INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
*We make Indiana a cleaner, healthier place to live.*

*Mitchell E. Daniels, Jr.*
*Governor*

*Thomas W. Easterly*
*Commissioner*

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

TO: Interested Parties / Applicant

DATE: December 17, 2007

RE: Thermafiber, Inc. 169-21103-00009

FROM: Matthew Stuckey, Deputy Branch Chief
Permits Branch
Office of Air Quality

# Notice of Decision: Approval – Effective Immediately

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

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204.

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

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

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

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

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

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

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

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

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

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

Enclosures
FNTVOP.dot12/3/07

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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*Mitchell E. Daniels, Jr.*
Governor

*Thomas W. Easterly*
Commissioner

100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

# Part 70 Operating Permit Renewal
# OFFICE OF AIR QUALITY

## Thermafiber, Inc Wabash Plant
## 3711 Mill Street,
## Wabash, Indiana 46992

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

**The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.**

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

| Operation Permit No.: T169-21103-00009 | |
|---|---|
| Issued by: Original Signed By:<br><br>Matt Stuckey, Deputy Branch Chief<br>Permits Branch<br>Office of Air Quality | Issuance Date: December 17, 2007<br><br>Expiration Date: December 17, 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). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary Mineral Wool Manufacturing Source.

| | |
|---|---|
| Source Address: | 3711 Mill Street, Wabash, Indiana 46992 |
| Mailing Address: | 3711 Mill Street, Wabash, IN 46992 |
| General Source Phone Number: | 260-563-2111 |
| SIC Code: | 3296 |
| County Location: | Wabash |
| Source Location Status: | Attainment for all criteria pollutants |
| Source Status: | Part 70 Operating Permit Program<br>Major Source, under PSD Rules<br>Major Source, Section 112 of the Clean Air Act<br>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) One (1) coke-fueled cupola #2, identified as EU-P2, constructed in 1955, refurbished in 1995, natural gas supplemented, with a maximum capacity of 10.47 MMBtu/hr, equipped with a baghouse, exhausting through Stack S1, constructed in 2003, with a maximum capacity of 7.0 tons of minerals per hour.

(b) One (1) coke-fueled cupola #4, identified as EU-P4, constructed in 1955, and refurbished in 1994, natural gas supplemented, with a maximum capacity of 10.47 MMBtu/hr, equipped with a baghouse, exhausting through Stack S3, constructed in 2003, with a maximum capacity of 8.0 tons of minerals per hour.

(c) One (1) blowchamber #4, identified as EU-P6, constructed in 1955, equipped with a dry media filter, exhausting through Stack S4, constructed in 1992, with a maximum capacity of 8.0 tons of fiberized minerals and 0.1 tons of dedusting annealing oil per hour.

(d) One (1) natural gas-fired curing oven #2, identified as EU-P7, with a maximum capacity of 5.7 million British thermal units per hour, exhausting through Stack S5, constructed in 1955 and replaced in 1978, with a maximum capacity of 7.0 tons of fiberized minerals per hour and emissions controlled by regenerative thermal oxidizer, (RTO) constructed in 2002.

(e) One (1) blowchamber #2, identified as EU-P8, equipped a dry media filter, exhausting through Stack S6, constructed in 1955, replaced in 1978 and refurbished in 1999, with a maximum capacity of 7.0 tons of fiberized minerals and 1.4 tons of binder and water per hour.

(f) One (1) #2 line trimming/sizing section, identified as EU-P9, equipped with a baghouse, identified as CE7, exhausting through Stack S7 or inside the building, constructed in 1955, replaced in 1978, and reconditioned in 2003, with a maximum capacity of 7.0 tons of fiberized minerals per hour.

(g) One (1) #2 line cooling section, identified as EU-P10, exhausting through Stack S8, constructed in 1955, and replaced in 1978, with a maximum capacity of 7.0 tons of fiberized minerals per hour.

(h) One (1) natural gas-fired #1 boiler, identified as EU-P11, with a maximum capacity 12.5 million British thermal units per hour, exhausting through Stack S9, constructed in January 31, 1990.

(i) One (1) fiber bond cutting operation identified as emission unit EU-P30, with a maximum capacity of 1600 linear feet of board per hour and 10.4 tons of fiber board per hour, originally constructed in 2002 and approved to be modified in 2007, with two (2) cutting stations controlled by a fabric filter baghouse, identified as DC-30, exhausting either externally through stack S-23 or inside the building.

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

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

(1) (One (1) natural gas-fired boiler, identified as boiler #2, with a maximum at 4.5 million British thermal units per hour, exhausting through Stack 10, constructed in 1977 [326 IAC 6-2-3];

(2) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment [326 IAC 6-3-2]; and

(3) Conveyors as follows: covered conveyors for coke conveying of maximum capacity 80 tons of coke per day [326 IAC 6-3-2].

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); and

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

## SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, T169-21103-00009, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit or of permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

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

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

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

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

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

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

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

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by 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) A "responsible official" is defined at 326 IAC 2-7-1(34).

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

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

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

and

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

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

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

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)][326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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

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

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)

Facsimile Number: 317-233-6865

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

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

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

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

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

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

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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

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

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

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

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

(a) All terms and conditions of permits established prior to T169-21103-00009 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

(b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit, except for permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control)

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

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

B.15 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

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

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

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

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 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 determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

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

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

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

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

(b) A timely renewal application is one that is:

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12] [40 CFR 72]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Pursuant to 326 IAC 2-7-11(b) and 326 IAC 2-7-12(a), administrative Part 70 operating permit amendments and permit modifications for purposes of the acid rain portion of a Part 70 permit shall be governed by regulations promulgated under Title IV of the Clean Air Act. [40 CFR 72]

(c) Any application requesting an amendment or modification of this permit shall be submitted to:

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

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

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

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

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

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

and

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

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

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

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

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

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

(f) This condition does not apply to emission trades of $SO_2$ or $NO_X$ under 326 IAC 21 or 326 IAC 10-4.

B.21 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.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

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

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

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

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

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

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

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

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

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

**SECTION C SOURCE OPERATION CONDITIONS**

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

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

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

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

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

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

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

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 by using ambient air quality modeling pursuant to 326 IAC 1-7-4.

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

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

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

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

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

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

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

**Compliance Requirements [326 IAC 2-1.1-11]**

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

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

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

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

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

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

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

The notification which shall be submitted by the Permittee does require 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 prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on.

(b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

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

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

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

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

(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; 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, 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 reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

(a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year 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

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, on or before the date it is due.

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

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

(c) If there is a "project" (as defined in 326 IAC 2-2-1 (qq) and 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a Clean Unit, which is not part of a "major modification" (as defined in 326 IAC 2-2-1 (ee) and 326 IAC 2-3-1 (z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1 (rr) and 326 IAC 2-3-1 (mm)), the Permittee shall comply with following:

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

(A) A description of the project.

(B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.

(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:

(i) Baseline actual emissions;

(ii) Projected actual emissions;

(iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and 326 IAC 2-3-1(mm)(2)(A)(3); and

(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and

(3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

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

(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

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

**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:**

(a) One (1) coke-fueled cupola #2, identified as EU-P2, constructed in 1955, refurbished in 1995, natural gas supplemented, with a maximum capacity of 10.47 MMBtu/hr, equipped with a baghouse, exhausting through Stack S1, constructed in 2003, with a maximum capacity of 7.0 tons of minerals per hour;

(b) One (1) coke-fueled cupola #4, identified as EU-P4, constructed in 1955, and refurbished in 1994, natural gas supplemented, with a maximum capacity of 11.97 MMBtu/hr, equipped with a baghouse, exhausting through Stack S3, constructed in 2003, with a maximum capacity of 8.0 tons of minerals per hour;

(c) One (1) blowchamber #4, identified as EU-P6, constructed in 1955, equipped with a dry media filter, exhausting through Stack S4, constructed in 1992, with a maximum capacity of 8.0 tons of fiberized minerals and 0.1 tons of dedusting annealing oil per hour;

(d) One (1) natural gas-fired curing oven #2, identified as EU-P7, with a maximum capacity of 5.7 million British thermal units per hour, exhausting through Stack S5, constructed in 1955 and replaced in 1978, with a maximum capacity of 7.0 tons of fiberized minerals per hour and emissions controlled by regenerative thermal oxidizer, (RTO), constructed in 2002.

(e) One (1) blowchamber #2, identified as EU-P8, equipped a dry media filter, exhausting through Stack S6, constructed in 1955, replaced in 1978 and refurbished in 1999, with a maximum capacity of 7.0 tons of fiberized minerals and 1.4 tons of binder and water per hour;

(f) One (1) #2 line trimming/sizing section, identified as EU-P9, equipped with a baghouse, identified as CE7, exhausting through Stack S7 or inside the building, constructed in 1955, replaced in 1978, and reconditioned in 2003, with a maximum capacity of 7.0 tons of fiberized minerals per hour; and

(g) One (1) #2 line cooling section, identified as EU-P10, exhausting through Stack S8, constructed in 1955, and replaced in 1978, with a maximum capacity of 7.0 tons of fiberized minerals per hour.

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

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

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

Pursuant to 326 IAC 6-3-2(e), (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate matter emissions from the two (2) blowchambers, identified as EU-P6 and EU-P8, line trimmings/sizing section, identified as EU-P9 and #2 Line cooling section, identified as EU-P10, shall not exceed the emission limit shown in the table below:

| Operation | Process weight (tons/hr) | Allowable Limits (lbs/hr) |
|---|---|---|
| Blowchamber #4 EU-P6 | 8.1 | 16.7 |
| Blowchamber #2 EU-P8 | 8.4 | 17.1 |
| Line trimming/sizing section #2 EU-P9 | 7.0 | 15.1 |
| #2 Line cooling section EU-P10 | 7.0 | 15.1 |

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

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

Where:
P = process weight in tons/hr; and
E = rate of emission in pounds per hour.

D.1.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventative 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**

D.1.3 Particulate Matter (PM)

(a) Inorder to comply with Condition D.1.1, the baghouses for particulate control shall be in operation at all times when the #2 line trimming/size section are in operation.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also inclued 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.1.4 Particulate Matter (PM)

(a) Inorder to comply with Condition D.1.1, the media dry filters for particulate control shall be in operation at all times when the two (2) blowchambers, identified as EU-P6 and EU-P8 are in operation.

(b) In the event that filter failure is observed in a multi-compartment media dry filter, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also inclued 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.

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

D.1.5 Visible Emissions Notations

(a) Visible emission notations of the two (2) blowerchambers, identified as EU-P6 and EU-P8, line trimmings/sizing section, identified as EU-P9 and #2 line cooling section, identified as EU-P10 stack exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

The 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.1.6 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouse used in conjunction with the #2 line trimming/sizing section, at least once per day when the #2 line trimming/sizing section is in operation when exhausting to the atmosphere. When for any one reading, the pressure drop across the baghouse are outside the normal range of 1.2 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 and 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 and Exceedances shall be considered deviation from the permit.

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.1.7 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.

(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 emissions unit.

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.

D.1.8 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the dry media filters. To monitor the performance of the dry media filters, weekly observations shall be made of the particulate matter from the blowchamber stacks S4 and S6 while one or more of the blowchambers are in operation. If a 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.

(b) Monthly inspections shall be performed of the blowchamber emissions from the stacks and the particulate matter on the rooftops and the nearby ground. when there is a noticeable change in particulate matter emissions, or when evidence of particulate matter emission is observed, the Permittee shall take reasonable response steps in accordance with section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

D.1.9 Record Keeping Requirements

(a) To document compliance with Condition D.1.5, the Permittee shall maintain daily records of the visible emission notations of the two (2) blowerchambers, identified as EU-P6 and EU-P8, line trimmings/sizing section, identified as EU-P9 and #2 line cooling section, identified as EU-P10 stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (e.g. the process did not operate that day).

(b) To document compliance with Condition D.1.6 the Permittee shall maintain the daily records of the pressure drop across the baghouse controlling the #2 line trimming/sizing section. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).

(c) To document compliance with Condition D.1.8, the Permittee shall maintain a log of weekly particulate observations, and daily and monthly inspection of the filters.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit.

## SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

**Emissions Unit Description:**

(i) One (1) fiber bond cutting operation identified as emission unit EU-P30, with a maximum capacity of 1600 linear feet of board per hour and 10.4 tons of fiber board per hour, originally constructed in 2002 and approved to be modified in 2007, with two (2) cutting stations controlled by a fabric filter baghouse, identified as DC-30, exhausting either externally through stack S-23 or inside the building.

(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 PSD Minor Limits [326 IAC 2-2]

Pursuant to SSM 169-24879-00009, issued on September 18, 2007:

(a) The PM emissions from the fiber bond cutting, identified as unit EU-P30 shall be less than 5.7 pounds per hour. Compliance with this limit will limit the PM emissions to less than twenty-five (25) tons of per year and render the requirements of 326 IAC 2-2 (PSD) not applicable to 2002 modification.

(b) The $PM_{10}$ emissions from the fiber bond cutting, identified as unit EU-P30 shall be less than 3.42 pounds per hour. Compliance with this limit will limit the $PM_{10}$ emissions to less than fifteen (15) tons of per year and render the requirements of 326 IAC 2-2 (PSD) are applicable to 2002 modification.

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

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the fiber bond cutting operation, identified as EU-P30 shall not exceed 19.7 pounds per hour when operating at a process weight rate of 10.4 tons per hour. The pound per hour limitation was calculated with the following equation:

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

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

Where:

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

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

A Preventive Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the fiber bond cutting operation (EU-P30) and its control device.

**Compliance Determination Requirements**

D.2.4 Particulate Matter (PM)

(a) Inorder to comply with Conditions D.2.1 and D.2.2, the baghouses for PM control shall be in operation at all times when the fiber bond cutting operation (EU-P30) is in operation.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also inclued 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.

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

D.2.5 Visible Emissions Notations

(a) Visible emission notations of the fiber bond cutting operation stack exhaust (stack S23) shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps 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.2.6 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouse used in conjunction with the fiber bond cutting (EU-P30) operations, at least once per day when the fiber bond cutting (EU-P30) operation is in operation when exhausting to the atmosphere. When for any one reading, the pressure drop across the baghouse are outside the normal range of 1.0 and 7.0 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 and 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 and Exceedances shall be considered deviation from the permit.

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.2.7 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.

(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 emissions unit.

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 Requirements [326 IAC 2-8-4(3)]**

D.2.8 Record Keeping Requirements

(a) To document compliance with Condition D.2.5, the Permittee shall maintain daily records of the visible emission notations of the fiber bond cutting (EU-P30) operations stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (e.g. the process did not operate that day).

(b) To document compliance with Condition D.2.6 the Permittee shall maintain the daily records of the pressure drop across the baghouse controlling the fiber bond cutting (EU-P30) operations. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit.

**SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS**

**Emissions Unit Description: Boilers**

(h) One (1) natural gas-fired #1 boiler, identified as EU-P11, with a maximum capacity 12.5 million British thermal units per hour, exhausting through Stack S9, constructed in January 31, 1990; and

(i) (One (1) natural gas-fired boiler, identified as boiler #2, with a maximum at 4.5 million British thermal units per hour, exhausting through Stack 10, constructed in 1977 [326 IAC 6-2]. This boiler is an Insignificant activity.

(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 Matter (Particulate Emission Limitations for Sources of Indirect Heating) [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3(e), particulate matter (PM) emissions from Boiler #2 shall not exceed 0.6 pounds of PM per million British thermal units.

D.3.2 Particulate Matter (Particulate Emission Limitations for Sources of Indirect Heating) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4, particulate matter (PM) emissions from the #1 Boiler, identified as EU-P11 shall not exceed 0.522 pounds of PM per million British thermal units.

The limits were calculated using the equation below:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where:

Pt = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input; and

Q = Total source maximum operating capacity (MMBtu/hr) = 17 MMBtu/hr for #1 Boiler, identified as EU-P11.

D.3.3 General Provision Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for the #1 Boiler, identified as EU-P11 except as otherwise specified in 40 CFR Part 60, Subpart Dc.

(b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports 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

D.3.4 Standard of Performance for Small Industrial-Commercial Institutional Steam Generating Units [326 IAC 12-1] [40 CFR 60, Subpart Dc]

Pursuant to 40 CFR 60 Subpart Dc, the Permittee shall comply with the provisions of Standard of Performance for Small Industrial-Commercial Institutional Steam Generating Units for the #1 Boiler, identified as EU-P11 as specified as follows:

***§ 60.40c Applicability and delegation of authority.***

(a) Except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour (Btu/hr)) or less, but greater than or equal to 2.9 MW (10 million Btu/hr).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, §60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

Facility covered by an EPA approved State or Federal section 111(d)/129 plan implementing subpart BBBB of this part is not covered by this subpart.

[55 FR 37683, Sept. 12, 1990, as amended at 61 FR 20736, May 8, 1996; 71 FR 9884, Feb. 27, 2006]

***§ 60.41c Definitions.***

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

*Annual capacity factor* means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam generating unit been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.

*Coal* means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388–77, 90, 91, 95, or 98a, Standard Specification for Classification of Coals by Rank (IBR—see §60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels derived from coal for the purposes of creating useful heat, including but not limited to solvent refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

*Coal refuse* means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

*Cogeneration steam generating unit* means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.

*Combined cycle system* means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

*Combustion research* means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit (i.e., the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

*Conventional technology* means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

*Distillate oil* means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396–78, 89, 90, 92, 96, or 98, “Standard Specification for Fuel Oils” (incorporated by reference—see §60.17).

*Dry flue gas desulfurization technology* means a sulfur dioxide ($SO_2$) control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

*Duct burner* means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

*Emerging technology* means any $SO_2$ control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under §60.48c(a)(4).

*Federally enforceable* means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR Parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

*Fluidized bed combustion technology* means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

*Fuel pretreatment* means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

*Heat input* means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

*Heat transfer medium* means any material that is used to transfer heat from one point to another point.

*Maximum design heat input capacity* means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

*Natural gas* means (1) a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane, or (2) liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835–86, 87, 91, or 97, “Standard Specification for Liquefied Petroleum Gases” (incorporated by reference—see §60.17).

*Noncontinental area* means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

*Oil* means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

*Potential sulfur dioxide emission rate* means the theoretical $SO_2$emissions (nanograms per joule [ng/J], or pounds per million Btu [lb/million Btu] heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

*Process heater* means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

*Residual oil* means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396–78, 89, 90, 92, 96, or 98, “Standard Specification for Fuel Oils” (incorporated by reference—see §60.17).

*Steam generating unit* means a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

*Steam generating unit operating day* means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

*Wet flue gas desulfurization technology* means an $SO_2$control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

*Wet scrubber system* means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of particulate matter (PM) or $SO_2$.

*Wood* means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

[55 FR 37683, Sept. 12, 1990, as amended at 61 FR 20736, May 8, 1996; 65 FR 61752, Oct. 17, 2000; 71 FR 9884, Feb. 27, 2006]

***§ 60.48c Reporting and recordkeeping requirements.***

(a) The Permittee of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by §60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(g) The permittee of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day. The Permittee of an affected facility that only burns very low sulfur fuel oil or other liquid or gaseous fuels with potential sulfur dioxide emissions rate of 140 ng/J (0.32 lb/MMBtu) heat input or less shall record and maintain records of the fuels combusted during each calendar month.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

[55 FR 37683, Sept. 12, 1990, as amended at 64 FR 7465, Feb. 12, 1999; 65 FR 61753, Oct. 17, 2000; 71 FR 9886, Feb. 27, 2006]

## SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

**Emissions Unit Description: Specifically Regulated Insignificant Activities**

(1) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment [326 IAC 6-3-2]; and

(2) Conveyors as follows: covered conveyors for coke conveying of maximum capacity 80 tons of coke per day [326 IAC 6-3-2].

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

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

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

Pursuant to 326 IAC 6-3-2(e), (Particulate Emission Limitations for Manufacturing Processes), the particulate matter (PM) emissions from the insignificant activities, brazing equipment, cutting torches, soldering equipment, and welding equipment shall not exceed the pounds per hour emission rate established by the equation:

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

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

Where:
P = process weight in tons/hr and
E = rate of emission in pounds per hour.

D.4.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e), (Particulate Emission Limitations for Manufacturing Processes), the particulate matter (PM) emissions from the conveyors for coke shall not exceed the pounds per hour emission rate established by the equation:

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

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

Where:
P = process weight in tons/hr and
E = rate of emission in pounds per hour.

**SECTION E EMISSIONS UNIT OPERATION CONDITIONS**

**Emissions Unit Description: NESHAP Subpart DDD**

(a) One (1) coke-fueled cupola #2, identified as EU-P2, constructed in 1955, refurbished in 1995, natural gas supplemented, with a maximum capacity of 10.47 MMBtu/hr, equipped with a baghouse, exhausting through Stack S1, installed in 2003, with a maximum capacity of 7.0 tons of minerals per hour.

(b) One (1) coke-fueled cupola #4, identified as EU-P4, constructed in 1955, and refurbished in 1994, natural gas supplemented, with a maximum capacity of 10.47 MMBtu/hr, equipped with a baghouse, exhausting through Stack S3, constructed in 2003, with a maximum capacity of 8.0 tons of minerals per hour.

(c) One (1) natural gas-fired curing oven #2, identified as EU-P7, with a maximum capacity of 5.7 million British thermal units per hour, exhausting through Stack S5, constructed in 1955 and replaced in 1978, with a maximum capacity of 7.0 tons of fiberized minerals per hour and emissions controlled by regenerative thermal oxidizer, (RTO), constructed in 2002.

(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)]**

E.1.1 General Provisions Relating to NESHAP Subpart DDD (National Emission Standards for Hazardous Air Pollutants for Mineral Wool Production) [326 IAC 20-1-1][40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.1194, 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 apply to the two (2) cupolas, identified as EU-P2, EU-P4 and the curing oven, identified as EU-P7 described in this section except when otherwise specified in 40 CFR 63, Subpart DDD.

E.1.2 NESHAP Supart DDD Requirements [40 CFR 63, Subpart DDD]

Pursuant to 40 CFR, Subpart DDD, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart DDD, for existing mineral wool cupolas, identifed as EU-P2, EU-P4 and curing oven, identified as EU-P7, beginning June 2, 2002.

**§ 63.1175 What is the purpose of this subpart?**

This subpart establishes national emission standards for hazardous air pollutants emitted from existing, new, and reconstructed cupolas and curing ovens at facilities that produce mineral wool.

***§ 63.1176 Where can I find definitions of key words used in this subpart?***

The definitions of key words used in this subpart are in the Clean Air Act (Act), in §63.2 of the general provisions in subpart A of this part, and in §63.1196 of this subpart.

***§ 63.1177 Am I subject to this subpart?***

You are subject to this subpart if you own or operate an existing, new, or reconstructed mineral wool production facility that is located at a plant site that is a major source of hazardous air pollutant (HAP) emissions, meaning the plant 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 HAPs at a rate of 22.68 megagrams (25 tons) or more per year.

### *§ 63.1178 For cupolas, what standards must I meet?*

(a) You must control emissions from each cupola as follows:

(1) Limit emissions of particulate matter (PM) from each existing, new, or reconstructed cupola to 0.05 kilograms (kg) of PM per megagram (MG) (0.10 pound [lb] of PM per ton) of melt or less.

(2) Limit emissions of carbon monoxide (CO) from each new or reconstructed cupola to either of the following:

(i) 0.05 kg of CO per MG (0.10 lb of CO per ton) of melt or less.

(ii) A reduction of uncontrolled CO emissions by at least 99 percent.

(b) You must meet the following operating limits for each cupola:

(1) Begin within one hour after the alarm on a bag leak detection system sounds, and complete in a timely manner, corrective actions as specified in your operations, maintenance, and monitoring plan required by §63.1187 of this subpart.

(2) When the alarm on a bag leak detection system sounds for more than five percent of the total operating time in a six-month reporting period, develop and implement a written quality improvement plan (QIP) consistent with the compliance assurance monitoring requirements of §64.8(b)–(d) of 40 CFR part 64.

(3) Additionally, for each new or reconstructed cupola, maintain the operating temperature of the incinerator so that the average operating temperature for each three-hour block period never falls below the average temperature established during the performance test.

### *§ 63.1179 For curing ovens, what standards must I meet?*

(a) You must control emissions from each existing, new, or reconstructed curing oven by limiting emissions of formaldehyde to either of the following:

(1) 0.03 kg of formaldehyde per MG (0.06 lb of formaldehyde per ton) of melt or less.

