178 Fax: 317-233-6865

And

VIGO COUNTY AIR POLLUTION CONTROL

103 South 3rd Street

Terre Haute, Indiana 47807

Phone: 812-462-3433 Fax.: 812-462-3447

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Boral Bricks Terre Haute Plant
Source Address: 5601 E. Price Road, Terre Haute, Indiana 47802
Mailing Address: PO Box 1178 Columbus, GA 31902
Part 70 Permit No.: T167-23205-00139

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) |
| <input checked="" type="checkbox"/> The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (IDEM 1-800-451-6027 or 317-233-0178, ask for Compliance Section VCAPC 812-462-3433); and |
| <input checked="" type="checkbox"/> The Permittee must submit notice in writing or by facsimile within two (2) working days (IDEM Facsimile Number: 317-233-6865 VCAPC Facsimile Number: 812-462-3447), 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 Describe: |
| 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
And
VIGO COUNTY AIR POLLUTION CONTROL**

Part 70 Quarterly Report

Source Name: Boral Bricks Terre Haute Plant
Source Address: 5601 E. Price Road, Terre Haute, Indiana 47802
Mailing Address: PO Box 1178 Columbus, GA 31902
Part 70 Permit No.: T167-23205-00139
Facility: Clay/shale processing
Parameter: Amount of clay/shale processed
Limit: Less than 500,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month

YEAR: _____

| Month | Amount of clay/shale processed (tons) | Amount of clay/shale processed (tons) | Amount of clay/shale processed (tons) |
|-------|---------------------------------------|---------------------------------------|---------------------------------------|
| | This Month | Previous 11 Months | 12 Month Total |
| | | | |
| | | | |
| | | | |

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

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

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
And
VIGO COUNTY AIR POLLUTION CONTROL**

Part 70 Quarterly Report

Source Name: Boral Bricks Terre Haute Plant
Source Address: 5601 E. Price Road, Terre Haute, Indiana 47802
Mailing Address: PO Box 1178 Columbus, GA 31902
Part 70 Permit No.: T167-23205-00139
Facility: Tunnel Kiln (EU02)
Parameter: Amount of fired product
Limit: Less than 227,500 tons per twelve (12) consecutive month period with compliance determined at the end of each month

YEAR: _____

| Month | Amount of fired product (tons) | Amount of fired product (tons) | Amount of fired product (tons) |
|-------|--------------------------------|--------------------------------|--------------------------------|
| | This Month | Previous 11 Months | 12 Month Total |
| | | | |
| | | | |
| | | | |

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

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
And
VIGO COUNTY AIR POLLUTION CONTROL**

Part 70 Quarterly Report

Source Name: Boral Bricks Terre Haute Plant
Source Address: 5601 E. Price Road, Terre Haute, Indiana 47802
Mailing Address: PO Box 1178 Columbus, GA 31902
Part 70 Permit No.: T167-23205-00139
Facility: Tunnel Kiln (EU02)
Parameter: Time DIFF bypassed
Limit: Less than 123 hours of DIFF bypass per twelve (12) consecutive month period with compliance determined at the end of each month

YEAR: _____

| Month | Hours DIFF bypassed | Hours DIFF bypassed | Hours DIFF bypassed |
|-------|---------------------|---------------------|---------------------|
| | This Month | Previous 11 Months | 12 Month Total |
| | | | |
| | | | |
| | | | |

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

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION
 And
 VIGO COUNTY AIR POLLUTION CONTROL**

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

Source Name: Boral Bricks Terre Haute Plant
 Source Address: 5601 E. Price Road, Terre Haute, Indiana 47802
 Mailing Address: PO Box 1178 Columbus, GA 31902
 Part 70 Permit No.: T167-23205-00139

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. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p> | |
| <input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD. | |
| <input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD | |
| Permit Requirement (specify permit condition #) | |
| Date of Deviation: | Duration of Deviation: |
| Number of Deviations: | |
| Probable Cause of Deviation: | |
| Response Steps Taken: | |
| Permit Requirement (specify permit condition #) | |
| Date of Deviation: | Duration of Deviation: |
| Number of Deviations: | |
| Probable Cause of Deviation: | |
| Response Steps Taken: | |

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

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
And
VIGO COUNTY AIR POLLUTION CONTROL**

**PART 70 OPERATING PERMIT
SEMI-ANNUAL NATURAL GAS CERTIFICATION FOR THE KILN (EU02)**

Source Name: Boral Bricks Terre Haute Plant
Source Address: 5601 E. Price Road, Terre Haute, Indiana 47802
Mailing Address: PO Box 1178 Columbus, GA 31902
Part 70 Permit No.: T167-23205-00139

| |
|---|
| <input type="checkbox"/> Natural Gas Only <input type="checkbox"/> Alternate Fuel burned |
| From _____ To: _____ |

| |
|---|
| 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: |

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is required for this report.

Mail to: Permit Administration & Development Section
Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Boral Brick Terre Haute Plant
5601 E. Price Road,
Terre Haute, Indiana 47802

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of _____ for _____.
(Title) (Company Name)
3. By virtue of my position with _____, I have personal knowledge of the
(Company Name)
representations contained in this affidavit and am authorized to make these representations on behalf of
_____.
(Company Name)
4. I hereby certify that Boral Brick Terre Haute Plant, 5601 E. Price Road, Terre Haute, Indiana 47802, completed construction of the brick manufacturing source on _____ in conformity with the requirements and intent of the Construction Permit application received by the Office of Air Quality on June 5, 2006, and as permitted pursuant to **Operation Permit No. T167-23205-00139, Plant ID No. 167-00139** issued on _____.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature

Date

STATE OF INDIANA

COUNTY OF _____

Subscribed and sworn to me, a notary public in and for _____ County and State of Indiana on
this _____ day of _____, 20 _____.

My Commission expires: _____.

Signature

Name (typed or printed)

Supplement to Construction and Initial Operating Permit Application

FUGITIVE DUST CONTROL PLAN

**BORAL BRICKS, INC.
TERRE HAUTE BRICK MANUFACTURING PLANT**

Submitted to:

**Vigo County Air Pollution Control
103 South Third Street
Terre Haute, Indiana 47807**

Prepared by:

**The Benham Companies, Inc.
One West Third Street, Suite 100
Tulsa, Oklahoma 74103
(918) 492-1600**

February 15, 2007

**FUGITIVE DUST CONTROL PLAN
BORAL BRICKS, INC.
TERRE HAUTE BRICK MANUFACTURING PLANT**

Boral Bricks, Inc. (Boral) has prepared a Fugitive Dust Control Plan (Plan) in accordance with 326 IAC 6-5. This Plan identifies sources of potential fugitive dust emissions and identifies the method of control to be used to control fugitive dust. The control methods have been taken from the list of acceptable measures in 326 ISC 6-5 and include the type of material, suppressant, and frequency of application, where applicable. However, for the most part the measures being employed are part of the design of the process, or equipment associated with the process, that provides for the control achieved.

The following documents are attached which make up the Plan:

- **Table of Fugitive Dust Emission Sources**

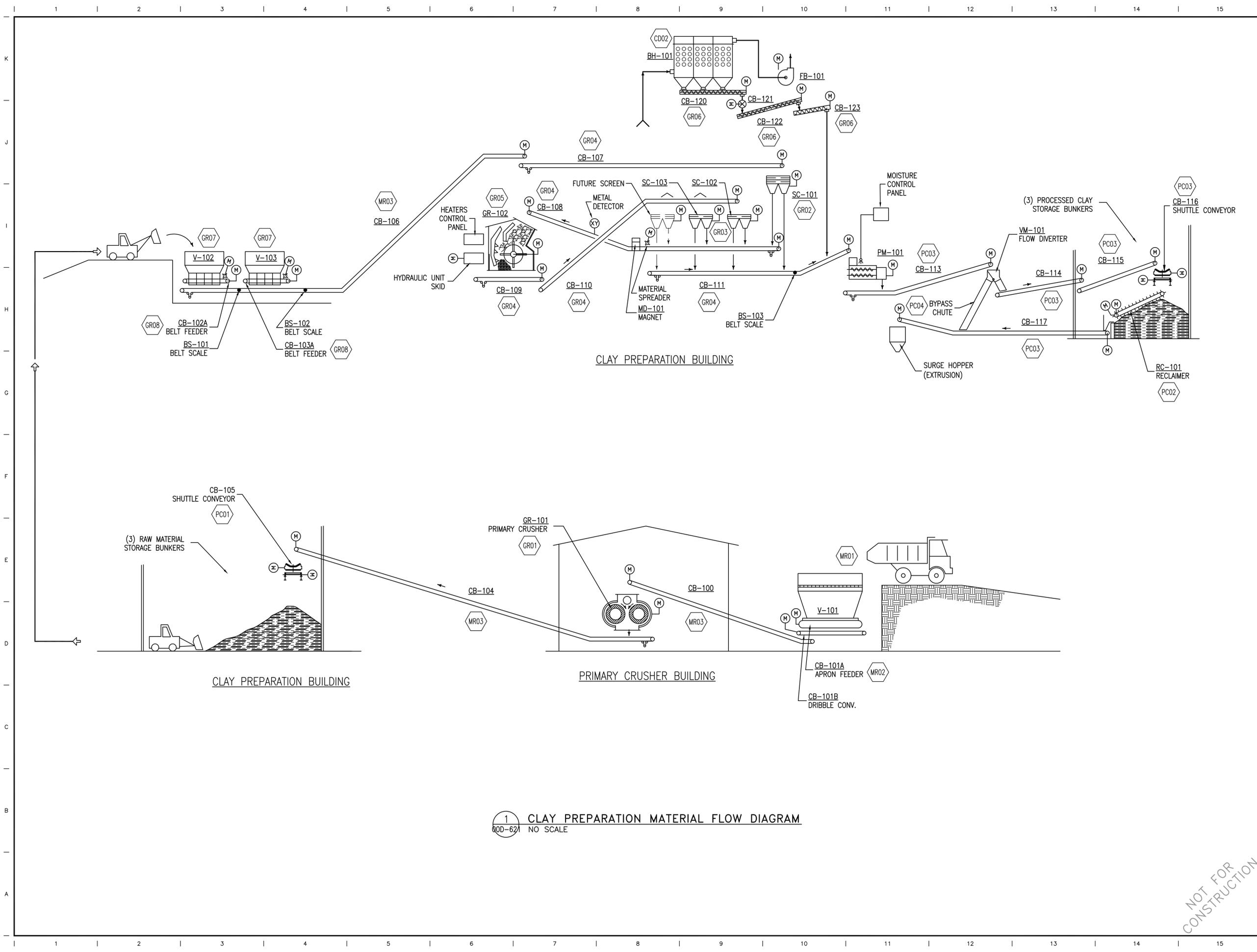
Table identifies sources of fugitive dust and the control measures used for each. Monitoring and record keeping procedures are also identified for each.

- **Table of Plant Production Data**

Table lists all emission points and quantity of material handled through each on both a short and long term basis.

- **Facility Maps of Fugitive Dust Sources**

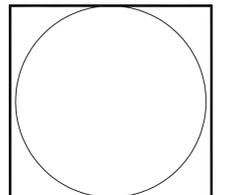
Facility site maps and flow diagram showing the location of all emission sources, both fugitive and non-fugitive. Roads, both paved and unpaved, parking lots, access areas, storage piles and aggregate handling equipment are also identified.



1 CLAY PREPARATION MATERIAL FLOW DIAGRAM
 000-621 NO SCALE

| | | | |
|-----|----------|----------------------------|------|
| NO. | DATE | ISSUE FOR PERMIT | BY |
| A | 01/16/07 | | GM |
| | | DESCRIPTION OF REVISION OR | APPD |

BENHAM
 THE BENHAM COMPANIES, LLC
 9400 N BROADWAY
 OKLAHOMA CITY, OKLAHOMA 73114
 405.478.5353
 www.benham.com



BORAL TERRE HAUTE - 070
 Terre Haute, Indiana
 CLAY PREP. BLDG -
 MATERIAL FLOW DIAGRAM

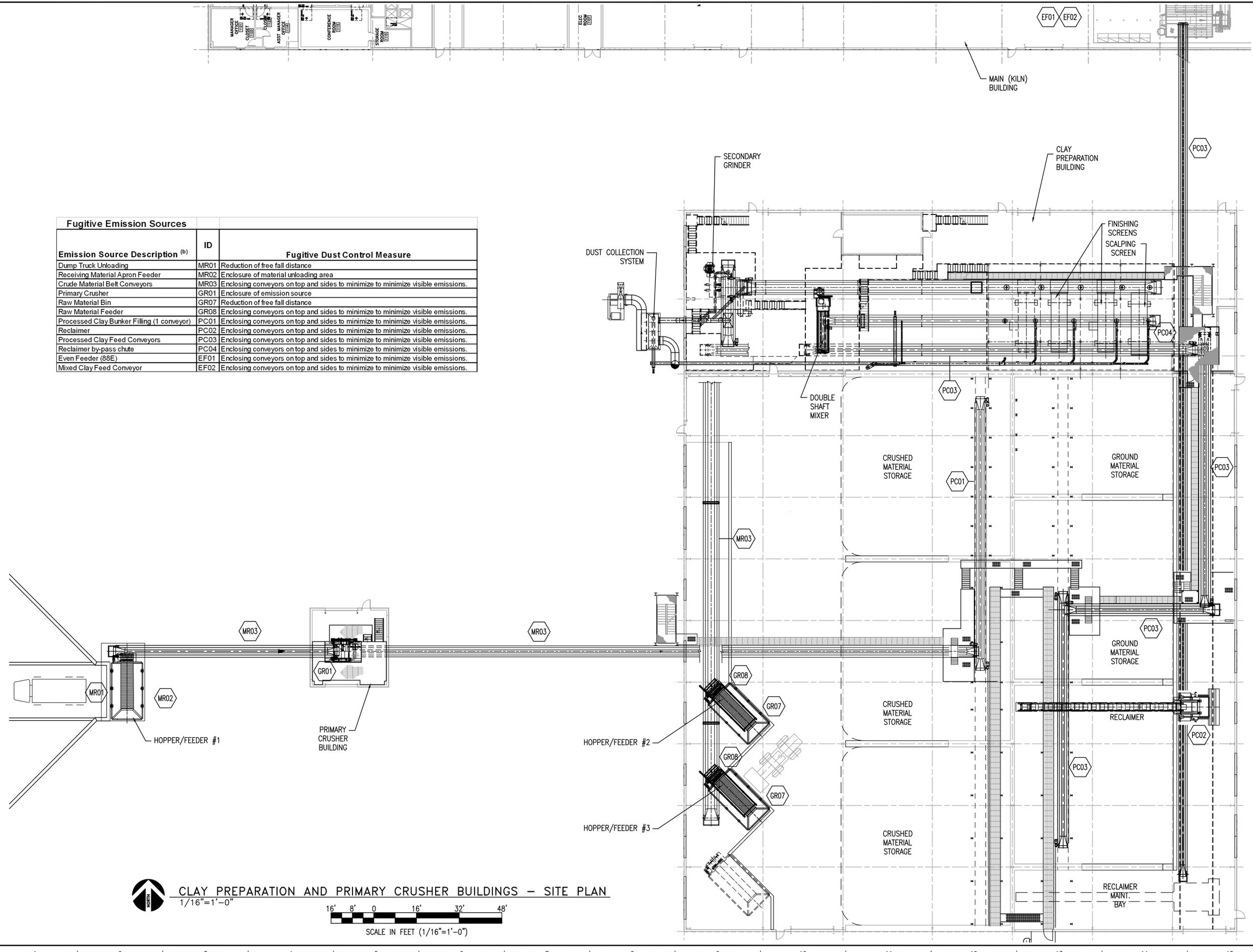
| | |
|-------------|----|
| DESIGNED BY | GM |
| DRAWN BY | GM |
| APPROVED BY | RM |

| | |
|----------------|------------|
| DATE | 10/19/06 |
| SCALE | NONE |
| PROJECT NUMBER | 2100612200 |
| SHEET | 00D-621P |
| REV | A |