(2) A reduction of uncontrolled formaldehyde emissions by at least 80 percent.

(b) You must meet the following operating limits for each curing oven:

(1) Maintain the free-formaldehyde content of each resin lot and the formaldehyde content of each binder formulation at or below the specification ranges of the resin and binder used during the performance test.

(2) Maintain the operating temperature of each incinerator so that the average operating temperature for each three-hour block period never falls below the average temperature established during the performance test.

### *§ 63.1180 When must I meet these standards?*

(a) *Existing cupolas and curing ovens.* You must install any control devices and monitoring equipment necessary to meet the standards in this subpart, complete performance testing, and demonstrate compliance with all requirements of this subpart no later than the following:

(1) June 2, 2002; or

(2) June 3, 2003 if you apply for and receive a one-year extension under section 112(i)(3)(B) of the Act.

(b) *New and reconstructed cupolas and curing ovens.* You must install any control devices or monitoring equipment necessary to meet the standards in this subpart, complete performance testing, and demonstrate compliance with all requirements of this subpart by the dates in §63.7 of the general provisions in subpart A of this part.

(c) You must comply with the standards in §§63.1178 and 63.1179 of this subpart on and after the dates in paragraphs (a) and (b) of this section.

(d) You must comply with these standards at all times except during periods of startup, shutdown, or malfunction.

### *§ 63.1181 How do I comply with the particulate matter standards for existing, new, and reconstructed cupolas?*

To comply with the PM standards, you must meet all of the following:

(a) Install, adjust, maintain, and continuously operate a bag leak detection system for each fabric filter.

(b) Do a performance test as specified in §63.1188 of this subpart and show compliance with the PM emission limits while the bag leak detection system is installed, operational, and properly adjusted.

(c) Begin corrective actions specified in your operations, maintenance, and monitoring plan required by §63.1187 of this subpart within one hour after the alarm on a bag leak detection system sounds. Complete the corrective actions in a timely manner.

(d) Develop and implement a written QIP consistent with compliance assurance monitoring requirements of 40 CFR 64.8(b) through (d) when the alarm on a bag leak detection system sounds for more than five percent of the total operating time in a six-month reporting period.

### *§ 63.1183 How do I comply with the formaldehyde standards for existing, new, and reconstructed curing ovens?*

To comply with the formaldehyde standards, you must meet all of the following:

(a) Install, calibrate, maintain, and operate a device that continuously measures the operating temperature in the firebox of each thermal incinerator.

(b) Do a performance test as specified in §63.1188 of this subpart while manufacturing the product that requires a binder formulation made with the resin containing the highest free-formaldehyde content specification range. Show compliance with the formaldehyde emission limits while the device for measuring incinerator operating temperature is installed, operational, and properly calibrated. Establish the average operating temperature as specified in §63.1185(a) of this subpart.

(c) During the performance test that uses the binder formulation made with the resin containing the highest free-formaldehyde content specification range, record the free-formaldehyde content specification range of the resin used, and the formulation of the binder used, including the formaldehyde content and binder specification.

(d) Following the performance test, monitor and record the free-formaldehyde content of each resin lot and the formulation of each batch of binder used, including the formaldehyde content.

(e) Maintain the free-formaldehyde content of each resin lot and the formaldehyde content of each binder formulation at or below the specification ranges established during the performance test.

(f) Following the performance test, measure and record the average operating temperature of the incinerator as specified in §63.1185(b) of this subpart.

(g) Maintain the operating temperature of the incinerator so that the average operating temperature for each three-hour block period never falls below the average temperature established during the performance test.

(h) Operate and maintain the incinerator as specified in your operations, maintenance, and monitoring plan required by §63.1187 of this subpart.

(i) With prior approval from the Administrator, you may do short-term experimental production runs using resin where the free-formaldehyde content, or binder formulations where the formaldehyde content, is higher than the specification ranges of the resin and binder used during previous performance tests, or using experimental pollution prevention process modifications without first doing additional performance tests. Notification of intent to perform a short-term experimental production run must include the following information:

(1) The purpose of the experimental run.

(2) The affected production process.

(3) How the resin free-formaldehyde content or binder formulation will deviate from previously approved levels or what the experimental pollution prevention process modifications are.

(4) The duration of the experimental run.

(5) The date and time of the experimental run.

(6) A description of any emissions testing to be done during the experimental run.

### *§ 63.1184 What do I need to know about the design specifications, installation, and operation of a bag leak detection system?*

A bag leak detection system must meet the following requirements:

(a) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(b) The sensor on the bag leak detection system must provide output of relative PM emissions.

(c) The bag leak detection system must have an alarm that will sound automatically when it detects an increase in relative PM emissions greater than a preset level.

(d) The alarm must be located in an area where appropriate plant personnel will be able to hear it.

(e) For a positive-pressure fabric filter, each compartment or cell must have a bag leak detector. For a negative-pressure or induced-air fabric filter, the bag leak detector must be installed downstream of the fabric filter. If multiple bag leak detectors are required (for either type of fabric filter), detectors may share the system instrumentation and alarm.

(f) Each triboelectric bag leak detection system must be installed, operated, adjusted, and maintained so that it follows EPA's “Fabric Filter Bag Leak Detection Guidance” (EPA–454/R–98–015, September 1997). Other bag leak detection systems must be installed, operated, adjusted, and maintained so that they follow the manufacturer's written specifications and recommendations.

(g) At a minimum, initial adjustment of the system must consist of establishing the baseline output in both of the following ways:

(1) Adjust the range and the averaging period of the device.

(2) Establish the alarm set points and the alarm delay time.

(h) After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the operations, maintenance, and monitoring plan required by §63.1187 of this subpart. In no event may the range be increased by more than 100 percent or decreased by more than 50 percent over a 365 day period unless a responsible official as defined in §63.2 of the general provisions in subpart A of this part certifies in writing to the Administrator that the fabric filter has been inspected and found to be in good operating condition.

### *§ 63.1185 How do I establish the average operating temperature of an incinerator?*

(a) During the performance test, you must establish the average operating temperature of an incinerator as follows:

(1) Continuously measure the operating temperature of the incinerator.

(2) Determine and record the average temperatures in consecutive 15-minute blocks.

(3) Determine and record the arithmetic average of the recorded average temperatures measured in consecutive 15-minute blocks for each of the one-hour performance test runs.

(4) Determine and record the arithmetic average of the three one-hour average temperatures during the performance test runs. The average of the three one-hour performance test runs establishes the temperature level to use to monitor compliance.

(b) To comply with the requirements for maintaining the operating temperature of an incinerator after the performance test, you must measure and record the average operating temperature of the incinerator as required by §§63.1182 and 63.1183 of this subpart. This average operating temperature of the incinerator is based on the arithmetic average of the one-hour average temperatures for each consecutive three-hour period and is determined in the same manner described in paragraphs (a)(1) through (a)(4) of this section.

### *§ 63.1188 What performance test requirements must I meet?*

You must meet the following performance test requirements:

(a) All monitoring systems and equipment must be installed, operational, and properly calibrated before the performance tests.

(b) Do a performance test, consisting of three test runs, for each cupola and curing oven subject to this subpart at the maximum production rate to demonstrate compliance with each of the applicable emission limits in §§63.1178 and 63.1179 of this subpart.

(c) Measure emissions of PM from each existing cupola.

(d) Measure emissions of PM and CO from each new or reconstructed cupola.

(e) Measure emissions of formaldehyde from each existing, new or reconstructed curing oven.

(f) Measure emissions at the outlet of the control device if complying with a numerical emission limit for PM, CO, or formaldehyde, or at the inlet and outlet of the control device if complying with a percent reduction emission limit for CO or formaldehyde.

(g) To determine the average melt rate, measure and record the amount of raw materials, excluding coke, charged into and melted in each cupola during each performance test run. Determine and record the average hourly melt rate for each performance test run. Determine and record the arithmetic average of the average hourly melt rates associated with the three performance test runs. The average hourly melt rate of the three performance test runs is used to determine compliance with the applicable emission limits.

(h) Compute and record the average emissions of the three performance test runs and use the equations in §63.1190 of this subpart to determine compliance with the applicable emission limits.

(i) Comply with control device and process operating parameter monitoring requirements for performance testing as specified in this subpart.

### *§ 63.1190 How do I determine compliance?*

(a) Using the results of the performance tests, you must use the following equation to determine compliance with the PM emission limit:

$$E = \frac{C \times Q \times K_1}{P}$$

where:

E = Emission rate of PM, kg/Mg (lb/ton) of melt.

C = Concentration of PM, g/dscm (gr/dscf).

Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr).

K $5_1$= Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr).

P = Average melt rate, Mg/hr (ton/hr).

(b) Using the results of the performance tests, you must use the following equation to determine compliance with the CO and formaldehyde numerical emission limits:

$$E = \frac{C \times MW \times Q \times K_1 \times K_2}{K_3 \times P \times 10^6}$$

where:

E = Emission rate of measured pollutant, kg/Mg (lb/ton) of melt.

C = Measured volume fraction of pollutant, ppm.

MW = Molecular weight of measured pollutant, g/g-mole:

CO = 28.01, Formaldehyde = 30.03.

Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr).

$K_1$= Conversion factor, 1 kg/1,000 g (1 lb/453.6 g).

$K_2$= Conversion factor, 1,000 $L/m^3$ (28.3 $L/ft^3$ ).

$K_3$= Conversion factor, 24.45 L/g-mole.

P = Average melt rate, Mg/hr (ton/hr).

(c) Using the results of the performance tests, you must use the following equation to determine compliance with the CO and formaldehyde percent reduction performance standards:

$$\%R = \frac{L_i - L_o}{L_i} \times 100$$

where:

%R = Percent reduction, or collection efficiency of the control device.

$L_i$= Inlet loading of pollutant, kg/Mg (lb/ton).

$L_o$= Outlet loading of pollutant, kg/Mg (lb/ton).

### *§ 63.1191 What notifications must I submit?*

You must submit written notifications to the Administrator as required by §63.9(b)–(h) of the general provisions in subpart A of this part. These notifications include, but are not limited to, the following:

(a) Notification that the following types of sources are subject to the standard:

(1) An area source that increases its emissions so that it becomes a major source.

(2) A source that has an initial startup before the effective date of the standard.

(3) A new or reconstructed source that has an initial startup after the effective date of the standard and doesn't require an application for approval of construction or reconstruction under §63.5(d) of the general provisions in subpart A of this part.

(b) Notification of intention to construct a new major source or reconstruct a major source where the initial startup of the new or reconstructed source occurs after the effective date of the standard and an application for approval of construction or reconstruction under §63.5(d) of the general provisions in subpart A of this part is required.

(c) Notification of special compliance obligations for a new source that is subject to special compliance requirements in §63.6(b)(3) and (4) of the general provisions in subpart A of this part.

(d) Notification of a performance test at least 60 calendar days before the performance test is scheduled to begin.

(e) Notification of compliance status.

### *§ 63.1192 What recordkeeping requirements must I meet?*

You must meet the following recordkeeping requirements:

(a) Maintain files of all information required by §63.10(b) of the general provisions in subpart A of this part, including all notifications and reports.

(b) Maintain records of the following information also:

(1) Cupola production (melt) rate (Mg/hr (tons/hr) of melt).

(2) All bag leak detection system alarms. Include the date and time of the alarm, when corrective actions were initiated, the cause of the alarm, an explanation of the corrective actions taken, and when the cause of the alarm was corrected.

(3) The free-formaldehyde content of each resin lot and the binder formulation, including formaldehyde content, of each binder batch used in the manufacture of bonded products.

(4) Incinerator operating temperature and results of incinerator inspections. For all periods when the average temperature in any three-hour block period fell below the average temperature established during the performance test, and all periods when the inspection identified incinerator components in need of repair or maintenance, include the date and time of the problem, when corrective actions were initiated, the cause of the problem, an explanation of the corrective actions taken, and when the cause of the problem was corrected.

(c) Retain each record for at least five years following the date of each occurrence, measurement, corrective action, maintenance, record, or report. The most recent two years of records must be retained at the facility. The remaining three years of records may be retained off site.

(d) Retain records on microfilm, on a computer, on computer disks, on magnetic tape disks, or on microfiche.

(e) Report the required information on paper or on a labeled computer disk using commonly available and compatible computer software.

### *§ 63.1193 What reports must I submit?*

You must prepare and submit reports to the Administrator as required by this subpart and §63.10 of the general provisions in subpart A of this part. These reports include, but are not limited to, the following:

(a) A performance test report, as required by §63.10(d)(2) of the general provisions in subpart A of this part, that documents the process and control equipment operating parameters during the test period, the test methods and procedures, the analytical procedures, all calculations, and the results of the performance tests.

(b) A startup, shutdown, and malfunction plan, as described in §63.6(e)(3) of the general provisions in subpart A of this part, that contains specific procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and control systems used to comply with the emission standards. In addition to the information required by §63.6(e)(3), your plan must include the following:

(1) Procedures to determine and record what caused the malfunction and when it began and ended.

(2) Corrective actions you will take if a process or control device malfunctions, including procedures for recording the actions taken to correct the malfunction or minimize emissions.

(3) An inspection and maintenance schedule for each process and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.

(c) A report of each event as required by §63.10(b) of the general provisions in subpart A of this part, including a report if an action taken during a startup, shutdown, or malfunction is inconsistent with the procedures in the plan as described in §63.6(e)(3) of the general provisions in subpart A of this part.

(d) An operations, maintenance, and monitoring plan as specified in §63.1187 of this subpart.

(e) A semiannual report as required by §63.10(e)(3) of the general provisions in subpart A of this part if measured emissions exceed the applicable standard or a monitored parameter varies from the level established during performance testing. The report must contain the information specified in §63.10(c) of the general provisions, as well as the relevant records required by §63.1192(b) of this subpart.

(f) A semiannual report stating that no excess emissions or deviations of monitored parameters occurred during the reporting period as required by §63.10(e)(3)(v) of the general provisions in subpart A of this part if no deviations have occurred.

### *§ 63.1194 Which general provisions apply?*

The general provisions in subpart A of this part define requirements applicable to all owners and operators affected by NESHAP in part 63. See Table 1 of this subpart for general provisions that apply (or don't apply) to you as an owner or operator subject to the requirements of this subpart.

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
# OFFICE OF AIR QUALITY
# PART 70 OPERATING PERMIT
# CERTIFICATION

Source Name: Thermafiber, Inc Wabash Plant
Source Address: 3711 Mill Street, Wabash, Indiana 46992
Mailing Address: 3711 Mill Street, Wabash, IN 46992
Part 70 Permit No.: T169-21103-00009

**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

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**Indianapolis, Indiana 46204-2251**
**Phone: 317-233-0178**
**Fax: 317-233-6865**

## PART 70 OPERATING PERMIT
## EMERGENCY OCCURRENCE REPORT

Source Name: Thermafiber, Inc Wabash Plant
Source Address: 3711 Mill Street, Wabash, Indiana 46992
Mailing Address: 3711 Mill Street, Wabash, IN 46992
Part 70 Permit No.: T169-21103-00009

**This form consists of 2 pages** **Page 1 of 2**

□ This is an emergency as defined in 326 IAC 2-7-1(12)

- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

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

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

If any of the following are not applicable, mark N/A **Page 2 of 2**

| |
|---|
| Date/Time Emergency started: |
| Date/Time Emergency was corrected: |
| Was the facility being properly operated at the time of the emergency? Y N |
| Type of Pollutants Emitted: TSP, PM-10, $SO_2$, VOC, $NO_X$, CO, Pb, other: |
| Estimated amount of pollutant(s) emitted during emergency: |
| Describe the steps taken to mitigate the problem: |
| Describe the corrective actions/response steps taken: |
| Describe the measures taken to minimize emissions: |
| If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value: |

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

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

# PART 70 OPERATING PERMIT
# SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION

Source Name: Thermafiber, Inc Wabash Plant
Source Address: 3711 Mill Street, Wabash, Indiana 46992
Mailing Address: 3711 Mill Street, Wabash, IN 46992
Part 70 Permit No.: T169-21103-00009

| |
|---|
| □ Natural Gas Only<br>□ Alternate Fuel burned<br>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.<br><br>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.

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
# OFFICE OF AIR QUALITY
# COMPLIANCE DATA SECTION
# PART 70 OPERATING PERMIT
# QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Thermafiber, Inc Wabash Plant
Source Address: 3711 Mill Street, Wabash, Indiana 46992
Mailing Address: 3711 Mill Street, Wabash, IN 46992
Part 70 Permit No.: T169-21103-00009

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



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".

□ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

□ 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

## Final Addendum to the Technical Support Document for Part 70 Operating Permit (TV) Renewal

**Source Background and Description**

| | |
|---|---|
| **Source Name:** | Thermafiber, Inc Wabash Plant |
| **Source Location:** | 3711 Mill Street, Wabash, Indiana 46992 |
| **County:** | Wabash |
| **SIC Code:** | 3296 |
| **Permit Renewal No.:** | T169-21103-00009 |
| **Permit Reviewer:** | Josiah Balogun |

On October 24, 2007, the Office of Air Quality (OAQ) had a notice published in the Wabash Plain Dealer, Indiana, stating that Thermafiber, Inc Wabash Plant has applied for a Part 70 Operating Permit (TV) renewal to continue to operate a mineral wool manufacturing plant. The notice also stated that OAQ proposed to issue a TV renewal for this operation and provided information on how the public could review the proposed TV renewal 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 TV renewal should be issued as proposed.

Upon further review IDEM, OAQ has made the following changes to the TV permit. (deleted language appears as ~~strikout~~ and the new language **bolded**)**:**

Change 1: The Emission Statement in Section C.17 was not included in the draft permit. This section has been included in the final permit.

**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(a)(1), the Permittee shall submit by July 1 of each year 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**

**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, on or before the date it is due.**

.....

# Indiana Department of Environmental Management
# Office of Air Quality

## Final Addendum to the Technical Support Document for Part 70 Operating Permit (TV) Renewal

**Source Background and Description**

| | |
|---|---|
| **Source Name:** | Thermafiber, Inc Wabash Plant |
| **Source Location:** | 3711 Mill Street, Wabash, Indiana 46992 |
| **County:** | Wabash |
| **SIC Code:** | 3296 |
| **Permit Renewal No.:** | T169-21103-00009 |
| **Permit Reviewer:** | Josiah Balogun |

On October 24, 2007, the Office of Air Quality (OAQ) had a notice published in the Wabash Plain Dealer, Indiana, stating that Thermafiber, Inc Wabash Plant has applied for a Part 70 Operating Permit (TV) renewal to continue to operate a mineral wool manufacturing plant. The notice also stated that OAQ proposed to issue a TV renewal for this operation and provided information on how the public could review the proposed TV renewal 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 TV renewal should be issued as proposed.

Upon further review IDEM, OAQ has made the following changes to the TV permit. (deleted language appears as ~~strikout~~ and the new language **bolded**):

Change 1 IDEM has determined that Thermafiber is not one of the 28 listed source categories. Therefore the statement has been deleted from Section A.1 of the permit.

No changes have been made to the TSD because the OAQ prefers that the Technical Support Document reflects the permit that was on public notice. Changes that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result, ensuring that these types of concerns are documented and part of the record regarding this permit decision.

**County Attainment Status**

.....

~~(e) Fugitive Emissions~~
~~Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 , fugitive emissions are counted toward determination of PSD applicability.~~

**(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 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD or Emission Offset applicability.**

**Unrestricted Potential Emissions**

.....

~~(c) Fugitive Emissions~~
~~Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are counted toward the determination of Part 70 applicability.~~

**(c) Fugitive Emissions**
**Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are not counted toward the determination of Part 70 applicability.**

.....

**Potential to Emit After Issuance**

~~(a) This existing stationary source is major for PSD because the emissions of at least one criteria pollutant are greater than one hundred (>100) tons per year, and it is one of the twenty-eight (28) listed source categories.~~

**(a) This existing stationary source is major for PSD because the emissions of at least one attainment pollutant are greater than two hundred fifty (>250) tons per year, and is not one of the twenty-eight (28) listed source categories.**

~~(b) Fugitive Emissions~~
~~Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are counted toward the determination of PSD and Emission Offset applicability.~~

**(b) 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.**

.....

**State Rule Applicability - Entire Source**

326 IAC 2-2 (Prevention of Significant Deterioration)
This existing source is a major stationary source for 326 IAC 2-2 (PSD)**,** ~~because~~ it is **not** one of the 28 listed source categories and at least one attainment criteria pollutant, CO has controlled emissions greater than ~~100~~ **250** tons per year. This source was a major source pursuant to 326 IAC 2-2 (PSD), prior to August 7, 1977.

.....

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]

.....

**Not** 1 of 28 Source Categories

# Indiana Department of Environmental Management
Office of Air Quality

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

### Source Background and Description

| | |
|---|---|
| **Source Name:** | Thermafiber, Inc Wabash Plant |
| **Source Location:** | 3711 Mill Street, Wabash, Indiana 46992 |
| **County:** | Wabash |
| **SIC Code:** | 3296 |
| **Permit Renewal No.:** | T169-21103-00009 |
| **Permit Reviewer:** | Josiah Balogun |

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Thermafiber, Inc Wabash Plant relating to the operation of a mineral wool manufacturing source.

### History

On April 11, 2005, Thermafiber, Inc Wabash Plant submitted applications to the OAQ requesting to renew its operating permit. Thermafiber, Inc Wabash Plant was issued a Part 70 Operating Permit on January 16, 2001.

### Permitted Emission Units and Pollution Control Equipment

(a) One (1) coke-fueled cupola #2, identified as EU-P2, constructed in 1955, refurbished in 1995, natural gas supplemented, with a maximum capacity of 10.47 MMBtu/hr, equipped with a baghouse, exhausting through Stack S1, constructed in 2003, with a maximum capacity of 7.0 tons of minerals per hour;

(b) One (1) coke-fueled cupola #4, identified as EU-P4, constructed in 1955, and refurbished in 1994, natural gas supplemented, with a maximum capacity of 11.97 MMBtu/hr, equipped with a baghouse, exhausting through Stack S3, constructed in 2003, with a maximum capacity of 8.0 tons of minerals per hour;

(c) One (1) blowchamber #4, identified as EU-P6, constructed in 1955, equipped with a dry media filter, exhausting through Stack S4, constructed in 1992, with a maximum capacity of 8.0 tons of fiberized minerals and 0.1 tons of dedusting annealing oil per hour;

(d) One (1) natural gas-fired curing oven #2, identified as EU-P7, with a maximum capacity of 5.7 million British thermal units per hour, exhausting through Stack S5, constructed in 1955 and replaced in 1978, with a maximum capacity of 7.0 tons of fiberized minerals per hour and emissions controlled by regenerative thermal oxidizer, (RTO), constructed in 2002;

(e) One (1) blowchamber #2, identified as EU-P8, equipped a dry media filter, exhausting through Stack S6, constructed in 1955, replaced in 1978 and refurbished in 1999, with a maximum capacity of 7.0 tons of fiberized minerals and 1.4 tons of binder and water per hour;

(f) One (1) #2 line trimming/sizing section, identified as EU-P9, equipped with a baghouse, identified as CE7, exhausting through Stack S7 or inside the building, constructed in 1955, replaced in 1978, and reconditioned in 2003, with a maximum capacity of 7.0 tons of fiberized minerals per hour;

(g) One (1) #2 line cooling section, identified as EU-P10, exhausting through Stack S8, constructed in 1955, and replaced in 1978, with a maximum capacity of 7.0 tons of fiberized minerals per hour;

(h) One (1) natural gas-fired #1 boiler, identified as EU-P11, with a maximum capacity 12.5 million British thermal units per hour, exhausting through Stack S9, constructed in January 31, 1990; and

(i) One (1) fiber bond cutting operation identified as emission unit EU-P30, with a maximum capacity of 1600 linear feet of board per hour and 10.4 tons of fiber board per hour, originally constructed in 2002 and approved to be modified in 2007, with two (2) cutting stations controlled by a fabric filter baghouse, identified as DC-30, exhausting either externally through stack S-23 or inside the building.

**Emission Units and Pollution Control Equipment Constructed**

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

**Emission Units and Pollution Control Equipment Removed From the Source**

No emission units and control equipment were removed from the source.

**Insignificant Activities**

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.