NOT FOR CONSTRUCTION

Filename: P:\OKC\B00\2100612200\20_CAD\W\Permit\07000M-101P.dwg Saved: 1/17/2007 4:56:13 PM By: mart1392
 Xrefs: 070006-B500.dwg P:\OKC\B00\2100612200\20_CAD\W\Permit\07002A-MP02.dwg P:\OKC\B00\2100612200\20_CAD\W\Permit\07000M-0P01.dwg 07002S-CP01.dwg 07002A-FP01.dwg 07001Q-FP01.dwg 07001S-CP01.dwg 07001A-FP01.dwg

| Fugitive Emission Sources | | |
|--|------|---|
| Emission Source Description ^(b) | ID | Fugitive Dust Control Measure |
| Dump Truck Unloading | MR01 | Reduction of free fall distance |
| Receiving Material Apron Feeder | MR02 | Enclosure of material unloading area |
| Crude Material Belt Conveyors | MR03 | Enclosing conveyors on top and sides to minimize to minimize visible emissions. |
| Primary Crusher | GR01 | Enclosure of emission source |
| Raw Material Bin | GR07 | Reduction of free fall distance |
| Raw Material Feeder | GR08 | Enclosing conveyors on top and sides to minimize to minimize visible emissions. |
| Processed Clay Bunker Filling (1 conveyor) | PC01 | Enclosing conveyors on top and sides to minimize to minimize visible emissions. |
| Reclaimer | PC02 | Enclosing conveyors on top and sides to minimize to minimize visible emissions. |
| Processed Clay Feed Conveyors | PC03 | Enclosing conveyors on top and sides to minimize to minimize visible emissions. |
| Reclaimer by-pass chute | PC04 | Enclosing conveyors on top and sides to minimize to minimize visible emissions. |
| Even Feeder (88E) | EF01 | Enclosing conveyors on top and sides to minimize to minimize visible emissions. |
| Mixed Clay Feed Conveyor | EF02 | Enclosing conveyors on top and sides to minimize to minimize visible emissions. |



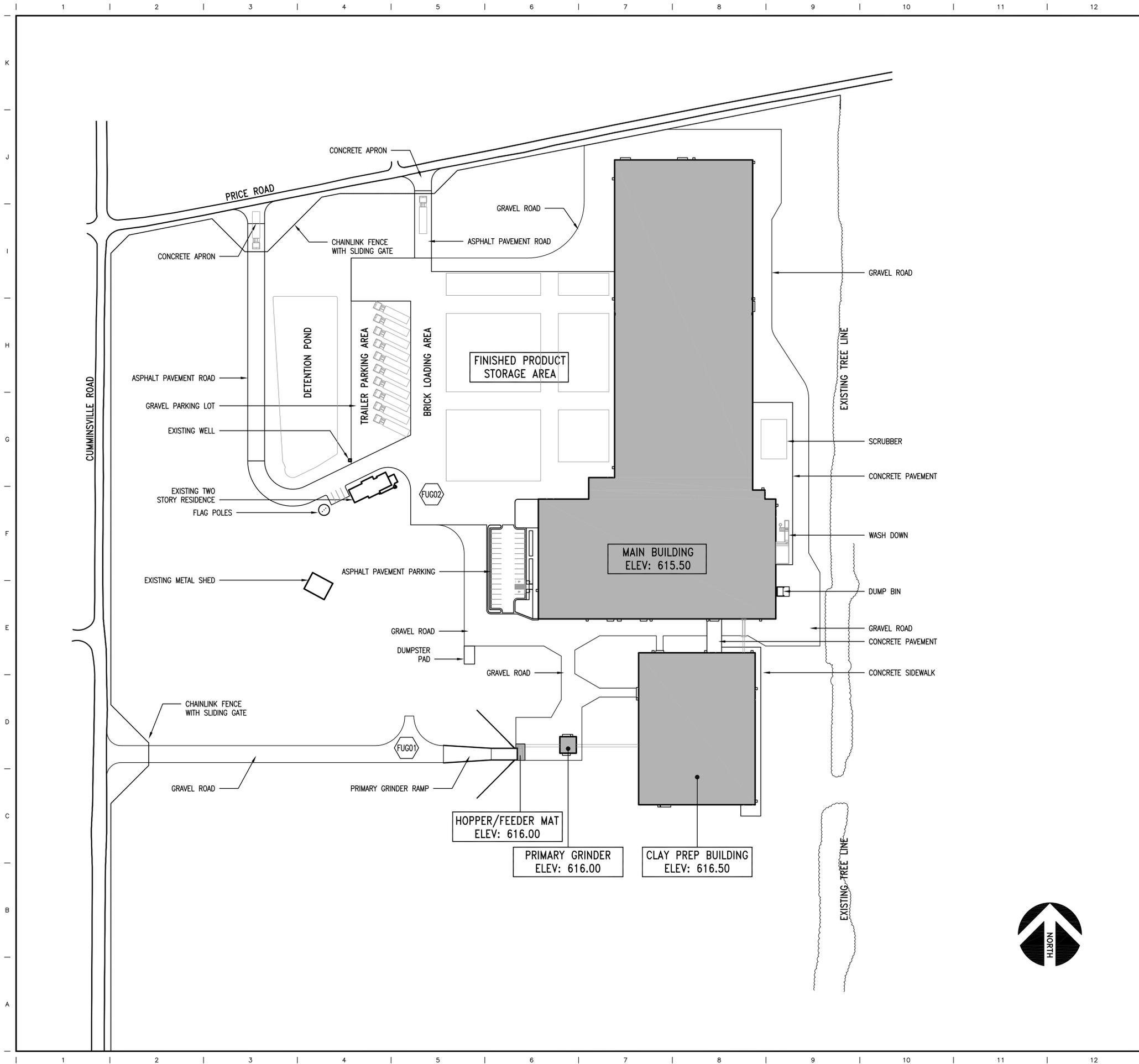
CLAY PREPARATION AND PRIMARY CRUSHER BUILDINGS - SITE PLAN
 1/16"=1'-0"
 SCALE IN FEET (1/16"=1'-0")

| NO. | DATE | ISSUE FOR PERMIT | DESCRIPTION OF REVISION OR ISSUE | BY | GM | APP'D |
|-----|----------|------------------|----------------------------------|----|----|-------|
| A | 01/16/07 | | | | | |

BENHAM
 THE BENHAM COMPANIES, LLC
 9400 N BROADWAY
 OKLAHOMA CITY, OKLAHOMA 73114
 405.478.5353
 www.benham.com

BORAL
 BORAL TERRE HAUTE - 070
 Terre Haute, Indiana
 CLAY PREP. MAIN & PRIMARY CRUSHER
 BUILDINGS - PROCESS SITE PLAN

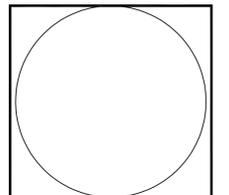
| | |
|----------------|------------|
| DESIGNED BY | GM |
| DRAWN BY | GM |
| APPROVED BY | RM |
| DATE | 10/19/06 |
| SCALE | AS NOTED |
| PROJECT NUMBER | 2100612200 |
| SHEET | 00M-101P |
| REV | A |



GENERAL NOTES
 1. THE ARCHITECTURAL SITE PLAN IS FOR REFERENCE ONLY. REFER TO OTHER DISCIPLINES FOR EXTENTS OF CONSTRUCTION ASSOCIATED WITH THE SITE.

| NO. | DATE | DESCRIPTION OF REVISION OR ISSUE | BY | APP'D |
|-----|----------|----------------------------------|----|-------|
| B | 12/15/06 | INTERIOR FINISHES BID PACKAGE | RM | |
| A | 11/06/06 | ISSUE FOR PERMIT | RM | |

BENHAM
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 9400 N BROADWAY
 OKLAHOMA CITY, OKLAHOMA 73114
 405.478.5353
 www.benham.com



BORAL
 BORAL TERRE HAUTE - 070
 Terre Haute, Indiana
 ARCH SITE PLAN

| | |
|-------------|----|
| DESIGNED BY | MN |
| DRAWN BY | MN |
| APPROVED BY | DH |

| | |
|----------------|------------|
| DATE | 10/19/06 |
| SCALE | AS NOTED |
| PROJECT NUMBER | 2100612200 |
| SHEET | 00A-004 |
| REV | B |

**Plant Production Data
Fugitive Dust Control Plan**

| Plant Production Data | | | | | |
|-----------------------------|------|-----------------------------|--------------------|-----------|-----------|
| Emission Source Description | ID | Maximum Number of Bricks/yr | Weight of Sbe (lb) | Maximum | |
| | | | | (tons/hr) | (tons/yr) |
| Tunnel Kiln | EU02 | 140,000,000 | 3.25 | 25.97 | 227,500 |

| Boral Bricks Inc. - Indiana Plant | | | | | | | | | | | | | |
|-----------------------------------|---|-------------------|----------------|----------------|------------------|--------------------|----------------------|-----------------------|-------------------|-----------------|---------------|--------------------|--|
| Emission Unit Groups | Emission Source Description ^(b) | # of Units | ID | Control Device | Ets. Date Const. | Est. Date Complete | Operating Time | | Actual Throughput | | | Maximum Throughput | |
| | | | | | | | Short-Term (hrs/day) | Long-Term (days/year) | Short-Term | Long-Term | Short-Term | Long-Term | |
| EUG-01 | Dump Truck Unloading | 1 | MR01 | | Jan-07 | Oct-07 | 8 | 250 | 95 tons/hr | 190,000 tons/yr | 120 tons/hr | 240,000 tons/yr | |
| | Receiving Material Apron Feeder | 1 | MR02 | | Jan-07 | Oct-07 | 8 | 250 | 95 tons/hr | 190,000 tons/yr | 120 tons/hr | 240,000 tons/yr | |
| | Crude Material Belt Conveyors | 3 | MR03 | | Jan-07 | Oct-07 | 8 | 250 | 95 tons/hr | 190,000 tons/yr | 120 tons/hr | 240,000 tons/yr | |
| EUG-02 | Primary Crusher | 1 | GR01 | | Jul-07 | Oct-07 | 8 | 250 | 95 tons/hr | 190,000 tons/yr | 120 tons/hr | 240,000 tons/yr | |
| | Scalping Screen | 1 | GR02 | CD02 | Jul-07 | Oct-07 | 8 | 250 | 95 tons/hr | 190,000 tons/yr | 120 tons/hr | 240,000 tons/yr | |
| | Screens (Bank of 3) | 1 | GR03 | CD02 | Jul-07 | Oct-07 | 8 | 250 | 95 tons/hr | 190,000 tons/yr | 120 tons/hr | 240,000 tons/yr | |
| | Processing Belt Conveyors | 5 | GR04 | CD02 | Jul-07 | Oct-07 | 8 | 250 | 95 tons/hr | 190,000 tons/yr | 120 tons/hr | 240,000 tons/yr | |
| | Impact Crusher (Grinder) | 1 | GR05 | CD02 | Jul-07 | Oct-07 | 8 | 250 | 95 tons/hr | 190,000 tons/yr | 120 tons/hr | 240,000 tons/yr | |
| | Screw Conveyors | 2 | GR06 | CD02 | Jul-07 | Oct-07 | 8 | 250 | 95 tons/hr | 190,000 tons/yr | 120 tons/hr | 240,000 tons/yr | |
| | Raw Material Bin | 2 | GR07 | | Jul-07 | Oct-07 | 8 | 250 | 95 tons/hr | 190,000 tons/yr | 120 tons/hr | 240,000 tons/yr | |
| EUG-03 | Raw Material Feeder | 2 | GR08 | | Jul-07 | Oct-07 | 8 | 250 | 95 tons/hr | 190,000 tons/yr | 120 tons/hr | 240,000 tons/yr | |
| | Processed Clay Bunker Filling (1 conveyor) | 1 | PC01 | | Jul-07 | Oct-07 | 8 | 250 | 95 tons/hr | 190,000 tons/yr | 120 tons/hr | 240,000 tons/yr | |
| | Reclaimer | 1 | PC02 | | Jul-07 | Oct-07 | 8 | 250 | 95 tons/hr | 190,000 tons/yr | 120 tons/hr | 240,000 tons/yr | |
| | Processed Clay Feed Conveyors | 5 | PC03 | | Jul-07 | Oct-07 | 16 | 250 | 85 tons/hr | 340,000 tons/yr | 90 tons/hr | 360,000 tons/yr | |
| EUG-04 | Reclaimer by-pass chute | 1 | PC04 | | Jul-07 | Oct-07 | 8 | 250 | 95 tons/hr | 190,000 tons/yr | 120 tons/hr | 240,000 tons/yr | |
| | Sand (supersack) | 1 | SD01 | | Jul-07 | Oct-07 | 16 | 250 | 12.5 tons/day | 468 tons/yr | 30 tons/day | 780 tons/yr | |
| EUG-05 | Additive (supersack) | 1 | AD01 | | Jul-07 | Oct-07 | 16 | 350 | 0.25 tons/hr | 1,400 tons/yr | 1 tons/hr | 5,600 tons/yr | |
| | Even Feeder (88E) | 1 | ^(a) | | Jul-07 | Oct-07 | 16 | 250 | 7.99 tons/hr | 31,960 tons/yr | 9.99 tons/hr | 39,960 tons/yr | |
| | Mixed Clay Feed Conveyor | 2 | ^(a) | | Jul-07 | Oct-07 | 16 | 250 | 85 tons/hr | 340,000 tons/yr | 90 tons/hr | 360,000 tons/yr | |
| EUG-06 | Forming (Pug Mill, Extruding) | 1 | ^(a) | | Jul-07 | Oct-07 | 16 | 250 | 85 tons/hr | 340,000 tons/yr | 90 tons/hr | 360,000 tons/yr | |
| | Setting Brick | 1 | ^(a) | | Jul-07 | Oct-07 | 16 | 350 | 85 tons/hr | 340,000 tons/yr | 90 tons/hr | 360,000 tons/yr | |
| | Holding Room | 1 | ^(a) | | Jul-07 | Oct-07 | 24 | 365 | 17.53 tons/hr | 153,600 tons/yr | 25.97 tons/hr | 227,500 tons/yr | |
| | Tunnel Dryer #1 | 1 | EU01 | | Jul-07 | Oct-07 | 24 | 365 | 17.53 tons/hr | 153,600 tons/yr | 25.97 tons/hr | 227,500 tons/yr | |
| | Tunnel Kiln #1 (Natural Gas Fuel Scenario) | 1 | EU02 | CD01 | Jul-07 | Oct-07 | 24 | 365 | 17.53 tons/hr | 153,600 tons/yr | 25.97 tons/hr | 227,500 tons/yr | |
| | Tunnel Kiln #1 (Landfill Gas Fuel Scenario) | 1 | EU02 | CD01 | Jul-07 | Oct-07 | 24 | 365 | 17.53 tons/hr | 153,600 tons/yr | 25.97 tons/hr | 227,500 tons/yr | |
| | Brick Packaging | 1 | ^(a) | | Jul-07 | Oct-07 | 20 | 365 | 39.1 tons/hr | 153,600 tons/yr | 40.5 tons/hr | 227,500 tons/yr | |
| | Control Device Descriptions | # of Units | ID | | | | | | | | | | |
| | Dry-Injection Fabric Filter (DIFF) | 1 | CD01 | | | | | | | | | | |
| Clay Preparation Dust Collector | 1 | CD02 | | | | | | | | | | | |