(1) (One (1) natural gas-fired boiler, identified as boiler #2, with a maximum at 4.5 million British thermal units per hour, exhausting through Stack 10, constructed in 1977 [326 IAC 6-2];

(b) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 British thermal units per hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 British thermal units per hour.

(c) Combustion source flame safety purging on startup.

(d) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons:

(1) One (1) storage tank, known as Tank 10, constructed in 1989, capacity, with a maximum capacity of 500 gallons of gasoline;

(e) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month:

(1) One (1) storage tank, known as Tank 1, constructed in 1979, capacity, with a maximum capacity of 1,000 gallons of diesel fuel;

(f) The following VOC and HAP storage containers: Two (2) storage tanks, known as Tanks 2 and 3, with a maximum capacity of 10,000 gallons of annealing oil and 8,000 gallons of mulrex, respectively.

(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 oil, hydraulic oils, machining oils, and machining fluids.

(g) Application of oils, greases lubricants or other nonvolatile materials applied as temporary protective coatings.

(h) Machining where an aqueous cutting coolant continuously floods the machining interface.

(i) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6;

(j) Cleaners and solvents characterized as follows:

(1) having a vapor pressure equal to or less than 2 kiloPascals; 15 millimeters of mercury; or 0.3 pounds per square inch measured at 38°C (100°F) or;

(2) having a vapor pressure equal to or less than 0.7 kiloPascals; 5 millimeters of mercury; or 0.1 pounds per square inch measured at 20°C (68°F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(k) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment [326 IAC 6-3-2].

(l) Closed loop heating and cooling systems.

(m) Solvent recycling systems with batch capacity less than or equal to 100 gallons.

(n) Noncontact cooling tower systems with either of the following: forced and induced draft cooling tower system not regulated under a NESHAP.

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

(p) Paved and unpaved roads and parking lots with public access.

(q) Conveyors as follows: covered conveyors for coke conveying of maximum capacity 80 tons of coke per day [326 IAC 6-3-2].

(r) Asbestos abatement projects regulated by 326 IAC 14-10.

(s) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.

(t) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(u) On-site fire and emergency response training approved by the department.

(v) Other emergency equipment as follows: stationary fire pumps.

(1) one (1) diesel engine, with a maximum capacity of 0.153 MMBtu/hr, driving a fire protection water pump.

**Existing Approvals**

Since the issuance of the Part 70 Operating Permit T169-6218-00009 on January 16, 2001, the source has constructed or has been operating under the following approvals as well:

(a) Administrative Amendment T169-14244-00009, issued on May 30, 2001;

(b) Administrative Amendment T169-14843-00009, issued on September 18, 2001;

(c) Administrative Amendment T169-15023-00009, issued on November 5, 2001;

(d) Significant Permit Modification T169-15153-00009, issued on April 9, 2002;

(e) Administrative Amendment T169-17137-00009, issued on February 17, 2003;

(f) Administrative Amendment T169-17232-00009, issued on May 27, 2003; and

(g) Significant Permit Modification T169-24879-00009, issued on September 18, 2007.

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

**Enforcement Issue**

There are no enforcement actions pending.

**Stack Summary**

| Stack ID | Height (feet) | Diameter (feet) | Flow Rate (acfm) | Temperature ($^{o}$F) |
|---|---|---|---|---|
| S1 | 57 | 3 | 13,000 | 200 |
| S3 | 57 | 3 | 12,000 | 200 |
| S4 | 54 | 64 | 107,638 | 100 |
| S5 | 34 | 3.5 | 15,739 | 322 |
| S6 | 45 | 37.2 | 110,687 | 95 |
| S7 | 20 | 2 | 20,000 | 80 |
| S8 | 22 | 2.71 | 24,626 | 95 |
| S9 | 35 | 1.66 | 2,000 | 100 |
| S10 | 35 | 1.0 | 2,000 | 100 |
| S23 | 16 | 1.5 | 7,000 | 80 |

**Emission Calculations**

See Appendix A of this document for detailed emission calculations (1 through 20).

**County Attainment Status**

The source is located in Wabash County

| Pollutant | Status |
|---|---|
| $PM_{10}$ | attainment |
| $PM_{2.5}$ | attainment |
| $SO_2$ | attainment |
| NOx | attainment |
| 8-hour Ozone | attainment |
| CO | attainment |
| Lead | attainment |

(a) Wabash County has been classified as unclassifiable or 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 $PM_{10}$ emissions as a surrogate for $PM_{2.5}$ emissions. See the State Rule Applicability – Entire Source section.

(b) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) 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 emissions and NOx emissions are considered when evaluating the rule applicability relating to ozone. Wabash County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

(c) Wabash County has been classified as attainment or unclassifiable in Indiana for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

(d) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

(e) Fugitive Emissions
Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 , fugitive emissions are counted toward determination of PSD applicability.

**Unrestricted Potential Emissions**

This table reflects the unrestricted potential emissions of the source.

| Pollutant | tons/year |
|---|---|
| PM | 2166.3 |
| $PM_{10}$ | 1493.9 |
| $SO_2$ | 570.52 |
| VOC | 386.08 |
| CO | 16442.3 |
| $NO_x$ | 132.9 |
| Pb | less than 10 |

| HAPs | tons/year |
|---|---|
| Chromium | less than 10 |
| Manganese | less than 10 |
| Nickel | less than 10 |
| Arsenic | less than 10 |
| cadmium | less than 10 |
| Selenium | less than 10 |
| Carbonyl Sulfide | greater than 10 |
| Barium | less than 10 |
| Beryllium | less than 10 |
| Antimony | less than 10 |
| Lead | less than 10 |
| Fine Mineral Fiber | less than 10 |
| Benzene | less than 10 |
| Dichlorobenzene | less than 10 |
| Formaldehyde | less than 10 |
| Hexane | less than 10 |
| Toluene | less than 10 |
| Total | greater than 25 |

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of $PM_{10}$, $SO_2$, VOC, NOx and CO are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(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/or 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 in one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are counted toward the determination of Part 70 applicability.

**Actual Emissions**

The following table shows the actual emissions from the source. This information reflects the 2006 OAQ emission data.

| Pollutant | Actual Emissions (tons/year) |
|---|---|
| **PM** | 0 |
| **$PM_{10}$** | 121 |
| **$SO_2$** | 411 |
| **VOC** | 151 |
| **CO** | 10,848 |
| **$NO_x$** | 74 |
| **Pb** | 0.00 |

**Part 70 Permit Conditions**

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

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.

(b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

**Potential to Emit After Issuance**

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 Part 70 permit renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

| | **Potential to Emit** | | | | | | |
|---|---|---|---|---|---|---|---|
| **Emission Units** | PM (ton/yr) | $PM_{10}$ (ton/yr) | $SO_2$ (ton/yr) | VOC (ton/yr) | CO (ton/yr) | NOx (ton/yr) | HAPs (ton/yr) |
| Coke-fueled Cupola #2 EU-P2 | 3.1 | 271.68 | 245.28 | 1.23 | 7665 | 49.06 | 92.64 |
| Coke-fueled Cupola #4 EU-P4 | 3.5 | 336.35 | 280.32 | 1.4 | 8760 | 56.06 | 105.3 |
| BlowChamber #4 EU-P6 | 73.15 | 41.35 | 3.05 | 29.01 | 0 | 0 | 4.56 |
| Curing Oven EU-P7 | 3.1 | 11.34 | 36.79 | 30.66 | 0 | 4.91 | 0 |
| BlowChamber #2 EU-P8 | 29.74 | 29.13 | 2.67 | 27.59 | 0 | 0 | 0.34 |
| #2 Line trimming /sizing EU-P9 | 15.18 | 15.18 | 2.08 | 0 | 0 | 0 | 0 |
| #2 Line Cooling EU-P10 | 67.89 | 58.25 | 0 | 1.23 | 0 | 0 | 0 |
| Fiber bond cutting EU-P30 (New) | less than 25 | less than 15 | 0 | 0 | 0 | 0 | 0 |
| Fiber bond cutting EU-P30 (Existing) | | | | | | | |
| Boiler #1 | 0.1 | 0.4 | 0.03 | 0.3 | 4.6 | 5.5 | 0.11 |
| Boiler #2 | 0 | 0.1 | 0 | 0.1 | 1.7 | 2 | 0.038 |
| Combustion Units | 0.2 | 0.9 | 0.1 | 1.2 | 10.4 | 12.4 | 0.22 |
| Insignificant Activities | 0.2 | 0.2 | 0.2 | 0.5 | 0.6 | 3 | neg |
| Total Emissions | less than 221.2 | less than 779.9 | 570.52 | 93.22 | 16442.3 | 132.9 | 203.21 |

(a) This existing stationary source is major for PSD because the emissions of at least one criteria pollutant are greater than one hundred (>100) tons per year, and it is one of the twenty-eight (28) listed source categories.

(b) Fugitive Emissions
Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are counted toward the determination of PSD and Emission Offset applicability.

**Federal Rule Applicability**

The following federal rules are applicable to the source:

(a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to existing 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 existing emission unit and specified pollutant subject to CAM:

| Emission Units | Control Device Used | Emission Limitaion (Y/N) | Uncontrolled PTE (tons/yr) | Controlled PTE (tons/yr) | Major Source Threshold (tons/yr) | CAM Applicability (Y/N) | Large Unit (Y/N) |
|---|---|---|---|---|---|---|---|
| Cupola #2 - $PM_{10}$ | Y | N | 272 | 272 | 100 | N | N |
| Cupola #4 - $PM_{10}$ | Y | N | 336 | 336 | 100 | N | N |
| Cupola #2 - PM | Y | N* | 566 | 61.1 | 100 | N | N |
| Cupola #4 - PM | Y | N* | 647 | 72.27 | 100 | N | N |
| Blowchamber #4 EU-P6- $PM_{10}$ | N | N | 41.35 | 41.34 | 100 | N | N |
| Blowchamber #2 EU-P8- $PM_{10}$ | N | N | 29.13 | 29.13 | 100 | N | N |
| Curing oven #2 $PM_{10}$ | N | N | 11.34 | 11.34 | 100 | N | N |
| #2 Line trimming /sizing EU-P9-$PM_{10}$ | N | N | 15.18 | 15.18 | 100 | N | N |
| #2 Line Cooling EU-P10- $PM_{10}$ | N | N | 58.25 | 58.25 | 100 | N | N |
| EU-P30 - $PM_{10}$ | Y | N | 729 | 12.39 | 100 | Y | N |
| EU-P30 - PM | Y | Y | 729 | 12.39 | 100 | N | N |
| Cupola #2 - $SO_2$ | N | N | 245.28 | 245.28 | 100 | N | N |
| Cupola #4 - $SO_2$ | N | N | 280.32 | 280.32 | 100 | N | N |
| Blowchamber #4 EU-P6- $SO_2$ | N | N | 3.05 | 3.05 | 100 | N | N |
| Blowchamber #2 EU-P8- $SO_2$ | N | N | 2.67 | 2.67 | 100 | N | N |
| Curing oven #2- $SO_2$ | N | N | 36.79 | 36.79 | 100 | N | N |
| #2 Line Cooling EU-P10- $SO_2$ | N | N | 2.08 | 2.08 | 100 | N | N |
| Cupola #2 - VOC | N | N | 1.23 | 1.23 | 100 | N | N |
| Cupola #4 - VOC | N | N | 1.4 | 1.4 | 100 | N | N |
| Blowchamber #4 EU-P6- VOC | Y | N | 322.37 | 29.01 | 100 | N | N |

| Emission Units | Control Device Used | Emission Limitaion (Y/N) | Uncontrolled PTE (tons/yr) | Controlled PTE (tons/yr) | Major Source Threshold (tons/yr) | CAM Applicability (Y/N) | Large Unit (Y/N) |
|---|---|---|---|---|---|---|---|
| Blowchamber #2 EU-P8 - VOC | N | N | 27.59 | 27.59 | 100 | N | N |
| Curing oven #2-VOC | N | N | 30.66 | 30.66 | 100 | N | N |
| #2 Line Cooling EU-P10 - VOC | N | N | 1.23 | 1.23 | 100 | N | N |
| EU-P30 - VOC | N | N | | | 100 | N | N |
| Cupola #2 - CO | N | N | 7665 | 7665 | 100 | N | N |
| Cupola #4 - CO | N | N | 8760 | 8760 | 100 | N | N |
| Cupola #2 - NOx | N | N | 49.06 | 49.06 | 100 | N | N |
| Cupola #4 - NOx | N | N | 56.06 | 56.06 | 100 | N | N |
| Curing oven #2 - NOx | N | N | 4.91 | 4.91 | 100 | N | N |
| Cupola #2 - HAP | N | N* | single >10, Total > 25 | 92.64 | 10/25 | N | N |
| Cupola #4 - HAP | N | N* | single >10, Total > 25 | 105.3 | 10/25 | N | N |
| Blowchamber #4 EU-P6 - HAP | N | N | single >10, Total > 25 | 4.56 | 10/25 | N | N |
| Blowchamber #2 EU-P8 - HAP | N | N | single >10, Total > 25 | 0.34 | 10/25 | N | N |

Note: N* The emissions limits are from 40 CFR 63, Subpart DDD.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to the fiber bond cutting operation, identified as EU-P30 for PM upon issuance of this Part 70 Permit renewal. A CAM plan will be incorporated into this Part 70 permit renewal.