Notes:

- (a) Emissions for this equipment were not calculated due to the nature of the process, including high moisture levels. We feel that no emissions are generated from these sources.
 (b) This list contains all of the equipment and processes that Boral believes emit air pollutants.

**Indiana Department of Environmental Management
Office of Air Quality
and
Vigo County Air Pollution Control**

**Addendum to the New Source Review and
Part 70 Operating Permit**

| | |
|-------------------------|---|
| Source Name: | Boral Bricks Terre Haute Plant |
| Source Location: | 5601 E. Price Road, Terre Haute, Indiana 47802 |
| County: | Vigo |
| SIC Code: | 3251 |
| Permit No.: | T167-23205-00139 |
| Permit Reviewer: | Rob Harmon |

On July 6, 2007, the Office of Air Quality (OAQ) and Vigo County Air Pollution Control (VCAPC) had a notice published in the Terre Haute Tribune Star, Terre Haute Indiana, stating that Boral Bricks Terre Haute Plant had applied for a New Source Review and Part 70 Operating Permit to construct and operate a stationary brick manufacturing plant. The notice also stated that OAQ and VCAPC proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On August 2, 2007, Boral Bricks Terre Haute Plant submitted comments on the proposed New Source Review and Part 70 Operating Permit. The summary of the comments is as follows:

Comment 1:

Section D.1(a)(2) lists the receiving material apron feeder (MR02) as being located in an enclosed building. MR02 will not be located in an enclosed building. It will be open to the atmosphere. In order to address fugitive dust emissions, Boral will use water sprays as needed.

Response to Comment 1:

As a result of this operation not being enclosed, it would no longer be considered an affected facility under NSPS 40 CFR 60 Subpart OOO. The unit description in both Condition A.2(a)(2) and Condition D.1(a)(2) has been changed as follows:

Receiving material apron feeder, approved for construction in 2007, identified as MR02, with a maximum short term capacity of 120 tons per hour. ~~Under NSPS Subpart OOO, this is an affected facility enclosed in a building.~~

Comment 2:

Section D.1(c)(3) lists three processed clay feed conveyors for emission unit PC03. However, final design updates have identified a need for additional conveyor capacity to provide adequate transfer of processed clay material. Therefore, PC03 should be changed to include six (6) processed clay conveyors. Four (4) of these conveyors transfer wet (12-14% moisture) material from the double shaft mixer to an intermediate storage area (composed of 3 sided concrete bins), and the other two (2) convey material from those bins to the brick manufacturing area. Boral feels all six (6) of these conveyors move material wet enough to be considered nonemitting.

Response to Comment 2:

IDEM and VCAPC have determined that, given the high moisture content of the material being conveyed from the double shaft mixer to the intermediate storage area, the PM and PM10 emissions from these conveyors would be negligible. However, the PM and PM10 emissions from the two (2) post storage conveyors need to be accounted for in both the emission calculations and in the minor source modeling for this approval. The updated emission calculations and minor source modeling sheet are attached to this approval. The conveyor emissions, after limitations, increased by 2.5 tons per year of particulate matter and 1.0 ton per year of PM10. These increases did not change any related rule applicability. The PM10 minor source modeling resulted in peak concentrations below the National Ambient Air Quality

Standards (NAAQS).

The description of this unit has been changed in Condition A.2(c)(3) as well as in Section D.1(c)(3) as follows:

~~Three (3)~~ **Six (6)** processed clay feed conveyors, **four (4) between the double shaft mixer and the intermediate storage area and two (2) from intermediate storage to brick manufacturing**, approved for construction in 2007, identified as PC03, with a maximum short term capacity of 120 tons per hour each, and exhausting internally.

Comment 3:

Section D.2(d)(1) lists the sand supersack as emission unit SD01. After further review of the sand operations, Boral has determined that the sand supersack should be considered an insignificant activity. The sand supersacks are used to add sand as an additive in portable mixing bins. Approximately 200-500 pounds of sand will be added in the batch mix process. Batch sand mixing will occur approximately 5-10 times per day. This will result in a maximum process rate of 500 lb/hr or 0.25 ton/hr and 2.5 tons/day. Using the PM-10 emission factor of 0.03 lb/ton, this will result in conservative estimates of maximum PM-10 emissions of 0.008 lb/hr, 0.08 lb/day and 0.04 tons/yr. These emission levels are below the insignificant activity limitations contained in 326 IAC 2-7-1(21) and 2-1.1-3(e)(1). Therefore SD01 will be an insignificant activity and should be removed from Section D.2.

Response to Comment 3:

The sand supersack has been moved to the Specifically Regulated Insignificant Activity listing under Condition A.3. However, this unit is still subject to the requirements of 326 IAC 6.5, and as such will remain in Section D.2. The following changes were made to accurately reflect the status of this unit:

Condition A.2(d) was changed as follows:

- (d) Sand handling emission unit group, identified as EUG-04, consisting of:
 - ~~(1) Sand (supersack), approved for construction in 2007, identified as SD01, with a maximum short term capacity of 30 tons per day.~~
 - ~~(2) Sand tank silo, approved for construction in 2007, identified as SD02, with a maximum short term capacity of 30 tons per day.~~

Condition A.3 was changed as follows:

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

This stationary source also includes the following specifically regulated insignificant activities:

- (a)** Paved and unpaved roads and parking lots with public access. [326 IAC 6-5]
- (b)** **Sand (supersack), approved for construction in 2007, identified as SD01, with a maximum short term capacity of 30 tons per day. [326 IAC 6.5]**

The description box in Section D.2 was changed as follows:

Emissions Unit Description: Sand handling emission unit group

- (d) Sand handling emission unit group, identified as EUG-04, consisting of:
 - ~~(1) Sand (supersack), approved for construction in 2007, identified as SD01, with a maximum short term capacity of 30 tons per day.~~
 - ~~(2) Sand tank silo, approved for construction in 2007, identified as SD02, with a maximum short term capacity of 30 tons per day.~~

Specifically Regulated Insignificant Activities

- (a)** **Paved and unpaved roads and parking lots with public access. [326 IAC 6-5]**
- (b)** **Sand (supersack), approved for construction in 2007, identified as**

SD01, with a maximum short term capacity of 30 tons per day. [326 IAC 6.5]

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

Comment 4:

Section 3.7(d), line 3, states "...during the latest performance test, the switches monitoring the interlock system...". Boral is requesting the word "switches" be replaced with "switches and/or level sensors".

Response to Comment 4:

The change was made as requested. Condition D.3.7(d) was changed as follows:

The Permittee shall inspect the dry lime feed system and feeder setting on the dry lime injection baghouse once per day. If the lime feeder setting drops below the level established during the latest performance test, the switches **and/or level sensors** monitoring the interlock system on the limestone delivery systems, including the lime screw conveyor and holding bin, are not functioning properly, or the Permittee discovers cracks, holes or abnormal/excessive wear on the indicators for the screw conveyor and holding bin, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A feeder setting that is below the level established during the latest performance test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Comment 5:

Condition 3.9, I. Indicator #4 contains a typo. It should read "Conduct emissions test to demonstrate compliance, and establish lime feed rate and associated destruction efficiency". The last two words "achieve compliance" should be removed.

Response to Comment 5:

The change was made to the table cell as follows:

Conduct emissions test to demonstrate compliance and establish lime feed rate and associated destruction efficiency ~~achieve compliance~~

Comment 6:

Condition 3.9, III.D Data Collection Procedure for Indicator #3 should be revised to be consistent with the language in III.D Monitoring Frequency. Boral requests that the description in both the Monitoring Frequency section and the Data Collection Procedure section list the methodology which outlines the option to decrease VE readings to weekly after 30 days of no VE has been observed.

Response to Comment 6:

IDEM and VCAPC have determined the language in Condition D.3.6, which requires daily visible emission notations, needs to remain as is because frequent monitoring is required to ensure continuous compliance and this (Condition D.3.9) is required under CAM (40 CFR Part 64). Therefore, the entries in D.3.9 III.D Data Collection and D.3.9 III.D Monitoring Frequency have been modified to match that.

D.3.9 III.D Monitoring Frequency was changed as follows:

Daily under normal operating conditions, ~~until 30 consecutive days of no VE are observed, then decrease to weekly; increase to weekly upon any VE observance~~

D.3.9 III D Data Collection was changed as follows:

Observe stack for 15 minutes daily/~~weekly~~ and record if visible emissions are observed

Comment 7:

Section D.3.10(b) contains a typo. The reference to Condition D.3.2(e) should be changed to D.3.2(f).

Response to Comment 7:

The change was made as requested. Condition D.3.10(b) was changed as follows:

To document compliance with Condition D.3.2(~~e~~) (**f**), the Permittee shall maintain monthly records of the amount time the Dry Injection Fabric Filter (DIFF) was bypassed.

**Indiana Department of Environmental Management
Office of Air Quality
And
Vigo County Air Pollution Control**

Technical Support Document (TSD) for a New Source Review
and Part 70 Permit

Source Description and Location

Source Name: Boral Bricks Terre Haute Plant
Source Location: 5601 E. Price Road, Terre Haute, IN 47802
County: Vigo
SIC Code: 3251
Operation Permit No.: T 167-23205-00139
Permit Reviewer: Rob Harmon

Existing Approvals

There have been no previous approvals issued to this source.

County Attainment Status

The source is located in Vigo County.

| Pollutant | Status |
|------------------|------------------------|
| PM10 | Attainment |
| PM2.5 | Attainment |
| SO ₂ | Maintenance Attainment |
| NO ₂ | Attainment |
| 8-hour Ozone | Maintenance Attainment |
| 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 ozone. Vigo County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) Vigo County has been classified as attainment for PM_{2.5}. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM_{2.5} emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM_{2.5} emissions, it has directed states to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions.
- (c) Vigo County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 re-designating Delaware, Greene, Jackson, Vanderburgh, Vigo and Warrick

Counties to attainment for the eight-hour ozone standard, re-designating Lake County to attainment for the sulfur dioxide standard, and revoking the one-hour ozone standard in Indiana.

- (e) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

| |
|---|
| Description of New Source Construction |
|---|

The Office of Air Quality (OAQ) and Vigo County Air Pollution Control (VCAPC) have reviewed a new source construction application, submitted by Boral Brick, Inc. on June 5, 2006, relating to a stationary brick manufacturing plant. The following is a list of the proposed emission units and pollution control devices:

- (a) Material receiving emission unit group, identified as EUG-01, consisting of:
- (1) Dump truck unloading, approved for construction in 2007, identified as MR01, with a maximum short term capacity of 120 tons per hour.
 - (2) Receiving material apron feeder, approved for construction in 2007, identified as MR02, with a maximum short term capacity of 120 tons per hour. Under NSPS Subpart OOO, this is an affected facility enclosed in a building.
 - (3) Three (3) crude material belt conveyors, approved for construction in 2007, identified as MR03, with a maximum short term capacity of 120 tons per hour each, and exhausting internally. Under NSPS Subpart OOO, these are conveyors with transfer points enclosed in a building.
- (b) Clay grinding and screening operations emission unit group, identified as EUG-02, consisting of:
- (1) Primary crusher, approved for construction in 2007, identified as GR01, with a maximum short term capacity of 120 tons per hour, and exhausting internally. Under NSPS OOO, this is an affected facility enclosed in a building.
 - (2) Scalping screen, approved for construction in 2007, identified as GR02, with a maximum short term capacity of 120 tons per hour, controlled by dust collector CD02, and exhausting through stack CD02. Under NSPS OOO, this is an affected facility with a stack.
 - (3) Screens (bank of 3 units), approved for construction in 2007, identified as GR03, with a maximum short term capacity of 120 tons per hour, controlled by dust collector CD02, and exhausting through stack CD02. Under NSPS OOO, this is an affected facility with a stack.
 - (4) Seven (7) processing belt conveyors, approved for construction in 2007, identified as GR04, with a maximum short term capacity of 120 tons per hour each, controlled by dust collector CD02, and exhausting through stack CD02. Under NSPS OOO, this is an affected facility with a stack.
 - (5) Impact crusher, approved for construction in 2007, identified as GR05, with a maximum short term capacity of 120 tons per hour, controlled by dust collector CD02, and exhausting through stack CD02. Under NSPS OOO, this is an affected facility with a stack.
 - (6) Two (2) screw conveyors, approved for construction in 2007, identified as GR06, with a maximum short term capacity of 120 tons per hour each, controlled by dust collector CD02, and exhausting through stack CD02. Under NSPS OOO, this is an affected facility with a stack.
 - (7) Three (3) raw material bins, approved for construction in 2007, identified as GR07, with a maximum short term capacity of 120 tons per hour, and exhausting internally. Under NSPS OOO, this is an affected facility enclosed in a building.

- (8) Three (3) raw material feeders, approved for construction in 2007, identified as GR08, with a maximum short term capacity of 120 tons per hour, and exhausting internally. Under NSPS OOO, this is an affected facility enclosed in a building.
- (c) Processed clay emission unit group, identified as EUG-03, consisting of:
 - (1) Processed clay bunker filling, approved for construction in 2007, identified as PC01, with a maximum short term capacity of 120 tons per hour, and exhausting internally.
 - (2) Reclaimer, approved for construction in 2007, identified as PC02, with a maximum short term capacity of 120 tons per hour, and exhausting internally.
 - (3) Three (3) processed clay feed conveyors, approved for construction in 2007, identified as PC03, with a maximum short term capacity of 120 tons per hour each, and exhausting internally.
 - (4) Reclaimer by-pass chute, approved for construction in 2007, identified as PC04, with a maximum short term capacity of 120 tons per hour, and exhausting internally.
- (d) Sand handling emission unit group, identified as EUG-04, consisting of:
 - (1) Sand (supersack), approved for construction in 2007, identified as SD01, with a maximum short term capacity of 30 tons per day.
 - (2) Sand tank silo, approved for construction in 2007, identified as SD02, with a maximum short term capacity of 30 tons per day.
- (e) Brick forming and firing emission unit group, identified as EUG-05, consisting of:
 - (1) Tunnel dryer, approved for construction in 2007, identified as EU01, with a maximum short term capacity of 26 tons of brick per hour, with a maximum supplemental heat rate of 5.943 million (MM) BTU per hour firing natural gas, without control, and exhausting through stack EU01.
 - (2) Landfill gas-fired Tunnel Kiln with natural gas as back up, approved for construction in 2007, identified as EU02, with a maximum firing rate of 55 million (MM) Btu per hour, with a maximum capacity of 26 tons of brick per hour, with a dry lime injection fabric filter (DIFF)(CD01) for control, and exhausting through stack CD01. Under 326 IAC 20-72, which incorporated by reference NESHAP JJJJJ (July 1, 2006 version), this is a new affected source using a dry lime injection fabric filter (DIFF) emissions control system to comply with the rule.

Insignificant Activities

- (a) Paved and unpaved roads and parking lots with public access. [326 IAC 6-5]
- (b) Kiln car cleaning operations.
- (c) Comfort space heating and water heating units.
- (d) A petroleum fuel, other than gasoline dispensing facility, having storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month, including one (1) diesel storage tank, approved for construction in 2007, storage capacity: 1,000 gallons.
- (e) The following VOC and HAP storage containers:
 - 1. Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
 - 2. Vessels storing lubricating oils, soybean oil, brick oil, used oil, hydraulic oils, machining oils, and machining fluids.
- (f) Flue gas conditioning systems and associated chemicals such as the following: sodium sulfate; ammonia; and sulfur trioxide.

Enforcement Issues

There are no pending enforcement actions regarding this Title V application.

Stack Summary

| Stack ID | Operation | Height (feet) | Diameter (feet) | Flow Rate (acfm) | Temperature (°F) |
|----------|------------------------------------|---------------|-----------------|------------------|------------------|
| CD01 | Kiln - Dry Injection Fabric Filter | 82 | 5.91 | 65,330 | 356 |
| CD02 | Clay Preparation Dust Collector | 55 | 3.70 | 33,700 | ambient |
| EU01 | Dryer | 55 | 6.56 | 85,350 | 284 |

Emission Calculations

See Appendix A of this document for detailed emission calculations. (Pages 1 through 13)

Permit Level Determination – Part 70

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

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

| Pollutant | Potential To Emit (tons/year) |
|-----------------|-------------------------------|
| PM | 9161.12 |
| PM10 | 769.95 |
| SO ₂ | 534.11 |
| VOC | 6.29 |
| CO | 138.85 |
| NO _x | 42.47 |

| HAPs | Potential To Emit (tons/year) |
|---------------------------|-------------------------------|
| HF | 42.14 |
| HCl | 19.36 |
| 1,1,1-Trichloroethane | 5.35E-4 |
| 1,4-Dichlorobenzene | 5.50E-3 |
| 2-butanone | 2.51E-2 |
| Benzene | 3.30E-1 |
| Bis(2-ethylhexy)phthalate | 2.28E-1 |
| Carbon disulfide | 4.90E-3 |
| Chlorine | 1.48E-1 |
| Chloroethane | 6.49E-2 |

| HAPs | Potential To Emit (tons/year) |
|---------------------|-------------------------------|
| Chloromethane | 7.63E-2 |
| Di-n-butylphtalate | 1.59E-2 |
| Ethylbenzene | 5.01E-3 |
| m-/p-Xylene | 7.63E-3 |
| o-Xylene | 6.61E-3 |
| Lodomethane | 1.06E-2 |
| Naphthalene | 7.40E-3 |
| Phenol | 9.79E-3 |
| Styrene | 2.28E-3 |
| Tetrachloroethylene | 3.19E-4 |
| Toluene | 1.83E-2 |
| Antimony | 3.07E-3 |
| Arsenic | 3.53E-3 |
| Beryllium | 4.78E-5 |
| Cadmium | 1.74E-3 |
| Chromium | 5.84E-3 |
| Cobalt | 2.39E-4 |
| Lead | 1.71E-2 |
| Manganese | 3.30E-2 |
| Mercury | 8.54E-4 |
| Nickel | 8.25E-3 |
| Selenium | 2.62E-2 |
| Formaldehyde | 1.96E-3 |
| Hexane | 4.69E-2 |
| TOTAL | 62.61 |

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM₁₀ and SO₂ is equal to or greater than one hundred (100) tons per year. 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 and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. 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.

Permit Level Determination – PSD or Emission Offset

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this new source Part 70, 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 | PM10 | SO ₂ | VOC | CO | NO _x | (Other) (Pb, Be, Hg, etc.) |
| Material Receiving (EUG-01) | 34.00 | 23.00 | -- | -- | -- | -- | -- |
| Clay Grinding and Screening Operations (EUG-02) | 48.75 | 17.53 | -- | -- | -- | -- | -- |
| Processed Clay (EUG-03) | 16.25 | 2.93 | -- | -- | -- | -- | -- |
| Sand Handling (EUG-04) | 0.03 | 0.01 | -- | -- | -- | -- | -- |
| Tile Forming and Firing (EUG-05) | 13.72 | 99.27 | 247.86 | 6.29 | 138.85 | 42.47 | HF - 4.21 HCl - 2.90 Total HAP - 8.23 |
| Total for New Source | 112.74 | 142.74 | 247.86 | 6.29 | 138.85 | 42.47 | HF - 4.21 HCl - 2.90 Total HAP - 8.23 |
| Major Source Threshold | 250 | 250 | 250 | 250 | 250 | 250 | -- |

Since this new source has an unrestricted potential to emit greater than two hundred and fifty (250) tons of PM, PM10 and SO₂, this source has elected to limit the potential to emit of this modification as follows:

- (a) The amount of clay/shale processed shall be less than 500,000 tons per twelve consecutive month period, with compliance determined at the end of each month.
- (b) PM emissions from the Clay Preparation Dust Collector, identified as CD02, which controls emissions from the scalping screen, screens, processing belt conveyors, impact crusher, and screw conveyors, shall not exceed 0.10 pounds per ton processed.
- (c) PM10 emissions from the Clay Preparation Dust Collector, identified as CD02, which controls emissions from the scalping screen, screens, processing belt conveyors, impact crusher, and screw conveyors, shall not exceed 0.0109 pounds per ton processed.
- (d) The amount of fired product (brick) produced by the tunnel kiln (EU06) shall be less than 227,500 tons per twelve (12) consecutive month period, with compliance determined at the end of each month (which is the potential raw material throughput of the kiln).
- (e) PM emissions from the tunnel kiln (EU02) shall not exceed 0.12 pounds per ton of fired product.
- (f) PM10 emissions from the tunnel kiln (EU02) shall not exceed 0.87 pounds per ton of fired product.
- (g) SO₂ emissions from the tunnel kiln (EU02), when ducted through the Dry Injection Fabric Filter (DIFF) (CD01), shall not exceed 2.11 pounds per ton of fired product.

- (h) SO₂ emissions from the tunnel kiln (EU02), when bypassing the Dry Injection Fabric Filter (DIFF)(CD01), shall not exceed 4.69 pounds per ton of fired product.
- (i) The Dry Injection Fabric Filter (DIFF)(CD01) for SO₂ control shall be in operation and control emissions from the Tunnel Kiln at all times that the Tunnel Kiln is in operation, except for a maximum of 123 hours per 12 consecutive month period during which the DIFF may be bypassed (for routine maintenance).

Compliance with these emission limits and the potential to emit of the other units will ensure that the potential to emit from this new source is less than two hundred and fifty (250) tons of PM, PM10, and SO₂ per year and therefore will render the requirements of 326 IAC 2-2 not applicable.

Federal Rule Applicability Determination

The following federal rules are applicable to the source:

- (a) Boral Brick Terre Haute Plant is subject to the New Source Performance Standards for Nonmetallic Mineral Processing Plants (40 CFR 60, Subpart OOO), which is incorporated by reference as 326 IAC 12. The units subject to this rule include the following:
 - (a) Material receiving emission unit group, identified as EUG-01, consisting of:
 - (2) Receiving material apron feeder, approved for construction in 2007, identified as MR02, with a maximum short term capacity of 120 tons per hour. Under NSPS Subpart OOO, this is an affected facility enclosed in a building.
 - (3) Three (3) crude material belt conveyors, approved for construction in 2007, identified as MR03, with a maximum short term capacity of 120 tons per hour each, and exhausting internally. Under NSPS Subpart OOO, these are conveyors with transfer points enclosed in a building.
 - (b) Clay grinding and screening operations emission unit group, identified as EUG-02, consisting of:
 - (1) Primary crusher, approved for construction in 2007, identified as GR01, with a maximum short term capacity of 120 tons per hour, and exhausting internally. Under NSPS OOO, this is an affected facility enclosed in a building.
 - (2) Scalping screen, approved for construction in 2007, identified as GR02, with a maximum short term capacity of 120 tons per hour, controlled by dust collector CD02, and exhausting through stack CD02. Under NSPS OOO, this is an affected facility with a stack.
 - (3) Screens (bank of 3 units), approved for construction in 2007, identified as GR03, with a maximum short term capacity of 120 tons per hour, controlled by dust collector CD02, and exhausting through stack CD02. Under NSPS OOO, this is an affected facility with a stack.
 - (4) Seven (7) processing belt conveyors, approved for construction in 2007, identified as GR04, with a maximum short term capacity of 120 tons per hour each, controlled by dust collector CD02, and exhausting through stack CD02. Under NSPS OOO, this is an affected facility with a stack.
 - (5) Impact crusher, approved for construction in 2007, identified as GR05, with a maximum short term capacity of 120 tons per hour, controlled by dust collector CD02, and exhausting through stack CD02. Under NSPS OOO, this is an affected facility with a stack.
 - (6) Two (2) screw conveyors, approved for construction in 2007, identified as GR06, with a maximum short term capacity of 120 tons per hour each,

- controlled by dust collector CD02, and exhausting through stack CD02. Under NSPS OOO, this is an affected facility with a stack.
- (7) Three (3) raw material bins, approved for construction in 2007, identified as GR07, with a maximum short term capacity of 120 tons per hour, and exhausting internally. Under NSPS OOO, this is an affected facility enclosed in a building.
 - (8) Three (3) raw material feeders, approved for construction in 2007, identified as GR08, with a maximum short term capacity of 120 tons per hour, and exhausting internally. Under NSPS OOO, this is an affected facility enclosed in a building.

Nonapplicable portions of the NSPS will not be included in the permit. This source is subject to the following portions of Subpart OOO.

- 1. 40 CFR 60.670(a)(1), (e) and (f)
- 2. 40 CFR 60.671
- 3. 40 CFR 60.672(a), (b), (d) and (e)
- 4. 40 CFR 60.675(a), (b), (c)(1)(i) and (ii), (d), (e) and (g)
- 5. 40 CFR 60.676(f), (i)(1) and (j)

The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated as 326 IAC 12-1-1, apply to the emission units described in this section except when otherwise specified in 40 CFR 60, Subpart OOO.

- (b) Boral Brick Terre Haute Plant is not subject to the New Source Performance Standard for Calciners and Dryers in Mineral Industries (40 CFR 60, Subpart UUU), which is incorporated by reference as 326 IAC 12. The kiln is not subject as only the calcining and drying of raw materials prior to firing of the brick are covered under this subpart. The drying operation at the source is not subject to this standard as the dryer is for the drying of bricks and not drying raw materials.
- (c) Boral Brick would have been subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Brick and Structural Clay Products Manufacturing, Subpart JJJJJ. However, on March 13, 2007, the United States Court of Appeals for the District of Columbia Circuit (in *Sierra Club vs EPA*, 2007 U.S. App LEXIS 5749, No. 03-1202), vacated 40 CFR 63, Subpart JJJJJ in its entirety.

Since NESHAP 40 CFR Part 63, Subpart JJJJJ has been vacated and pursuant to Section 112(j) of the Clean Air Act, major sources of Hazardous Air Pollutants (HAPs), in specified source categories, require a case-by-case MACT determination when EPA fails to promulgate a scheduled MACT Standard by the regulatory deadline, a case-by-case MACT determination applies to Boral Brick. The version of 40 CFR 63, Subpart JJJJJ (July 1, 2006 version) that was incorporated by reference into the Indiana State rules, 326 IAC 20-72, on April 26, 2007, will be considered as MACT for Boral Brick. The affected facility includes the following:

Landfill gas-fired Tunnel Kiln with natural gas as back up, approved for construction in 2007, identified as EU02, with a maximum firing rate of 55 million (MM) Btu per hour, with a maximum capacity of 26 tons of brick per hour, with a dry lime injection fabric filter (DIFF)(CD01) for control, and exhausting through stack CD01. Under 326 IAC 20-72, which incorporated by reference NESHAP JJJJJ (July 1, 2006 version), this is a new affected source using a dry lime injection fabric filter (DIFF) emissions control system to comply with the rule.