(a) 326 IAC 12 and 40 CFR 60, Subpart Dc-Standard of Performance for Small Industrial-Commercial Institutional Steam Generating Unit.

The #1 Boiler, identified as EU-P11 is subject to the requirements of the New Source Performance Standard, 40 CFR 60, Subpart Dc, Standard of Performance for Small Industrial-Commercial Institutional Steam Generating Unit, because the boiler was constructed in 1990, which is after June 9, 1989, which is the applicability date for this rule and the boiler has a heat input capacity of less than 100 million Btu/hour. The specific facility subject to this rule includes the following.

(1) One (1) natural gas-fired #1 boiler, identified as EU-P11, with a maximum capacity 12.5 million British thermal units per hour, exhausting through Stack S9, constructed in January 31, 1990.

Nonapplicable portion of the NSPS will not be included in the permit. The boiler is subject to the following portions of Subpart Dc

(1) 40 CFR 60.40c (a)(b);
(2) 40 CFR 60.41c; and
(3) 40 CFR 60.48c (a)(1), (g)(i)(j).

(b) The requirements of the New Source Performance Standard for 326 IAC 12 and 40 CFR 60, Subpart Dc (Standard of Performance for Small Industrial-Commercial Institutional Steam Unit), are not included in the permit for boiler #2, with a maximum capacity of 4.5 MMBtu/hr because construction of this unit commenced prior to June 9, 1989, which is the applicability date for this rule.

(c) This mineral wool manufacturing source is not subject to the requirements of the New Source Performance Standard (NSPS), 326 IAC 12, (40 CFR 60, Subpart PPP), since this source does not meet the definition of a wool fiberglass insulation manufacturing line. Specifically, this source does not produce insulation material composed of glass fibers made from glass produced or melted at the source.

(d) This source is subject to the National Emission Standards for Hazardous Air Pollutants, 326 IAC 20-46, (40 CFR 63, Subpart DDD, Mineral Wool Production). Pursuant to 40 CFR 63.1180, the existing two (2) mineral wool cupolas, known as EU-P2 and EU-P4, and one (1) curing oven, known as EU-P7 operations are subject to 40 CFR 63, Subpart DDD.

The provisions of 40 CFR 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 DDD.

Pursuant to 40 CFR 63, Subpart DDD, the two (2) existing cupolas and one (1) curing oven are subject to the following conditions at all times, except during periods of startup, shutdown or malfunction:

Nonapplicable portions of the NESHAP will not be included in the permit. These emission units are subject to the following portions of Subpart DDD:

(1) 40 CFR 63.1175
(2) 40 CFR 63.1176
(3) 40 CFR 63.1177
(4) 40 CFR 63.1178
(5) 40 CFR 63.1179
(6) 40 CFR 63.1180
(7) 40 CFR 63.1181
(8) 40 CFR 63.1183
(9) 40 CFR 63.1184
(10) 40 CFR 63.1185
(11) 40 CFR 63.1188
(12) 40 CFR 63.1190
(13) 40 CFR 63.1191
(14) 40 CFR 63.1192
(15) 40 CFR 63.1193
(16) 40 CFR 63.1194

**State Rule Applicability - Entire Source**

326 IAC 2-2 (Prevention of Significant Deterioration)
This existing source is a major stationary source for 326 IAC 2-2 (PSD) because it is one of the 28 listed source categories and at least one attainment criteria pollutant, CO has controlled emissions greater than 100 tons per year. This source was a major source pursuant to 326 IAC 2-2 (PSD), prior to August 7, 1977.

1978 Modification
The source was already PSD major before these replacements were performed. The following emissions units were replaced in 1978, EU-P7, EU-P8, EU-P9 and EU-P10. The net emissions for these emission units are all less than the PSD significant levels. Therefore, the replacement of these emission units in 1978 was not a major modification for PSD purposes.

1990 Modification
The uncontrolled PM and $PM_{10}$ emissions from #1 boiler, constructed in 1990 are less than 25 and 15 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 are not applicable to 1990 modification.

1994 and 1995 Modification
The two (2) cupolas, identified as EU-P2 and EU-P4 were refurbished in 1994 through 1995. This refurbishment was performed on the equipment for maintenance reasons and to improve product quality. No increase in cupola capacity, no new emission sources, no new emitted materials, and no increase to existing emissions were experienced. All emission controls remain the same. Therefore, the refurbishment in 1994 through 1995 was not major modification for PSD purposes.

1999 Modification
The #2 blowchamber, identified as EU-P8 was refurbished in 1999. This refurbishment was performed on the equipment for maintenance reasons and to improve product quality. No increase in cupola capacity, no new emission sources, no new emitted materials, and no increase to existing emissions were experienced. All emission controls remain the same. Therefore, the refurbishment in 1999 was not major modification for PSD purposes.

2007 Modification
The uncontrolled PM and $PM_{10}$ emissions from the fiber bond cutting operation, identified as EU-30 are greater than 25 and 15 tons per year, respectively. Pursuant to SSM 169-24879-00009, the PM emissions from the fiber bond cutting shall be less than 5.7 pounds per hour and the $PM_{10}$ emissions shall be less than 3.42 pounds per hour. The emission limits established, shall limit the PM and $PM_{10}$ emissions to less than 25 and 15 tons per year, respectively and render 326 IAC 2-2 not applicable to 2007 modification

326 IAC 2-6 (Emission Reporting)
The source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit under 326 IAC 2-7, Part 70 program and has the potential to emit greater than 100 tons per year of one criteria pollutant. Pursuant to this rule, the Permittee shall triennially submit an emission statement for the source begining in 2004 and every three years thereafter. The statement must be received by July 1 and contain the minimum requiremnts as specified in 326 IAC 2-6-4. The submittal should cover the period identified in 326 IAC 2-6-3(a).

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

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

**State Rule Applicability – Individual Facilities**

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes
Pursuant to 326 IAC 6-3-2 (e), the allowable particulate matter (PM) emissions, from the following emission units shall not exceed the PM limits as specified in the table below:

| Operation | Process weight (tons/hr) | Allowable Limits (lbs/hr) |
|---|---|---|
| Cupola #2 EU-P2 | 7.0 | 15.1 |
| Cupola #4 EU-P4 | 8.0 | 16.5 |
| Blowchamber #4 EU-P6 | 8.1 | 16.7 |
| Curing Oven #2 (EU-P7) | 7.0 | 15.1 |
| Blowchamber #2 EU-P8 | 8.4 | 17.1 |
| Line trimming/sizing section #2 EU-P9 | 7.0 | 15.1 |
| #2 Line cooling section EU-P10 | 7.0 | 15.1 |
| Fiber board cutting operation EU-P30 | 10.4 | 19.7 |

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

$E = 4.10\ P^{0.67}$

Where:
E = rate of emission in pounds per hour; an
P = process weight rate in tons per hour.

Pursuant to 40 CFR 63.1178, the limit emissions of particulate matter (PM) from each existing, new, or reconstructed cupola is 0.1 lb of PM per ton of melt or less.

(1) Cupola #2 EU-P2:

7 tons of per hour x 0.1 lb /tons = 0.7 lb/hr

(2) Cupola #4 EU-P4

8 tons of per hour x 0.1 lb/ton = 0.8 lb/hr

(3) Curing Oven #2 (EU-P7)

7 tons of per hour x 0.1 lb /tons = 0.7 lb/hr

Therefore, the PM limits for the two cupolas and curing oven from 40 CFR 63, Subpart DDD are more stringent than the PM limits from 326 IAC 6-3-2. Therefore, the two (2) cupolas and the curing oven are exempt from the requirements of 326 IAC 6-3-2.

The control equipment shall be in operation at all times the associated facility is in operation.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2, the particulate emissions from the insignificant activities, brazing equipment, cutting torches, soldering equipment, and welding equipment shall be limited by the following equation:

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

$E = 4.10 P^{0.67}$

Where:

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

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2, the particulate emissions from the insignificant activities, conveyors for coke conveying shall be limited by the following equation:

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

$E = 4.10 P^{0.67}$

Where:

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

326 IAC 6-2-3 (Particulate Emissions Limitations for Indirect Heating Facilities)
The natural gas-fired boiler #2 is subject to 326 IAC 6-2-3 (Particulate Emissions for Sources of indirect Heating) because the boiler was constructed before September 21, 1983, which was the applicability date for this rule.

Pursuant to this rule, the particulate matter emissions from boiler #2 boiler shall be limited as follows:

$$\text{Limit} = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}} = 4.96 \text{ lb/MMBtu}$$

Where:

C = 50 micrograms/cu. Meter, maximum ground level concentration
Q = 4.5 MMBtu/hr, heat input rate
N = 1 number of stacks
a = 0.67 dimensionless, plume rise factor
h = 35 ft, average stack height

Pursuant to 326 IAC 6-2-3(e), since the boiler was constructed after June 8, 1972, the particulate emissions shall not exceed 0.6 lbs/MMBtu**.**

326 IAC 6-2-4 (Particulate Emissions Limitations for Indirect Heating Facilities)
The natural gas-fired #1 Boiler, identified as EU-P11 is subject to 326 IAC 6-2-4 (Particulate Emissions for Sources of indirect Heating) because the boiler was constructed after September 21, 1983, which was the applicability date for this rule.

Pursuant to this rule, the particulate matter emissions from #1 Boiler, identified as EU-P11 shall be limited as follows:

| Year | Unit | Q (MMBtu/hr) | Pt (lb/MMBtu) | Emission Limit (lb/MMBtu) |
|---|---|---|---|---|
| 1990 | 2 Boilers | 17 | 0.522 | 0.522 |

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where:

Pt = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input; and

Q = Total source maximum operating capacity (MMBtu/hr).

The particulate matter (PM) emissions from #1 Boiler, identified as EU-P11 shall not exceed 0.522 lbs/MMBtu**.**

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

(a) The coke-fueled cupolas identified as #2 and #4 have uncontrolled $SO_2$ emissions of more than 25 tons/yr, however, 326 IAC 7-1.1-2 refers to the limit for coal, but since coke is a residual of coal left after destruction distillation, the rule does not apply to coke. Therefore, the sulfur dioxide emissions from the two (2) cupolas due to combustion of coke and natural gas, identified as EU-P2 and EU-P4 are exempt from this rule.

(b) The curing oven #2, identified as EU-P7 has uncontrolled $SO_2$ emissions of more than 25 tons/yr, however, the curing oven does not use coal or fuel oil. Therefore, the curing oven, identified as #2 is exempt from this rule.

326 IAC 11-4 (Fiberglass Insulation manufacturing)
This rule does not apply to the Wabash County source since it is not located in Shelby County.

326 IAC 8-3-2 (Cold Cleaner)
The degreasing operation was constructed prior to January 1, 1980. Therefore, the requirements of 326 IAC 8-3-2 are not applicable.

326 IAC 8-3-5 (Cold Cleaner)
The degreasing operation was constructed prior to January 1, 1980. Therefore, the requirements of 326 IAC 8-3-5 are not applicable.

326 IAC 12 (New sources Performance Standard)
40 CFR 60, Subpart Dc was revised June 13, 2007. However, pursuant to 326 IAC 1-1-3, the version of the rule referenced by 326 IAC 12 was the version in existence on February 27, 2006, which was recently amended on June 13, 2007. Because the June 13, 2007 amendments to federal rule are not approved in 326 IAC 12, the boiler, identified as # 1 is subject to both versions of the rule. Only the Federal version of the rule applies, if the Federal version is different from the State version.

**Compliance Determination and Monitoring Requirements**

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

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

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

(a) Baghouse

| Control | Parameter | Frequency | Range | Excursions and Exceedances |
|---|---|---|---|---|
| Baghouses Controlling #2 trimming /sizing section | Water Pressure Drop | Daily | 1.2 to 6 inches | Response Steps |
| | Visible Emissions | | Normal-Abnormal | |
| Baghouses Controlling fiber bond cutting operations EU-P30 | Water Pressure Drop | Daily | 1 to 7 inches | Response Steps |
| | Visible Emissions | | Normal-Abnormal | |

(b) Dry media filter

| Emission Units | Frequency | Monitoring |
|---|---|---|
| Dry media Filters for two (2) blowchambers, identified as EU-P6 and EU-P8 | Daily | Inspection shall be perform to verify the placement, integrity, and particle loading of the dry media filters. |
| Dry media Filters for two (2) blowchambers, identified as EU-P6 and EU-P8 | Weekly | Observation shall be made of the particulate from the blowchambers stack to monitor the performace of the dry media filters |
| Dry media Filters for two (2) blowchambers, identified as EU-P6 and EU-P8 | Monthly | Inspection shall be performed of the particulate emissions from the stack and the presence of particulate on the rooftops and the nearby ground. |

**Recommendation**

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

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

An application for the purposes of this review was received on April 11, 2005.

**Conclusion**

The operation of this mineral wool manufacturing shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No.T169-21103-00009.

**Appendix A: Emissions Calculations**
**Emission Summary**
**Source Name:** Thermafiber, Inc Wabash Plant
**Source Location:** 3711 Mill Street, Wabash, Indiana 46992
**Permit Number:** T169-21103-00009
**Permit Reviewer:** Josiah Balogun
**Date:** 7-Sep-2007

**Uncontrolled Potential Emissions**

| | PM (tons/yr) | $PM_{10}$ (tons/yr) | $SO_2$ (tons/yr) | VOC (tons/yr) | CO (tons/yr) | NOx (tons/yr) | HAPs (tons/yr) |
|---|---|---|---|---|---|---|---|
| **Emission Unit** | | | | | | | |
| Coke-fueled Cupola #2 EU-P2 | 565.98 | 271.68 | 245.28 | 1.23 | 7665 | 49.06 | 92.64 |
| Coke-fueled Cupola #4 EU-P4 | 646.84 | 336.35 | 280.32 | 1.4 | 8760 | 56.06 | 105.3 |
| Blowchamber #4 EU-P6 | 93.56 | 41.35 | 3.05 | 322.37 | 0 | 0 | 4.56 |
| Curing Oven EU-P7 | 11.96 | 11.34 | 36.79 | 30.66 | 0 | 4.91 | 0 |
| Blowchamber #2 EU-P8 | 29.74 | 29.13 | 2.67 | 27.59 | 0 | 0 | 0.34 |
| #2 Line trimming/Sizing EU-P9 | 15.18 | 15.18 | 0 | 0 | 0 | 0 | 0 |
| #2 Line Cooling EU-P10 | 73.58 | 58.25 | 2.08 | 1.23 | 0 | 0 | 0 |
| Fiber bond cutting EU-P30 (New Baghouse) | 729 | 729 | 0 | 0 | 0 | 0 | 0 |
| Fiber bond cutting EU-P30 (Existing Baghouse) | | | | | | | |
| Boiler #1 | 0.1 | 0.4 | 0.03 | 0.3 | 4.6 | 5.5 | 0.11 |
| Boiler #2 | 0 | 0.1 | 0 | 0.1 | 1.7 | 2 | 0.038 |
| Combustion Units | 0.2 | 0.9 | 0.1 | 0.7 | 10.4 | 12.4 | 0.22 |
| Insignificant Activities | 0.24 | 0.24 | 0.2 | 0.5 | 0.6 | 3 | neg |
| Total Emissions | 2166.4 | 1493.9 | 570.52 | 386.08 | 16442.3 | 132.9 | 203.2 |

**Appendix A: Emissions Calculations**
**Emission Summary**
**Source Name:** Thermafiber, Inc Wabash Plant
**Source Location:** 3711 Mill Street, Wabash, Indiana 46992
**Permit Number:** T169-21103-00009
**Permit Reviewer:** Josiah Balogun
**Date:** 7-Sep-2007

**Limited Potential Emissions**

| | PM (tons/yr) | $PM_{10}$ (tons/yr) | $SO_2$ (tons/yr) | VOC (tons/yr) | CO (tons/yr) | NOx (tons/yr) | HAPs (tons/yr) |
|---|---|---|---|---|---|---|---|
| **Emission Unit** | | | | | | | |
| Coke-fueled Cupola #2 EU-P2 | 3.1 | 271.68 | 245.28 | 1.23 | 7665 | 49.06 | 92.64 |
| Coke-fueled Cupola #4 EU-P4 | 3.5 | 336.35 | 280.32 | 1.4 | 8760 | 56.06 | 105.3 |
| Blowchamber #4 EU-P6 | 73.15 | 41.34 | 3.05 | 29.01 | 0 | 0 | 4.56 |
| Curing Oven EU-P7 | 3.1 | 11.34 | 36.79 | 30.66 | 0 | 4.91 | 0 |
| Blowchamber #2 EU-P8 | 29.74 | 29.13 | 2.67 | 27.59 | 0 | 0 | 0.34 |
| #2 Line trimming/Sizing EU-P9 | 15.18 | 15.18 | 2.08 | 0 | 0 | 0 | 0 |
| #2 Line Cooling EU-P10 | 67.89 | 58.25 | 0 | 1.23 | 0 | 0 | 0 |
| Fiber bond cutting EU-P30 (New baghouse) | Less than 25 | less than 15 | 0 | 0 | 0 | 0 | 0 |
| Fiber bond cutting EU-P30 (Existing baghouse) | | | | | | | |
| Boiler #1 | 0.1 | 0.4 | 0.03 | 0.3 | 4.6 | 5.5 | 0.11 |
| Boiler #2 | 0 | 0.1 | 0 | 0.1 | 1.7 | 2 | 0.038 |
| Combustion Units | 0.2 | 0.9 | 0.1 | 1.2 | 10.4 | 12.4 | 0.22 |
| Insignificant Activities | 0.2 | 0.2 | 0.2 | 0.5 | 0.6 | 3 | neg |
| Total Emissions | less than 221.2 | less than 779.9 | 570.52 | 93.22 | 16442.3 | 132.93 | 203.21 |

**Appendix A: Emission Calculations**
**P2**

**Company Name:** Thermafiber, Inc Wabash Plant
**Plant Location:** 3711 Mill Street, Wabash, Indiana 46992
**Permit Number** T169-21103-00009
**Permit Reviewer:** Josiah Balogun
**Date** 7-Sep-2007

| Process | Rate (ton /hr) | Pollutant | Ef (lb/ton produced) | Ebc (tons/yr) | Eac (tons/yr) | Type of Control | Control Efficiency (%) |
|---|---|---|---|---|---|---|---|
| Cupola #2 EU-P2 | 7 | PM | 18.46 | 565.98 | 61.13 | Baghouse | 89.20% |
| | | $PM_{10}$ | 8.8610 | 271.68 | 29.34 | Baghouse | 89.20% |
| | | SO2 | 8.00 | 245.28 | 245.28 | | |
| | | NOx | 1.60 | 49.06 | 49.06 | | |
| | | VOC | 0.04 | 1.23 | 1.23 | | |
| | | CO | 250.00 | 7665.00 | 7665.00 | | |
| | | chromium | 0.0003240 | 0.0099 | 0.0011 | | |
| | | manganese | 0.0036 | 0.11 | 0.01 | | |
| | | nickel | 0.00022 | 0.49 | 0.05 | | |
| | | arsenic | 0.000041 | 0.00126 | 0.0001 | | |
| | | cadmium | 0.000067 | 0.0021 | 0.0002 | | |
| | | selenium | 0.000108 | 0.0033 | 0.0004 | | |
| | | Carbonyl sulfide | 0.001500 | 91.9800 | 91.9800 | | |
| | | Barium | 0.000473 | 0.0145 | 0.0016 | | |
| | | Beryllium | 0.000058 | 0.0018 | 0.0002 | | |
| | | Antimony | 0.000756 | 0.0232 | 0.0025 | | |
| | | Lead | 0.0000604 | 0.00185 | 0.0002 | | |

**Methodology**

Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
PM and $PM_{10}$ emission factor from stack testing
Other emision factors from AP 42 Ch 11 Table 11.18-4 ( $SO_2$ and CO) and Table 11.18-6 (NOx)
Carbonyl sulfide emission factor was based on engineering judgement
All other HAPs emission factor from US EPA Birmingham tests

**Appendix A: Emission Calculations**
**P4**
**Company Name:** Thermafiber, Inc Wabash Plant
**Plant Location:** 3711 Mill Street, Wabash, Indiana 46992
**Permit Number** T169-21103-00009
**Permit Reviewer:** Josiah Balogun
**Date** 7-Sep-2007

| Process | Rate (tons/hr) | Pollutant | Ef (lb/ton produced) | Ebc (tons/yr) | Eac (tons/yr) | Type of Control | Control Efficiency (%) |
|---|---|---|---|---|---|---|---|
| Cupola #4 EU-P4 | 8 | PM | 18.46 | 646.84 | 54.98 | Baghouse | 91.50% |
| | | $PM_{10}$ | 9.599 | 336.35 | 28.59 | Baghouse | 91.50% |
| | | SO2 | 8 | 280.32 | 280.32 | | |
| | | NOx | 1.6 | 56.06 | 56.06 | | |
| | | VOC | 0.04 | 1.40 | 1.40 | | |
| | | CO | 250 | 8760.00 | 8760.00 | | |
| | | chromium | 0.000324 | 0.01 | 0.001 | | |
| | | manganese | 0.0036 | 0.13 | 0.011 | | |
| | | nickel | 0.00022 | 0.01 | 0.001 | | |
| | | arsenic | 0.000041 | 0.0014 | 0.0001 | | |
| | | cadmium | 0.000067 | 0.0023 | 0.0002 | | |
| | | selenium | 0.000108 | 0.0038 | 0.0003 | | |
| | | Lead | 0.0000604 | 0.00212 | 0.0002 | | |
| | | Carbonyl sulfide | 0.0015 | 105.12 | 105.12 | | |
| | | Beryllium | 0.000058 | 0.0020 | 0.0002 | | |
| | | Antimony | 0.000756 | 0.0265 | 0.0023 | | |

Methodology
Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
PM and $PM_{10}$ emission factor from stack testing
Other emision factors from AP 42 Ch 11 Table 11.18-4 ( $SO_2$ and CO) and Table 11.18-6 (NOx)
Carbonyl sulfide emission factor was based on engineering judgement
All other HAPs emission factor from US EPA Birmingham tests

**Appendix A: Emission Calculations**
**P6**
**Company Name:** Thermafiber, Inc Wabash Plant
**Plant Location:** 3711 Mill Street, Wabash, Indiana 46992
**Permit Number** T169-21103-00009
**Permit Reviewer:** Josiah Balogun
**Date** 7-Sep-2007

| Process | Rate (tons billets/hr) | Pollutant | Ef (lb/ton produced) | Ebc (tons/yr) | Eac (tons/yr) | Type of Control | Control Efficiency (%) |
|---|---|---|---|---|---|---|---|
| Blowchamber #4 EU-P6 | 8.0 | PM | 2.67 | 93.56 | 58.0 | Dry media filter | 38.00% |
| | | $PM_{10}$ | 1.1800 | 41.35 | 41.35 | | |
| | | SO2 | 0.087 | 3.05 | 3.05 | | |
| | | NOx | 0.00 | 0.00 | 0.00 | | |
| | | VOC | 9.20 | 322.37 | 29.01 | | 91.00% |
| | | CO | 0.00 | 0.00 | 0.00 | | |
| | | chromium | 0.07 | 2.56 | 2.56 | | |
| | | manganese | 0.01 | 0.25 | 0.25 | | |
| | | nickel | 0.04 | 1.44 | 1.44 | | |
| | | arsenic | 0.00 | 0.02 | 0.02 | | |
| | | cadmium | 0.00 | 0.01 | 0.01 | | |
| | | fine mineral fiber | 0.01 | 0.28 | 0.28 | | |