Pursuant to Section 112(j) of the CAA, the new proposed kiln is subject to 326 IAC 20-72, which incorporates by reference 40 CFR 63, Subpart JJJJJ (July 1, 2006 version).

Pursuant to 326 IAC 20-72, the Permittee shall comply with the requirements of 40 CFR 63, Subpart JJJJJ (July 1, 2006 version), upon initial startup.

Nonapplicable portions of the NESHAP 40 CFR Part 63, Subpart JJJJJ (July 1, 2006 version) will not be included in the permit. The affected source is subject to the following provisions specified in 40 CFR 63, Subpart JJJJJ (July 1, 2006 version):

- (1) 40 CFR 63.8380
- (2) 40 CFR 63.8385
- (3) 40 CFR 63.8390 (a), (e) and (h)
- (4) 40 CFR 63.8395 (a)(2) and (e)
- (5) 40 CFR 63.8405
- (6) 40 CFR 63.8410(a)
- (7) 40 CFR 63.8420
- (8) 40 CFR 63.8425
- (9) 40 CFR 63.8435
- (10) 40 CFR 63.8440
- (11) 40 CFR 63.8445 (a) through (h)
- (12) 40 CFR 63.8450 (a), (f) and (h)
- (13) 40 CFR 63.8455
- (14) 40 CFR 63.8465
- (15) 40 CFR 63.8470 (a), (c), (e), (f) and (g)
- (16) 40 CFR 63.8480 (a), (c), (d), (e)(1) and (2)(i), and (f)
- (17) 40 CFR 63.8485 (a), (b), (c), (e) and (f)
- (18) 40 CFR 63.8490 (a), (b) and (c)(2) through (6)
- (19) 40 CFR 63.8495
- (20) 40 CFR 63.8505
- (21) 40 CFR 63.8510
- (22) 40 CFR 63.8515
- (23) Tables 1, 2, 3, 4, 5, 6 and 7

The provisions of 40 CFR 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63, Subpart JJJJJ.

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

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

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

| Emission Unit | Control Device Used | Emission Limitation (Y/N) | Uncontrolled PTE (tons/year) | Controlled PTE (tons/year) | Major Source Threshold (tons/year) | CAM Applicable (Y/N) | Large Unit (Y/N) |
|-------------------|---------------------|---------------------------|------------------------------|----------------------------|------------------------------------|----------------------|------------------|
| Scalping screen | Baghouse CD02 | Y | 2125 | 21.25 | 100 | Y | N |
| Three (3) Screens | Baghouse CD02 | Y | 2125 | 21.25 | 100 | Y | N |

| Emission Unit | Control Device Used | Emission Limitation (Y/N) | Uncontrolled PTE (tons/year) | Controlled PTE (tons/year) | Major Source Threshold (tons/year) | CAM Applicable (Y/N) | Large Unit (Y/N) |
|--------------------------------------|---------------------|---------------------------|------------------------------|----------------------------|------------------------------------|----------------------|------------------|
| Seven (7) processing belt conveyors | Baghouse CD02 | Y | 18.0 | 0.18 | 100 | N | N |
| Impact crusher | Baghouse CD02 | Y | 4.0 | 0.04 | 100 | N | N |
| Two (2) screw conveyors | Baghouse CD02 | Y | 5.0 | 0.05 | 100 | N | N |
| Tunnel Kiln (EU6) (SO ₂) | DIFF CD01 | Y | 534.11 | 240.08 | 100 | Y | Y |
| Tunnel Kiln (EU6) (HF) | DIFF CD01 | Y | 42.14 | 4.21 | 10 | N* | N |
| Tunnel Kiln (EU6) (HCl) | DIFF CD01 | Y | 19.36 | 2.90 | 10 | N* | N |

* Refer to end of section.

- (a) Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to CD02 used to control PM emissions from clay processing units. Pursuant to 40 CFR 64.5(b), a CAM plan for this facility, which is not a large unit because emissions are less than 100 tons per year after control, will be required as part of the Part 70 renewal application.
- (b) Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to the DIFF used to control SO₂ emissions from the tunnel kiln. Additionally, since this is considered to be a Large Unit, CAM must be evaluated as part of this approval. The Permittee has submitted a CAM plan on June 20, 2007. The CAM plan is as follows:

Dry Injection Fabric Filter (DIFF)(CD01)

- (a) Monitoring Approach for Dry Lime Injection Fabric Filter (DIFF) used to control SO₂ emissions from Tunnel Kiln EU01.

| | Indicator #1 | Indicator #2 | Indicator #3 | Indicator #4 |
|---------------------|----------------------------------|--|-----------------------------------|------------------|
| I. Indicator | Free-flowing lime feed into DIFF | Monitor lime feeder setting to ensure within acceptable range determined from performance test | Visible emissions from DIFF stack | Performance test |

| | Indicator #1 | Indicator #2 | Indicator #3 | Indicator #4 |
|---------------------------------------|--|--|--|--|
| Measurement Approach | Verify lime is free flowing via high/low level sensor on "POD" feeding DIFF | Verify lime feeder setting to ensure adequate lime is available to achieve required emission reduction | Perform Method 22 for visible emissions from DIFF exhaust stack | Conduct emissions test to demonstrate compliance and establish lime feed rate and associated destruction efficiency achieve compliance |
| II. Indicator Range | An excursion is identified as either a high or low level alarm indicating improper lime flow | An excursion is identified as the lime feeder setting below the acceptable range established during performance test | An excursion is identified as observance of visible emissions | An excursion is identified when control efficiency is demonstrated through performance testing to be below effective levels |
| Corrective Action | Each excursion triggers an assessment of the problem, corrective action in accordance with OM&M plan | Each excursion triggers an assessment of the problem, corrective action in accordance with OM&M plan | Each excursion triggers an assessment of the problem, corrective action in accordance with OM&M plan | Each excursion triggers an assessment of the problem, corrective action and a possible reporting and/or permitting requirement |
| III. Performance Criteria | | | | |
| A. Data Representativeness | Pod is designed to feed lime from the lime silo into screw conveyor which flows into DIFF system. Measuring low/high levels in the pod ensure free flowing lime feed through system. | Maintain lime feeder setting above established compliance parameter ensures proper control removal will be achieved | Maintaining no visible emissions is an indicator of proper performance | A test protocol shall be prepared and approved by IDEM prior to conducting performance test |
| B. Verification of Operational Status | Inspection and maintenance records, absence of alarm signal | Records of lime feed setting | Not Applicable | Data collection at time of performance testing will verify operational status |

| | Indicator #1 | Indicator #2 | Indicator #3 | Indicator #4 |
|---------------------------------|--|--|--|--|
| C. QA/QC Practices and Criteria | Installation and calibration is done in accordance with the manufacturer's recommendations and OM&M plan | Installation and calibration is done in accordance with the manufacturer's recommendations and OM&M plan | Not Applicable | Test protocol will outline standard QA/QC procedures to be followed during performance test |
| D. Monitoring Frequency | Every 15 minutes or continuously | Every 15 minutes or continuously | Daily under normal operating conditions, until 30 consecutive days of no VE are observed, then decrease to weekly; increase to weekly upon any VE observance | Every 5 years |
| Data Collection Procedure | Record any sensor output | Record feeder setting | Observe stack for 15 minutes daily/weekly and record if visible emissions are observed | Performance test report |
| Averaging Period | Not Applicable | Not Applicable | Not Applicable | Not Applicable |
| E. Recordkeeping | Maintain for a period of 5 years all records, logs, inspections and corrective actions taken in response to excursions | Maintain for a period of 5 years all records, logs, inspections and corrective actions taken in response to excursions | Maintain for a period of 5 years all records, logs, inspections and corrective actions taken in response to excursions | Maintain copy of test report for a period of 5 years or until another test is conducted; record of any corrective action taken in response to excursions |
| F. Reporting | Number, duration, cause of any excursion and any corrective action taken | Number, duration, cause of any excursion and any corrective action taken | Number, duration, cause of any excursion and any corrective action taken | Submit test protocol and notification of testing to IDEM at least 60 days prior to test date; Submit test report within 45 days of completing performance test |

| | Indicator #1 | Indicator #2 | Indicator #3 | Indicator #4 |
|-----------|--------------|--------------|--------------|-------------------------------------|
| Frequency | Semiannually | Semiannually | Semiannually | For each performance test conducted |

(b) Rationale for Selection of Performance Indicators

Monitoring of the free flow of lime and feeder setting of the DIFF control system ensures ongoing availability of reagent which is necessary to allow the reactions to occur which reduce SO₂ emissions. The "POD" is equipped with a high and low level sensor which will provide a continuous indication the lime is free flowing. Bridging in the silo would be reflected by a low level alarm, and bridging in the screw would be reflected by a high level alarm. The minimum rate of feed will be established based on the rates during a successful performance test.

Observations of visible emissions (VE) is a parameter that can be readily monitored to ensure the fabric filters are properly functioning. This will allow simple detection of any bag leaks or other conditions indicating improper operation.

(c) Rationale for Selection of Indicator Ranges

The selected indicator range which measures free flow of lime feed is a positive determination of proper operation rather than a specific range. This determination, combined with a minimum feeder setting for the lime feed rate, are indicative of proper SO₂ control. Selection of the minimum lime feed rate will be established by performance testing. Therefore, the selected indicator range will be directly tied to actual measured emissions demonstrating compliance.

* Based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to any of the other new units as part of this new source construction permit. This is because even the units with both a control device present, and an applicable emission limit, do not rely on the control to meet the limit. The only exception is the HCl and HF emissions from the Tunnel Kiln, but those are exempt from 40 CFR Part 64 (CAM) because the emission limits or standards come from a NESHAP (JJJJ) which was proposed by the Administrator after November 15, 1990, under Section 112 of the Clean Air Act.

State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

326 IAC 1-7 (Stack Height)

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. Stacks CD01 is subject to this requirement. PM emissions from stack CD02 are limited to less than 25 tons PM per year, making this requirement not applicable.

326 IAC 2-2 and 2-3 (PSD and Emission Offset)

PSD and Emission Offset applicability is discussed under the Permit Level Determination - PSD and Emission Offset section.

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

The operation of the kiln at the proposed brick manufacturing source will emit greater than ten (10)

tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs, before control. However, pursuant to 326 IAC 2-4.1-1(b)(2), because this kiln is specifically regulated by a case-by-case MACT determination pursuant to Section 112(j) of the Clean Air Act (CAA), this source is exempt from the requirements of 326 IAC 2-4.1.

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. The first report is due no later than July 1, 2009, and subsequent reports are due every three (3) years thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), 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.
- (c) This source is not located in the area of Vigo County referenced in 326 IAC 5-1-1(c)(8).

326 IAC 6.5-1-2 (Particulate Emission Limitations)

Even though Vigo County is currently an attainment area for particulate matter, it is still a listed county under 326 IAC 6.5-1-7. As such, the general nonattainment area provisions under 326 IAC 6.5-1-2 are still applicable.

- (a) Pursuant to 326 IAC 6.5-1-2(a), the Permittee shall not allow or permit discharge to the atmosphere of any gases which contain particulate matter in excess of 0.03 grain per dry standard cubic foot. The following emission units are subject to this requirement: dump truck unloading (MR01), receiving material apron feeder (MR02), crude material belt conveyors (MR03), primary crusher (GR01), scalping screen (GR02), screens (GR03), processing belt conveyors (GR04), impact crusher (GR05), screw conveyors (GR06), raw material bin (GR07), raw material feeder (GR08), processed clay bunker filling (PC01), reclaimer (PC02), processed clay feed conveyors (PC03), reclaimer by-pass chute (PC04), sand (supersack) (SD01), tunnel dryer (EU01), and tunnel kiln (EU02).
- (b) Pursuant to 326 IAC 6.5-1-2(b), limits are established for Fuel Combustion Steam Generators. The units that combust fuel do not generate steam, and therefore are instead subject to the requirements of (a) above.

The clay preparation dust collector (CD02) shall be in operation at all times the scalping screen, screens, processing belt conveyors, impact crusher, or screw conveyors are in operation, in order to comply with this limit.

326 IAC 6-4 (Fugitive Dust Emissions)

This source is subject to 326 IAC 6-4 for fugitive dust emissions. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), 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.

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

This source is subject to 326 IAC 6-5 for fugitive particulate matter emissions. Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emissions Limitations), for any new source which has not received all the necessary preconstruction approvals before December 13, 1985, a fugitive dust control plan must be submitted, reviewed and approved. This plan was submitted on February 20, 2007.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

- (a) The potential to emit SO₂ from the one (1) proposed tunnel kiln, identified as EU02, is greater than twenty-five (25) tons per year or ten (10) pounds per hour. Therefore, the kiln is subject to the requirements of 326 IAC 7-1.1. However, there are no limitations for landfill gas or natural gas combustion under 326 IAC 7-1.1-2. A landfill gas and natural gas certification will be required for the kiln to ensure that only landfill gas and/or natural gas is combusted.
- (b) The SO₂ emissions from the kiln are less than ten thousand (10,000) tons per year. Therefore, the requirements of 326 IAC 7-3 are not applicable.

326 IAC 7-4-3 (Vigo County sulfur dioxide emission limitations)

This source is not listed in 326 IAC 7-4-3, Vigo County sulfur dioxide emission limitations. Therefore, the requirements of that rule are not applicable.

326 IAC 8-1-6 (New Facilities; general reduction requirements)

The source is not subject to 326 IAC 8-1-6 for new sources of VOC emissions. Pursuant to 326 IAC 8-1-6 new facilities are subject only if they have potential emissions of 25 tons of VOC or more per year. This entire source has combined potential emissions of less than 25 tons per year.

326 IAC 9-1 (Carbon Monoxide Emission Limits)

There is no emission limitation established in 326 IAC 9-1-2 for brick kilns or dryers. Therefore, the requirements of 326 IAC 9-1 are not applicable.

326 IAC 10 (Nitrogen Oxides Rules)

The source is not located in either Lake or Floyd County. Therefore, it is not subject to the requirements of 326 IAC 10.

326 IAC 20-72-1 (Brick and Structural Clay Products)

The source is subject to the requirements of 326 IAC 20-72-1 (Brick and Structural Clay Products). This rule has been incorporated above as the case-by-case MACT Standard pursuant to Section 112(j) of the Clean Air Act (CAA). See that narrative above for specifics.

Air Quality Impacts from Minor Sources

Modeling Overview

Pursuant to 326 IAC 2-1.1-5, IDEM, OAQ, has conducted a modeling analysis of the Limited Potential to Emit (PTE) criteria pollutants from this proposed source to estimate whether the Limited PTE criteria pollutants will cause or contribute to a violation of any National Ambient Air Quality Standard (NAAQS).

Modeling Results – Criteria Pollutants

The modeling results indicate that the Limited PTE criteria pollutants from this source will not exceed the National Ambient Air Quality Standards (NAAQS).

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the

requirement for continuous demonstration. When this occurs, IDEM, OAQ and VCAPC, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for an enforcement action.

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

The Compliance Determination Requirements applicable to this modification are as follows:

- (a) The Dry Injection Fabric Filter (CD01) has applicable compliance determination conditions as specified below:
 - (1) Within 180 days of startup, but no more than 60 days after reaching maximum production, in order to demonstrate compliance with the 2.11 pounds of SO₂ per ton of bricks limitation in the permit (when DIFF is in operation) and the 4.69 pounds of SO₂ per ton of bricks limitation in the permit (when DIFF is being bypassed), the Permittee shall perform SO₂ testing for the Dry Injection Fabric Filter (CD01) stack 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.
 - (2) Within 180 days of startup, but no more than 60 days after reaching maximum production, in order to demonstrate compliance with the 0.85 pounds of PM per ton of bricks limitation in the permit and the 0.87 pounds of PM₁₀ per ton of bricks limitation in the permit, the Permittee shall perform PM and PM₁₀ testing for the Dry Injection Fabric Filter (CD01) stack 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. PM₁₀ includes filterable and condensable PM₁₀. Testing shall be conducted in accordance with Section C - Performance Testing.
 - (3) The tunnel kiln, identified as EU02, must also comply with the testing requirements of 326 IAC 20-72 which incorporated by reference the National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing (40 CFR 63, Subpart JJJJJ) (July 1, 2006 version), which includes PM, HCl and HF testing.
 - (4) Within 180 days of startup, but no more than 60 days after reaching maximum production, in order to demonstrate compliance with the PM limitation established by 326 IAC 6.5-1-2, the Permittee shall perform PM testing for the Dry Injection Fabric Filter (CD01) stack (before and after the control device) 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.
 - (5) In order to comply with the limitations that make the source minor pursuant to 326 IAC 2-2 (PSD), the Dry Injection Fabric Filter (DIFF) for SO₂ control shall be in

operation and control emissions from the Tunnel Kiln at all times that the Tunnel Kiln is in operation, except for a maximum of 123 hours per 12 consecutive month period during which the DIFF may be bypassed.

- (b) The clay/shale processing operations, identified as EUG-01 (except for dump truck unloading) and EUG-02, must comply with the testing requirements of the New Source Performance Standard, 40 CFR 60, Subpart OOO, including testing of the stack (CD01) emissions and opacity testing from the building.
- (c) The Clay Preparation Dust Collector (CD02) has applicable compliance determination conditions as specified below:
 - (1) Within 180 days of startup, but no more than 60 days after reaching maximum production, in order to demonstrate compliance with the PM limitation established by 326 IAC 6.5-1-2, the Permittee shall perform PM testing for the Clay Preparation Dust Collector (CD02) stack 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.
 - (2) Within 180 days of startup, but no more than 60 days after reaching maximum production, in order to demonstrate compliance with the 0.316 pounds of PM per ton processed limitation in the permit and the 0.0109 pounds of PM10 per ton processed limitation in the permit, the Permittee shall perform PM and PM10 testing for the Dry Injection Fabric Filter (CD01) stack 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. PM10 includes filterable and condensable PM10. Testing shall be conducted in accordance with Section C - Performance Testing.

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

- (a) The Clay Preparation Dust Collector (CD02) has applicable compliance monitoring conditions as specified below:
 - (1) Visible emissions notations of the Clay Preparation Dust Collector stack exhaust 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 startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. If condition exists which should result in a response step, 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.
 - (2) The Permittee shall record the pressure drop across the Clay Preparation Dust Collector, at least once per day when the scalping screen, screens, processing belt conveyors, impact crusher, or screw conveyors are in operation. When for any one reading, the pressure drop across the dust collector is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with

Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

These monitoring conditions are necessary because the Clay Preparation Dust Collector must operate properly to ensure compliance with 326 IAC 2-2 (PSD) and 326 IAC 6.5-1-2 (Particulate Emission Limitations).

- (b) The Dry Injection Fabric Filter (DIFF) (CD01) has applicable compliance monitoring conditions as specified below:
- (1) Visible emissions notations of the Dry Injection Fabric Filter stack exhaust 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 startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. If condition exists which should result in a response step, 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.
 - (2) The Permittee shall continuously monitor the dry lime feed rate to the Dry Injection Fabric Filter. When for any one reading the feed rate is below 85 pounds per hour, or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.
 - (3) The Permittee shall record the pressure drop across the scrubber and dry lime injection baghouse combination used in conjunction with the one (1) tunnel kiln at least once per day when the tunnel kiln is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 14.5 and 17.5 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
 - (4) The Permittee shall inspect the dry lime feed system and feeder setting on the dry lime injection baghouse once per day. If the lime feeder setting drops below the level established during the latest performance test, the switches monitoring the interlock system on the limestone delivery systems, including the lime screw conveyor and holding bin, are not functioning properly, or the Permittee discovers cracks, holes or abnormal/excessive wear on the indicators for the screw conveyor and holding bin, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A feeder setting that is below the level established during the latest performance test is not a deviation from this permit. Failure to take response steps in accordance with

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

These monitoring conditions are necessary because the Dry Injection Fabric Filter must operate properly to ensure compliance with 40 CFR 64 (Compliance Assurance Monitoring), 326 IAC 2-2 (PSD) and 326 IAC 20-72 (Brick and Structural Clay Products Manufacturing).

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|--------------------------------------|
| Conclusion and Recommendation |
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The operation of this brick manufacturing plant shall be subject to the conditions of this Part 70 operating permit 167-23205-00139.

Company Name: Boral Brick Terre Haute Plant
 Address: 5599 E. Price Road, Terre Haute, Indiana 47802
 Permit Number: 167-23205
 Plant ID: 167-00139
 Reviewer: Rob Harmon

Emission Unit Group - Material Receiving (EUG-01)

120 Short term maximum rate (tons per hour)

Utilizing no control

| <i>Potential Emissions (maximum rate, 8760 hours per year)</i> | Before Control | | | | After Control | | |
|--|--------------------------------|----------------------------------|----------------------------|------------------------------|---------------|----------------------------|------------------------------|
| | PM Emission Factor (lb/ton) | PM10 Emission Factor (lb/ton) | Potential PM (ton/year) | Potential PM10 (ton/year) | Control Eff | Potential PM (ton/year) | Potential PM10 (ton/year) |
| Process Description: | | | | | | | |
| Dump Truck Unloading (MR01) | 0.053 | 0.04 | 27.86 | 21.02 | 0% | 27.86 | 21.02 |
| Receiving Material Apron Feeder (MR02) | 0.053 | 0.04 | 27.86 | 21.02 | 0% | 27.86 | 21.02 |
| Crude Material Belt Conveyors (3 units) (MR03) | 0.01 | 0.004 | 15.77 | 6.31 | 0% | 15.77 | 6.31 |
| Total | | | 71.48 | 48.36 | | 71.48 | 48.36 |

| <i>Limited Emissions (using limited throughput of 500,000 tons per year)</i> | | | | | | |
|--|--|--------------------------------|----------------------------------|-----------------------|--------------------------|----------------------------|
| Process Description: | Limited Maximum Throughput (ton/year) | PM Emission Factor (lb/ton) | PM10 Emission Factor (lb/ton) | Control Efficiency | Limited PM (ton/year) | Limited PM10 (ton/year) |
| Dump Truck Unloading (MR01) | 500,000 | 0.053 | 0.04 | 0.0% | 13.25 | 10.00 |
| Receiving Material Apron Feeder (MR02) | 500,000 | 0.053 | 0.04 | 0.0% | 13.25 | 10.00 |
| Crude Material Belt Conveyors (3 units) (MR03) | 500,000 | 0.01 | 0.004 | 0.0% | 7.50 | 3.00 |
| Total | | | | | 34.00 | 23.00 |

Methodology

Emission Factors from AP-42, Table 11.9-1 (MR01 and MR02) and 11.24-2 (MR03)

Before Control Potential Emission (ton/year) = Emission Factor (lb/ton) * Max Short Term Rate (ton/hr) * 8760 (hr/yr) / 2000 (lb/ton)

After Control Potential Emission (ton/year) = Before Control Emission (ton/year) * (1 - Control Efficiency)

Limited Emissions (ton/yr) = Limited Maximum Throughput (ton/yr) * Emission Factor (lb/ton) * (1 - Control Efficiency) / 2000 (lb/ton)

Company Name: Boral Brick Terre Haute Plant
 Address: 5599 E. Price Road, Terre Haute, Indiana 47802
 Permit Number: 167-23205
 Plant ID: 167-00139
 Reviewer: Rob Harmon

Emission Unit Group - Clay Grinding and Screening Operations (EUG-02)

120 Short term maximum rate (tons per hour)

Control is a dust collector (CD02) for those units which are actually controlled

| Potential Emissions (maximum rate, 8760 hours per year) | Before Control | | | | After Control | | |
|---|-----------------------------|-------------------------------|-------------------------|---------------------------|---------------|-------------------------|---------------------------|
| | PM Emission Factor (lb/ton) | PM10 Emission Factor (lb/ton) | Potential PM (ton/year) | Potential PM10 (ton/year) | Control Eff | Potential PM (ton/year) | Potential PM10 (ton/year) |
| Process Description: | | | | | | | |
| Primary Crusher (GR01) | 0.017 | 0.017 | 8.94 | 8.94 | 0.00% | 8.94 | 8.94 |
| Scalping Screen (GR02) | 8.5 | 0.53 | 4467.60 | 278.57 | 99.00% | 44.68 | 2.79 |
| Screens (bank of 3 units) (GR03) | 8.5 | 0.53 | 4467.60 | 278.57 | 99.00% | 44.68 | 2.79 |
| Processing Belt Conveyors (7 units) (GR04) | 0.01 | 0.004 | 36.79 | 14.72 | 99.00% | 0.37 | 0.15 |
| Impact Crusher (GR05) | 0.017 | 0.017 | 8.94 | 8.94 | 99.00% | 0.09 | 0.09 |
| Screw Conveyors (2 units) (GR06) | 0.01 | 0.004 | 10.51 | 4.20 | 99.00% | 0.11 | 0.04 |
| Raw Material Bin (GR07) | 0.053 | 0.04 | 27.86 | 21.02 | 0.00% | 27.86 | 21.02 |
| Raw Material Feeder (GR08) | 0.025 | 0.002 | 13.14 | 1.05 | 0.00% | 13.14 | 1.05 |
| Total | | | 9041.37 | 616.00 | | 139.85 | 36.86 |

| Limited Emissions (using limited throughput of 500,000 tons per year) | Limited Maximum | PM Emission | PM10 Emission | Control | Limited PM | Limited PM10 |
|---|-----------------------|-----------------|-----------------|------------|------------|--------------|
| | Throughput (ton/year) | Factor (lb/ton) | Factor (lb/ton) | Efficiency | (ton/year) | (ton/year) |
| Process Description: | | | | | | |
| Primary Crusher (GR01) | 500,000 | 0.017 | 0.017 | 0.0% | 4.25 | 4.25 |
| Scalping Screen (GR02) | 500,000 | 8.5 | 0.53 | 99.00% | 21.25 | 1.33 |
| Screens (bank of 3 units) (GR03) | 500,000 | 8.5 | 0.53 | 99.00% | 21.25 | 1.33 |
| Processing Belt Conveyors (7 units) (GR04) | 500,000 | 0.01 | 0.004 | 99.00% | 0.18 | 0.07 |
| Impact Crusher (GR05) | 500,000 | 0.017 | 0.017 | 99.00% | 0.04 | 0.04 |
| Screw Conveyors (2 units) (GR06) | 500,000 | 0.01 | 0.004 | 99.00% | 0.05 | 0.02 |
| Raw Material Bin (GR07) | 500,000 | 0.053 | 0.04 | 0.00% | 13.25 | 10.00 |
| Raw Material Feeder (GR08) | 500,000 | 0.025 | 0.002 | 0.00% | 6.25 | 0.50 |
| Total | | | | | 66.52 | 17.53 |

Methodology

Emission Factors from AP-42, Table 11.17-4 (GR01 and GR05), 11.3-1 (GR02, GR03, and GR08), 11.24-2 (GR04 and GR06), and 11.9-1 (GR07)

Before Control Potential Emission (ton/year) = Emission Factor (lb/ton) * Max Short Term Rate (ton/hr) * 8760 (hr/yr) / 2000 (lb/ton)

After Control Potential Emission (ton/year) = Before Control Emission (ton/year) * (1 - Control Efficiency)

Limited Emissions (ton/yr) = Limited Maximum Throughput (ton/yr) * Emission Factor (lb/ton) * (1 - Control Efficiency) / 2000 (lb/ton)

Company Name: Boral Brick Terre Haute Plant
 Address: 5599 E. Price Road, Terre Haute, Indiana 47802
 Permit Number: 167-23205
 Plant ID: 167-00139
 Reviewer: Rob Harmon

Emission Unit Group - Processed Clay (EUG-03)

120 Short term maximum rate (tons per hour)

Utilizing no control

| Potential Emissions (maximum rate, 8760 hours per year) | Before Control | | | | After Control | | |
|---|-----------------------------|-------------------------------|-------------------------|---------------------------|---------------|-------------------------|---------------------------|
| | PM Emission Factor (lb/ton) | PM10 Emission Factor (lb/ton) | Potential PM (ton/year) | Potential PM10 (ton/year) | Control Eff | Potential PM (ton/year) | Potential PM10 (ton/year) |
| Process Description: | | | | | | | |
| Processed Clay Bunker Filling (PC01) | 0.02 | 0.0014 | 10.51 | 0.74 | 0.00% | 10.51 | 0.74 |
| Reclaimer (PC02) | 0.025 | 0.0023 | 13.14 | 1.21 | 0.00% | 13.14 | 1.21 |
| Processed Clay Feed Conveyors (3 units) (PC03) | 0.01 | 0.004 | 5.26 | 2.10 | 0.00% | 5.26 | 2.10 |
| Reclaimer by-pass chute (PC04) | 0.01 | 0.004 | 5.26 | 2.10 | 0.00% | 5.26 | 2.10 |
| Total | | | 34.16 | 6.15 | | 34.16 | 6.15 |

| Limited Emissions (using limited throughput of 500,000 tons per year) | | | | | | |
|---|---------------------------------------|-----------------------------|-------------------------------|--------------------|-----------------------|-------------------------|
| Process Description: | Limited Maximum Throughput (ton/year) | PM Emission Factor (lb/ton) | PM10 Emission Factor (lb/ton) | Control Efficiency | Limited PM (ton/year) | Limited PM10 (ton/year) |
| Processed Clay Bunker Filling (PC01) | 500,000 | 0.02 | 0.0014 | 0.00% | 5.00 | 0.35 |
| Reclaimer (PC02) | 500,000 | 0.025 | 0.0023 | 0.00% | 6.25 | 0.58 |
| Processed Clay Feed Conveyors (3 units) (PC03) | 500,000 | 0.01 | 0.004 | 0.00% | 2.50 | 1.00 |
| Reclaimer by-pass chute (PC04) | 500,000 | 0.01 | 0.004 | 0.00% | 2.50 | 1.00 |
| Total | | | | | 16.25 | 2.93 |

Methodology

Emission Factors from AP-42, Table 11.19-2 (PC01), 11.3-2 (PC02), 11.24-2 (PC03 and PC04)

Before Control Potential Emission (ton/year) = Emission Factor (lb/ton) * Max Short Term Rate (ton/hr) * 8760 (hr/yr) / 2000 (lb/ton)

After Control Potential Emission (ton/year) = Before Control Emission (ton/year) * (1 - Control Efficiency)

Limited Emissions (ton/yr) = Limited Maximum Throughput (ton/yr) * Emission Factor (lb/ton) * (1 - Control Efficiency) / 2000 (lb/ton)

Company Name: Boral Brick Terre Haute Plant
 Address: 5599 E. Price Road, Terre Haute, Indiana 47802
 Permit Number: 167-23205
 Plant ID: 167-00139
 Reviewer: Rob Harmon

Emission Unit Group - Sand Handling (EUG-04)

Utilizing no control

1.25 Short term maximum rate (tons per hour)

| <i>Potential Emissions (maximum rate, 8760 hours per year)</i> | Before Control | | | | After Control | | |
|--|--------------------------------|----------------------------------|----------------------------|------------------------------|---------------|----------------------------|------------------------------|
| | PM Emission Factor (lb/ton) | PM10 Emission Factor (lb/ton) | Potential PM (ton/year) | Potential PM10 (ton/year) | Control Eff | Potential PM (ton/year) | Potential PM10 (ton/year) |
| Process Description: Sand (supersack) (SD01) (max 30 ton per day) | 0.07 | 0.03 | 0.38 | 0.16 | 0.00% | 0.38 | 0.16 |
| Total | | | 0.38 | 0.16 | | 0.38 | 0.16 |

| <i>Limited Emissions (using limited throughput of 500,000 tons per year)</i> | | | | | | |
|--|--|--------------------------------|----------------------------------|-----------------------|--------------------------|----------------------------|
| Process Description: | Limited Maximum Throughput (ton/year) | PM Emission Factor (lb/ton) | PM10 Emission Factor (lb/ton) | Control Efficiency | Limited PM (ton/year) | Limited PM10 (ton/year) |
| Sand (supersack) (SD01) (max 30 ton per day) | 780 | 0.07 | 0.03 | 0.00% | 0.03 | 0.01 |
| Total | | | | | 0.03 | 0.01 |

Methodology

Emission Factors from AP-42, Table 11.19-2 (PC01), 11.3-2 (PC02), 11.24-2 (PC03 and PC04)

Before Control Potential Emission (ton/year) = Emission Factor (lb/ton) * Max Short Term Rate (ton/hr) * 8760 (hr/yr) / 2000 (lb/ton)

After Control Potential Emission (ton/year) = Before Control Emission (ton/year) * (1 - Control Efficiency)

Limited Emissions (ton/yr) = Limited Maximum Throughput (ton/yr) * Emission Factor (lb/ton) * (1 - Control Efficiency) / 2000 (lb/ton)

Company Name: Boral Brick Terre Haute Plant
 Address: 5599 E. Price Road, Terre Haute, Indiana 47802
 Permit Number: 167-23205
 Plant ID: 167-00139
 Reviewer: Rob Harmon

Emission Unit Group - Tile Forming and Firing (EUG-05)

Tunnel Dryer #1 (EU01)
 26 Short term maximum rate (tons per hour)
 0.03 Emission Factor (pound VOC per ton)
 3.42 Ton VOC potential

Tunnel Dryer #1 (EU01) Natural Gas Booster Burner
 Heat Input Capacity Potential Throughput
 MMBtu/hr MMCF/yr

| | |
|-------|------|
| 5.953 | 52.1 |
|-------|------|

| | Pollutant | | | | | |
|-------------------------------|-----------|-------|-----|----------------------|-----|------|
| | PM* | PM10* | SO2 | NOx | VOC | CO |
| Emission Factor in lb/MMCF | 1.9 | 7.6 | 0.6 | 100.0 **see below | 5.5 | 84.0 |
| Potential Emission in tons/yr | 0.0 | 0.2 | 0.0 | 2.6 | 0.1 | 2.2 |

*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 1-03-006-0 (SUPPLEMENT D 3/98)
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
 See page 7 for HAPs emissions calculations.

Company Name: Boral Brick Terre Haute Plant
 Address: 5599 E. Price Road, Terre Haute, Indiana 47802
 Permit Number: 167-23205
 Plant ID: 167-00139
 Reviewer: Rob Harmon

Emission Unit Group - Tile Forming and Firing (EUG-07)

Tunnel Dryer #1 (EU01)
 26 Short term maximum rate (tons per hour)
 0.03 Emission Factor (pound VOC per ton)
 3.42 Ton VOC potential

Tunnel Dryer #1 (EU01) Natural Gas Booster Burner

| | | HAPs - Organics | | | | |
|-------------------------------|--|-----------------|-----------------|--------------|-----------|-----------|
| | | Benzene | Dichlorobenzene | Formaldehyde | Hexane | Toluene |
| Emission Factor in lb/MMcf | | 2.1E-03 | 1.2E-03 | 7.5E-02 | 1.8E+00 | 3.4E-03 |
| Potential Emission in tons/yr | | 5.476E-05 | 3.129E-05 | 1.956E-03 | 4.693E-02 | 8.865E-05 |

| | | HAPs - Metals | | | | |
|-------------------------------|--|---------------|-----------|-----------|-----------|-----------|
| | | Lead | Cadmium | Chromium | Manganese | Nickel |
| Emission Factor in lb/MMcf | | 5.0E-04 | 1.1E-03 | 1.4E-03 | 3.8E-04 | 2.1E-03 |
| Potential Emission in tons/yr | | 1.304E-05 | 2.868E-05 | 3.650E-05 | 9.908E-06 | 5.476E-05 |

Methodology is the same as page 6.

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

Company Name: Boral Brick Terre Haute Plant
 Address: 5599 E. Price Road, Terre Haute, Indiana 47802
 Permit Number: 167-23205
 Plant ID: 167-00139
 Reviewer: Rob Harmon

Emission Unit Group - Tile Forming and Firing (EUG-05)

Tunnel Kiln #1 (EU02) Natural Gas Scenario

26 maximum short term throughput (ton per hour)

| Pollutant | Emission Factor (lb/ton) | Pot. Emission (ton/year) | Control Efficiency | Pot. Emission After Control |
|----------------------------|-----------------------------|-----------------------------|-----------------------|--------------------------------|
| PM | 0.12 | 13.67 | | 13.67 |
| PM10 | 0.87 | 99.08 | | 99.08 |
| CO | 1.2 | 136.66 | | 136.66 |
| NOx | 0.35 | 39.86 | | 39.86 |
| SO2 | 4.69 | 534.10 | 55% | 240.34 |
| VOC | 0.024 | 2.73 | | 2.73 |
| SO2 (bypass) 123 hr | 4.69 | 7.50 | | 7.50 |
| Hydrofluoric Acid | 0.37 | 42.14 | 90% | 4.21 |
| Hydrochloric Acid | 0.17 | 19.36 | 85% | 2.90 |
| 1,1,1-Trichloroethane | 4.70E-06 | 5.35E-04 | | 5.35E-04 |
| 1,4-Dichlorobenzene | 4.80E-05 | 5.47E-03 | | 5.47E-03 |
| 2-butanone | 2.20E-04 | 2.51E-02 | | 2.51E-02 |
| Benzene | 2.90E-03 | 3.30E-01 | | 3.30E-01 |
| Bis(2-ethylhexyl)phthalate | 2.00E-03 | 2.28E-01 | | 2.28E-01 |
| Carbon disulfide | 4.30E-05 | 4.90E-03 | | 4.90E-03 |
| Chlorine | 1.30E-03 | 1.48E-01 | | 1.48E-01 |
| Chloroethane | 5.70E-04 | 6.49E-02 | | 6.49E-02 |
| Chloromethane | 6.70E-04 | 7.63E-02 | | 7.63E-02 |
| Di-n-butylphthalate | 1.40E-04 | 1.59E-02 | | 1.59E-02 |
| Ethylbenzene | 4.40E-05 | 5.01E-03 | | 5.01E-03 |
| m-/p- Xylene | 6.70E-05 | 7.63E-03 | | 7.63E-03 |
| o-Xylene | 5.80E-05 | 6.61E-03 | | 6.61E-03 |
| Iodomethane | 9.30E-05 | 1.06E-02 | | 1.06E-02 |
| Naphthalene | 6.50E-05 | 7.40E-03 | | 7.40E-03 |
| Phenol | 8.60E-05 | 9.79E-03 | | 9.79E-03 |
| Styrene | 2.00E-05 | 2.28E-03 | | 2.28E-03 |
| Tetrachloroethylene | 2.80E-06 | 3.19E-04 | | 3.19E-04 |
| Toluene | 1.60E-04 | 1.82E-02 | | 1.82E-02 |
| Antimony | 2.70E-05 | 3.07E-03 | | 3.07E-03 |
| Arsenic | 3.10E-05 | 3.53E-03 | | 3.53E-03 |
| Beryllium | 4.20E-07 | 4.78E-05 | | 4.78E-05 |
| Cadmium | 1.50E-05 | 1.71E-03 | | 1.71E-03 |
| Chromium | 5.10E-05 | 5.81E-03 | | 5.81E-03 |
| Cobalt | 2.10E-06 | 2.39E-04 | | 2.39E-04 |
| Lead | 1.50E-04 | 1.71E-02 | | 1.71E-02 |
| Manganese | 2.90E-04 | 3.30E-02 | | 3.30E-02 |
| Mercury | 7.50E-06 | 8.54E-04 | | 8.54E-04 |
| Nickel | 7.20E-05 | 8.20E-03 | | 8.20E-03 |
| Selenium | 2.30E-04 | 2.62E-02 | | 2.62E-02 |
| Total HAPs | | 62.56 | | 8.18 |

Methodology

Emission Factors from AP-42, Table 11.3-4, 11.3-6, 11.3-7, Control efficiencies based on manufacturer data

PM emission factor, and HF, HCl control efficiencies based on MACT limitation

SO2 emission factor based on Boral testing at a similar kiln

Before Control Potential Emission (ton/year) = Emission Factor (lb/ton) * Max Short Term Rate (ton/hr) * 8760 (hr/yr) / 2000 (lb/ton)

After Control Potential Emission (ton/year) = Before Control Emission (ton/year) * (1 - Control Efficiency)

Company Name: Boral Brick Terre Haute Plant
 Address: 5599 E. Price Road, Terre Haute, Indiana 47802
 Permit Number: 167-23205
 Plant ID: 167-00139
 Reviewer: Rob Harmon

Emission Unit Group - Tile Forming and Firing (EUG-05)

Tunnel Kiln #1 (EU02) Landfill Gas Scenario

26 maximum short term throughput (ton per hour)

| Pollutant | Emission Factor (lb/ton) | Pot. Emission (ton/year) | Control Efficiency | Pot. Emission After Control |
|----------------------------|--------------------------|--------------------------|--------------------|-----------------------------|
| PM | 0.12 | 13.67 | | 13.67 |
| PM10 | 0.87 | 99.08 | | 99.08 |
| CO | 1.2 | 136.66 | | 136.66 |
| NOx | 0.35 | 39.86 | | 39.86 |
| SO2 | 4.69 | 534.10 | 55% | 240.34 |
| VOC | 0.024 | 2.73 | | 2.73 |
| Hydrofluoric Acid | 0.37 | 42.14 | 90% | 4.21 |
| Hydrochloric Acid | 0.17 | 19.36 | 85% | 2.90 |
| 1,1,1-Trichloroethane | 4.70E-06 | 5.35E-04 | | 5.35E-04 |
| 1,4-Dichlorobenzene | 4.80E-05 | 5.47E-03 | | 5.47E-03 |
| 2-butanone | 2.20E-04 | 2.51E-02 | | 2.51E-02 |
| Benzene | 2.90E-03 | 3.30E-01 | | 3.30E-01 |
| Bis(2-ethylhexyl)phthalate | 2.00E-03 | 2.28E-01 | | 2.28E-01 |
| Carbon disulfide | 4.30E-05 | 4.90E-03 | | 4.90E-03 |
| Chlorine | 1.30E-03 | 1.48E-01 | | 1.48E-01 |
| Chloroethane | 5.70E-04 | 6.49E-02 | | 6.49E-02 |
| Chloromethane | 6.70E-04 | 7.63E-02 | | 7.63E-02 |
| Di-n-butylphthalate | 1.40E-04 | 1.59E-02 | | 1.59E-02 |
| Ethylbenzene | 4.40E-05 | 5.01E-03 | | 5.01E-03 |
| m-/p- Xylene | 6.70E-05 | 7.63E-03 | | 7.63E-03 |
| o-Xylene | 5.80E-05 | 6.61E-03 | | 6.61E-03 |
| Iodomethane | 9.30E-05 | 1.06E-02 | | 1.06E-02 |
| Naphthalene | 6.50E-05 | 7.40E-03 | | 7.40E-03 |
| Phenol | 8.60E-05 | 9.79E-03 | | 9.79E-03 |
| Styrene | 2.00E-05 | 2.28E-03 | | 2.28E-03 |
| Tetrachloroethylene | 2.80E-06 | 3.19E-04 | | 3.19E-04 |
| Toluene | 1.60E-04 | 1.82E-02 | | 1.82E-02 |
| Antimony | 2.70E-05 | 3.07E-03 | | 3.07E-03 |
| Arsenic | 3.10E-05 | 3.53E-03 | | 3.53E-03 |
| Beryllium | 4.20E-07 | 4.78E-05 | | 4.78E-05 |
| Cadmium | 1.50E-05 | 1.71E-03 | | 1.71E-03 |
| Chromium | 5.10E-05 | 5.81E-03 | | 5.81E-03 |
| Cobalt | 2.10E-06 | 2.39E-04 | | 2.39E-04 |
| Lead | 1.50E-04 | 1.71E-02 | | 1.71E-02 |
| Manganese | 2.90E-04 | 3.30E-02 | | 3.30E-02 |
| Mercury | 7.50E-06 | 8.54E-04 | | 8.54E-04 |
| Nickel | 7.20E-05 | 8.20E-03 | | 8.20E-03 |
| Selenium | 2.30E-04 | 2.62E-02 | | 2.62E-02 |
| Total HAPs | | 62.56 | | 8.18 |

Methodology

Emission Factors from AP-42, Table 11.3-4, 11.3-6, 11.3-7, Control efficiencies based on manufacturer data

PM emission factor, and HF, HCl control efficiencies based on MACT limitation

SO2 emission factor based on Boral testing at a similar kiln

Before Control Potential Emission (ton/year) = Emission Factor (lb/ton) * Max Short Term Rate (ton/hr) * 8760 (hr/yr) / 2000 (lb/ton)

After Control Potential Emission (ton/year) = Before Control Emission (ton/year) * (1 - Control Efficiency)

Company Name Boral Brick Terre Haute Plant
 Address: 5599 E. Price Road, Terre Haute, Indiana 47802
 Permit Number: 167-23205
 Plant ID: 167-00139
 Reviewer: Rob Harmon

Emission Unit Group - Tile Forming and Firing (EUG-05)

Summary - Before Control

| Process: | Pollutant | | | | | |
|------------------------------|-----------|-------|--------|-------|------|--------|
| | PM | PM10 | SO2 | NOx | VOC | CO |
| Tunnel Dryer - VOC | | | | | 3.42 | |
| Tunnel Dryer - NG Combustion | 0.05 | 0.20 | 0.02 | 2.61 | 0.14 | 2.19 |
| Tunnel Kiln | 13.67 | 99.08 | 534.10 | 39.86 | 2.73 | 136.66 |
| Total | 13.72 | 99.27 | 534.11 | 42.47 | 6.29 | 138.85 |

Summary - After Control

| Process: | Pollutant | | | | | |
|------------------------------|-----------|-------|--------|-------|------|--------|
| | PM | PM10 | SO2 | NOx | VOC | CO |
| Tunnel Dryer - VOC | | | | | 3.42 | |
| Tunnel Dryer - NG Combustion | 0.05 | 0.20 | 0.02 | 2.61 | 0.14 | 2.19 |
| Tunnel Kiln | 13.67 | 99.08 | 240.34 | 39.86 | 2.73 | 136.66 |
| Total | 13.72 | 99.27 | 240.36 | 42.47 | 6.29 | 138.85 |

Methodology

Summation of each pollutant (ton/yr) for each process to generate a total for the Emission Unit Group (EUG-05)

Company Name Boral Brick Terre Haute Plant
 Address: 5599 E. Price Road, Terre Haute, Indiana 47802
 Permit Number: 167-23205
 Plant ID: 167-00139
 Reviewer: Rob Harmon

Emission Unit Group - Tile Forming and Firing (EUG-05)

Also equal to the sourcewide HAP emissions, since all HAPs come from this EUG

| Specific HAP | Before Control | | | After Control | | |
|--------------------------|----------------|-------------|----------|---------------|-------------|----------|
| | Tunnel Dryer | Tunnel Kiln | Total | Tunnel Dryer | Tunnel Kiln | Total |
| Hydrofluoric Acid | | 42.14 | 42.14 | | 4.21 | 4.21 |
| Hydrochloric Acid | | 19.36 | 19.36 | | 2.90 | 2.90 |
| 1,1,1-Trichloroethane | | 5.35E-04 | 5.35E-04 | | 5.35E-04 | 5.35E-04 |
| 1,4-Dichlorobenzene | 3.13E-05 | 5.47E-03 | 5.50E-03 | 3.13E-05 | 5.47E-03 | 5.50E-03 |
| 2-butanone | | 2.51E-02 | 2.51E-02 | | 2.51E-02 | 2.51E-02 |
| Benzene | 5.48E-05 | 3.30E-01 | 3.30E-01 | 5.48E-05 | 3.30E-01 | 3.30E-01 |
| Bis(2-ethylhexy)phtalate | | 2.28E-01 | 2.28E-01 | | 2.28E-01 | 2.28E-01 |
| Carbon disulfide | | 4.90E-03 | 4.90E-03 | | 4.90E-03 | 4.90E-03 |
| Chlorine | | 1.48E-01 | 1.48E-01 | | 1.48E-01 | 1.48E-01 |
| Chloroethane | | 6.49E-02 | 6.49E-02 | | 6.49E-02 | 6.49E-02 |
| Chloromethane | | 7.63E-02 | 7.63E-02 | | 7.63E-02 | 7.63E-02 |
| Di-n-butylphtalate | | 1.59E-02 | 1.59E-02 | | 1.59E-02 | 1.59E-02 |
| Ethylbenzene | | 5.01E-03 | 5.01E-03 | | 5.01E-03 | 5.01E-03 |
| m-/p- Xylene | | 7.63E-03 | 7.63E-03 | | 7.63E-03 | 7.63E-03 |
| o-Xylene | | 6.61E-03 | 6.61E-03 | | 6.61E-03 | 6.61E-03 |
| Iodomethane | | 1.06E-02 | 1.06E-02 | | 1.06E-02 | 1.06E-02 |
| Naphthalene | | 7.40E-03 | 7.40E-03 | | 7.40E-03 | 7.40E-03 |
| Phenol | | 9.79E-03 | 9.79E-03 | | 9.79E-03 | 9.79E-03 |
| Styrene | | 2.28E-03 | 2.28E-03 | | 2.28E-03 | 2.28E-03 |
| Tetrachloroethylene | | 3.19E-04 | 3.19E-04 | | 3.19E-04 | 3.19E-04 |
| Toluene | 8.87E-05 | 1.82E-02 | 1.83E-02 | 8.87E-05 | 1.82E-02 | 1.83E-02 |
| Antimony | | 3.07E-03 | 3.07E-03 | | 3.07E-03 | 3.07E-03 |
| Arsenic | | 3.53E-03 | 3.53E-03 | | 3.53E-03 | 3.53E-03 |
| Beryllium | | 4.78E-05 | 4.78E-05 | | 4.78E-05 | 4.78E-05 |
| Cadmium | 2.87E-05 | 1.71E-03 | 1.74E-03 | 2.87E-05 | 1.71E-03 | 1.74E-03 |
| Chromium | 3.65E-05 | 5.81E-03 | 5.84E-03 | 3.65E-05 | 5.81E-03 | 5.84E-03 |
| Cobalt | | 2.39E-04 | 2.39E-04 | | 2.39E-04 | 2.39E-04 |
| Lead | 1.30E-05 | 1.71E-02 | 1.71E-02 | 1.30E-05 | 1.71E-02 | 1.71E-02 |
| Manganese | 9.91E-06 | 3.30E-02 | 3.30E-02 | 9.91E-06 | 3.30E-02 | 3.30E-02 |
| Mercury | | 8.54E-04 | 8.54E-04 | | 8.54E-04 | 8.54E-04 |
| Nickel | 5.48E-05 | 8.20E-03 | 8.25E-03 | 5.48E-05 | 8.20E-03 | 8.25E-03 |
| Selenium | | 2.62E-02 | 2.62E-02 | | 2.62E-02 | 2.62E-02 |
| Formaldehyde | 1.96E-03 | | 1.96E-03 | 1.96E-03 | | 1.96E-03 |
| Hexane | 4.69E-02 | | 4.69E-02 | 4.69E-02 | | 4.69E-02 |
| Total HAPs | 0.05 | 62.56 | 62.61 | 0.05 | 8.18 | 8.23 |

Methodology

Summation of each pollutant (ton/yr) for each process to generate a total for the Emission Unit Group (EUG-05)

Company Name: Boral Brick Terre Haute Plant
Address: 5599 E. Price Road, Terre Haute, Indiana 47802
Permit Number: 167-23205
Plant ID: 167-00139
Reviewer: Rob Harmon

Calculation of maximum short term PM limit for Dust Collector CD02

25 tons per year (threshold for CD02 emissions where 326 IAC 1-7 would apply)
500000 Limited throughput (tons per year)
0.1 pounds PM emitted per ton processed limitation

Methodology

PM Limitation (lb PM / ton processed) = Maximum emissions (tons / year) * 2000 (pounds / ton) / Limited throughput (ton / year)

Company Name Boral Brick Terre Haute Plant

Address: 5599 E. Price Road, Terre Haute, Indiana 47802

Permit Number: 167-23205

Plant ID: 167-00139

Reviewer: Rob Harmon

Potential to Emit Summary (Criteria Pollutants, After Control)

| Process Description | Pollutant | | | | | | | HF | HCl |
|---|-----------|--------|--------|-------|------|--------|------|------|-----|
| | PM | PM10 | SO2 | NOx | VOC | CO | | | |
| Emission Unit Group - Material Receiving (EUG-01) | 71.48 | 48.36 | | | | | | | |
| Emission Unit Group - Clay Grinding and Screening Operations (EUG-02) | 139.85 | 36.86 | | | | | | | |
| Emission Unit Group - Processed Clay (EUG-03) | 34.16 | 6.15 | | | | | | | |
| Emission Unit Group - Sand Handling (EUG-04) | 0.38 | 0.16 | | | | | | | |
| Emission Unit Group - Tile Forming and Firing (EUG-05) | 13.72 | 99.27 | 247.86 | 42.47 | 6.29 | 138.85 | 4.21 | 2.90 | |
| Total | 259.59 | 190.80 | 247.86 | 42.47 | 6.29 | 138.85 | 4.21 | 2.90 | |

Potential to Emit Summary (Criteria Pollutants, After Control and Limitations)

| Process Description | Pollutant | | | | | | | HF | HCl |
|---|-----------|--------|--------|-------|------|--------|------|------|-----|
| | PM | PM10 | SO2 | NOx | VOC | CO | | | |
| Emission Unit Group - Material Receiving (EUG-01) | 34.00 | 23.00 | | | | | | | |
| Emission Unit Group - Clay Grinding and Screening Operations (EUG-02) | 48.75 | 17.53 | | | | | | | |
| Emission Unit Group - Processed Clay (EUG-03) | 16.25 | 2.93 | | | | | | | |
| Emission Unit Group - Sand Handling (EUG-04) | 0.03 | 0.01 | | | | | | | |
| Emission Unit Group - Tile Forming and Firing (EUG-05) | 13.72 | 99.27 | 247.86 | 42.47 | 6.29 | 138.85 | 4.21 | 2.90 | |
| Total | 112.74 | 142.74 | 247.86 | 42.47 | 6.29 | 138.85 | 4.21 | 2.90 | |

Company Name Boral Brick Terre Haute Plant
 Address: 5599 E. Price Road, Terre Haute, Indiana 47802
 Permit Number: 167-23205
 Plant ID: 167-00139
 Reviewer: Rob Harmon

Potential to Emit Summary (Criteria Pollutants, Before Control or Limitation)

| Process Description | Pollutant | | | | | | | HF | HCl |
|---|----------------|---------------|---------------|--------------|-------------|---------------|--------------|--------------|-----|
| | PM | PM10 | SO2 | NOx | VOC | CO | | | |
| Emission Unit Group - Material Receiving (EUG-01) | 71.48 | 48.36 | | | | | | | |
| Emission Unit Group - Clay Grinding and Screening Operations (EUG-02) | 9041.37 | 616.00 | | | | | | | |
| Emission Unit Group - Processed Clay (EUG-03) | 34.16 | 6.15 | | | | | | | |
| Emission Unit Group - Sand Handling (EUG-04) | 0.38 | 0.16 | | | | | | | |
| Emission Unit Group - Tile Forming and Firing (EUG-05) | 13.72 | 99.27 | 534.11 | 42.47 | 6.29 | 138.85 | 42.14 | 19.36 | |
| Total | 9161.12 | 769.95 | 534.11 | 42.47 | 6.29 | 138.85 | 42.14 | 19.36 | |

*Minor Source Criteria Pollutant Modeling
Screening Form - Modeling Results*

Permit Summary

Permit Number: T 167-23205-00139
 Company Name: Boral Bricks Terre Haute Plant
 Source Location: 5599 E. Price Road, Terre Haute, Indiana 47802
 County: Vigo County
 SIC Code: 3251
 Permit Reviewer: Rob Harmon

Modeling Method

Model Used (please check one):

SCREEN3 AERSCREEN
 ISC3 AERMOD

Date Modeling Completed: 6/12/2007

Modeler: Rob Harmon

Modeling Results

TABLE 5 - Pollutants Modeling Results: 1 Hour Concentration ($\mu\text{g}/\text{m}^3$):

The modeled concentrations in this table are the 1-hour concentrations for each pollutant. Use tables 6 and 7 to compare the modeled data to the air quality standard.

| Pollutant: | CO | NO _x | PM ₁₀ | Pb | SO ₂ |
|---|-------|-----------------|------------------|----|-----------------|
| Concentration ($\mu\text{g}/\text{m}^3$): | 23.96 | 7.328 | 361.55 | | 9.22E+01 |

TABLE 6 - Pollutants Maximum Concentration ($\mu\text{g}/\text{m}^3$):

| Averaging Period | CO | NO _x | PM ₁₀ | Pb | SO ₂ |
|------------------------------------|--------------|-----------------|------------------|------------|-----------------|
| 1-hour modeled concentration | 23.96 | | | | |
| NAAQ Standard | 40000 | | | | |
| PASS or FAIL | PASS | | | | |
| 3-hour modeled concentration | | | | | 82.944 |
| NAAQ Standard | | | | | 1300 |
| PASS or FAIL | | | | | PASS |
| 8-hour modeled concentration | 16.772 | | | | |
| NAAQ Standard/CEP Benchmark | 10000 | | | | |
| PASS or FAIL | PASS | | | | |
| 24-hour modeled concentration | | | 144.62 | 0 | 36.864 |
| NAAQ Standard | | | 150 | 1.5 | 365 |
| PASS or FAIL | | | PASS | PASS | PASS |
| Annual modeled concentration | | 0.58624 | 28.924 | | 7.3728 |
| NAAQ Standard/CEP Benchmark | | 100 | 50 | | 80 |
| PASS or FAIL | | PASS | PASS | | PASS |