Methodology
Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
PM and $PM_{10}$ emission factors from stack testing
$SO_2$ emission factor from SCC# 3-05-017-03
The emission factor for VOC and Fine mineral fiber was from the test from an other similar plant

**Appendix A: Emission Calculations**
**P7**
**Company Name:** Thermafiber, Inc Wabash Plant
**Plant Location:** 3711 Mill Street, Wabash, Indiana 46992
**Permit Number** T169-21103-00009
**Permit Reviewer:** Josiah Balogun
**Date** 7-Sep-2007

| Process | Rate (tons billets/hr) | Pollutant | Ef (lb/ton produced) | Ebc (tons/yr) | Eac (tons/yr) | Type of Control | Control Efficiency (%) |
|---|---|---|---|---|---|---|---|
| Curing Oven #2 EU-P7 | 7.0 | PM | 0.39 | 11.96 | 11.96 | Regenerative Themal Oxidizer | 95.00% |
| | | $PM_{10}$ | 0.37 | 11.34 | 11.34 | | |
| | | SO2 | 1.2 | 36.79 | 36.79 | | |
| | | NOx | 0.16 | 4.91 | 4.91 | | |
| | | VOC | 1 | 30.66 | 1.53 | | |

Methodology

Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
PM and $PM_{10}$ emission factors were based upon stack testing from a 4.42 TPH curing oven at their Tacoma Washington Plant
Other emission factors from US EPA SCC# 3-05-017-04

**Appendix A: Emission Calculations**
**P8**
**Company Name:** Thermafiber, Inc Wabash Plant
**Plant Location:** 3711 Mill Street, Wabash, Indiana 46992
**Permit Number** T169-21103-00009
**Permit Reviewer:** Josiah Balogun
**Date** 7-Sep-2007

| Process | Rate (tons billets/hr) | Pollutant | Ef (lb/ton produced) | Ebc (tons/yr) | Eac (tons/yr) | Type of Control | Control Efficiency (%) |
|---|---|---|---|---|---|---|---|
| Blowchamber #2 EU-P8 | 7.0 | PM | 0.97 | 29.74 | 25.84 | Dry media filter | 13.10% |
| | | $PM_{10}$ | 0.95 | 29.13 | 25.31 | | 13.10% |
| | | SO2 | 0.087 | 2.67 | 2.67 | | |
| | | NOx | 0.00 | 0.00 | 0.00 | | |
| | | VOC | 0.90 | 27.59 | 27.59 | | |
| | | CO | 0.00 | 0.00 | 0.00 | | |
| | | fine min. fiber | 0.011 | 0.34 | 0.34 | | |

Methodology

Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb

Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
Emission factors for PM, $PM_{10}$ and Mineral fiber were from stack testing
Other emission factors from US EPA SCC# 3-05-017-03

**Appendix A: Emission Calculations**
**P9**
**Company Name:** Thermafiber, Inc Wabash Plant
**Plant Location:** 3711 Mill Street, Wabash, Indiana 46992
**Permit Number** T169-21103-00009
**Permit Reviewer:** Josiah Balogun
**Date** 7-Sep-2007

| Process | Rate (tons bars/hr) | Pollutant | Ef (lb/ton produced) | Ebc (tons/yr) | Eac (tons/yr) | Type of Control | Control Efficiency (%) |
|---|---|---|---|---|---|---|---|
| #2 Line trimming/sizing section EU-P9 | 7.0 | PM | 0.495 | 15.18 | 15.18 | none | none |
| | | $PM_{10}$ | 0.495 | 15.18 | 15.18 | | |
| | | SO2 | 0.00 | 0.00 | 0.00 | | |
| | | NOx | 0.00 | 0.00 | 0.00 | | |
| | | VOC | 0.00 | 0.00 | 0.00 | | |
| | | CO | 0.00 | 0.00 | 0.00 | | |

Methodology

Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb

Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
Based on a grain loading of 0.02 grains per cubic foot of outlet air and flow rate of 20,000cfm
Uncontrolled = 0.02 x20,000 x 60 x 1/7000 = 3.43 lb/hr
3.43 lb/hr x 8760/2000 = 15.02 tons/year

**Appendix A: Emission Calculations**
**P10**
**Company Name:** Thermafiber, Inc Wabash Plant
**Plant Location:** 3711 Mill Street, Wabash, Indiana 46992
**Permit Number** T169-21103-00009
**Permit Reviewer:** Josiah Balogun
**Date** 7-Sep-2007

| Process | Rate (tons iron/hr) | Pollutant | Ef (lb/ton produced) | Ebc (tons/yr) | Eac (tons/yr) | Type of Control | Control Efficiency (%) |
|---|---|---|---|---|---|---|---|
| #2 Line cooling section EU-P10 | 7.0 | PM | 2.4 | 73.58 | 73.58 | none | none |
| | | $PM_{10}$ | 1.9 | 58.25 | 58.25 | | |
| | | SO2 | 0.068 | 2.08 | 2.08 | | |
| | | NOx | 0.00 | 0.00 | 0.00 | | |
| | | VOC | 0.04 | 1.23 | 1.23 | | |
| | | CO | 0.00 | 0.00 | 0.00 | | |

Methodology

Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb

Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
Emission factors frm US EPA Airs SCC# 3-05-017-05

**Appendix A: Emissions Calculations**
**Natural Gas Combustion Only**
**MM BTU/HR <100**
Boiler #1

**Company Name:** Thermafiber, Inc Wabash Plant
**Address City IN Zip:** 3711 Mill Street, Wabash, Indiana 46992
**Permit Number:** T169-21103-00009
**Reviewer:** Josiah Balogun
**Date:** 7-Sep-2007

| Heat Input Capacity MMBtu/hr | Potential Throughput MMCF/yr |
|---|---|
| 12.5 | 109.5 |

| | 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 | 0.1 | 0.4 | 0.03 | 5.5 | 0.3 | 4.6 |

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 11 for HAPs emissions calculations.

**Appendix A: Emissions Calculations**
**Natural Gas Combustion Only**
**MM BTU/HR <100**
Boiler #1
**HAPs Emissions**

**Company Name:** Thermafiber, Inc Wabash Plant
**Address City IN Zip:** 3711 Mill Street, Wabash, Indiana 46992
**Permit Number:** T169-21103-00009
**Reviewer:** Josiah Balogun
**Date:** 7-Sep-2007

| | 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 | 1.150E-04 | 6.570E-05 | 4.106E-03 | 9.855E-02 | 1.862E-04 |

| | 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 | 2.738E-05 | 6.023E-05 | 7.665E-05 | 2.081E-05 | 1.150E-04 |

Methodology is the same as page 10.

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

**Appendix A: Emissions Calculations**
**Natural Gas Combustion Only**
**MM BTU/HR <100**
Boiler #2

**Company Name:** Thermafiber, Inc Wabash Plant
**Address City IN Zip:** 3711 Mill Street, Wabash, Indiana 46992
**Permit Number:** T169-21103-00009
**Reviewer:** Josiah Balogun
**Date:** 7-Sep-2007

| Heat Input Capacity MMBtu/hr | Potential Throughput MMCF/yr |
|---|---|
| 4.5 | 39.4 |

| | 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 | 0.1 | 0.0 | 2.0 | 0.1 | 1.7 |

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
See page 13 for HAPs emissions calculations.

**Appendix A: Emissions Calculations**
**Natural Gas Combustion Only**
**MM BTU/HR <100**
Boiler #2
**HAPs Emissions**

**Company Name:** Thermafiber, Inc Wabash Plant
**Address City IN Zip:** 3711 Mill Street, Wabash, Indiana 46992
**Permit Number:** T169-21103-00009
**Reviewer:** Josiah Balogun
**Date:** 7-Sep-2007

| | 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 | 4.139E-05 | 2.365E-05 | 1.478E-03 | 3.548E-02 | 6.701E-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 | 9.855E-06 | 2.168E-05 | 2.759E-05 | 7.490E-06 | 4.139E-05 |

Methodology is the same as page 12.

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

**Appendix A: Emissions Calculations**
**Natural Gas Combustion Only**
**MM BTU/HR <100**
**Natural Gas Combustion for Copulas P2, P4 and Curing Oven**

**Company Name:** Thermafiber, Inc Wabash Plant
**Address City IN Zip:** 3711 Mill Street, Wabash, Indiana 46992
**Permit Number:** T169-21103-00009
**Reviewer:** Josiah Balogun
**Date:** 7-Sep-2007

**Curing Oven = 5.7 MMBtu/hr**
**Cupola P2 = 10.47 MMBtu/hr**
**Cupola P4 = 11.97 MMBtu/hr**
**Total = 28.14 MMBtu/hr**

| Heat Input Capacity MMBtu/hr | Potential Throughput MMCF/yr |
|---|---|
| 28.14 | 246.5 |

| | 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 | 0.2 | 0.9 | 0.1 | 12.3 | 0.7 | 10.4 |

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
See page 15 for HAPs emissions calculations.

**Appendix A: Emissions Calculations**
**Natural Gas Combustion Only**
**MM BTU/HR <100**
**Natural Gas Combustion for Copulas P2, P4 and Curing Oven**
**HAPs Emissions**

**Company Name:** Thermafiber, Inc Wabash Plant
**Address City IN Zip:** 3711 Mill Street, Wabash, Indiana 46992
**Permit Number:** T169-21103-00009
**Reviewer:** Josiah Balogun
**Date:** 7-Sep-2007

| | 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 | 2.588E-04 | 1.479E-04 | 9.244E-03 | 2.219E-01 | 4.191E-04 |

| | 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 | 6.163E-05 | 1.356E-04 | 1.726E-04 | 4.684E-05 | 2.588E-04 |

Methodology is the same as page 14.

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

**Appendix A: Emission Calculations**
**PM and PM10 Emissions (Existing Baghouse)**
**From Saw Cutting Stations (EU-P30) at Fiber Board Cutting Operation**

**Company Name:** Thermafiber, Inc Wabash Plant
**Address City IN Zip:** 3711 Mill Street, Wabash, Indiana 46992
**Permit Number:** T169-21103-00009
**Reviewer:** Josiah Balogun
**Date:** 7-Sep-2007

**1. Potential to Emit $PM/PM_{10}$ - Captured Emissions:**

| Baghouse ID | Process Description | Control Device | Outlet Grain Loading (gr/dscf) | Maximum Air Flow Rate (scfm) | $PM/PM_{10}$ After Control * (lb/hr) | $PM/PM_{10}$ After Control * (ton/yr) | Control Efficiency (%) | $PM/PM_{10}$ Before Control (ton/yr) |
|---|---|---|---|---|---|---|---|---|
| DC-30 | Saw Cutting | Baghouse | 0.03 | 4,000 | 1.03 | 4.51 | 98.3% | 265 |
| **Total** | | | | | | **4.51** | | **265** |

* Assume all PM emissions equal PM10 emissions.

**Methodology**

PTE of $PM/PM_{10}$ After Control (lb/hr) = Grain Loading (gr/dscf) x Max. Air Flow Rate (scfm) x 60 min/hr x 1 lb/7000 gr

PTE of $PM/PM_{10}$ After Control (ton/yr) = Grain Loading (gr/dscf) x Max. Air Flow Rate (scfm) x 60 min/hr x 1 lb/7000 gr x 8760 hr/yr x 1 ton/2000 lb

PTE of $PM/PM_{10}$ Before Control (ton/yr) = PTE of $PM/PM_{10}$ After Control (ton/yr) / (100% - Control Efficiency %)

**Appendix A: Emission Calculations**
**PM and PM10 Emissions (New Baghouse)**
**From Saw Cutting Stations (EU-P30) at Fiber Board Cutting Operation**

**Company Name:** Thermafiber, Inc Wabash Plant
**Address City IN Zip:** 3711 Mill Street, Wabash, Indiana 46992
**Permint Number:** T169-21103-00009
**Reviewer:** Josiah Balogun
**Date:** 7-Sep-2007

**1. Potential to Emit $PM/PM_{10}$ - Captured Emissions:**

| Baghouse ID | Process Description | Control Device | Outlet Grain Loading (gr/dscf) | Maximum Air Flow Rate (scfm) | $PM/PM_{10}$ After Control * (lb/hr) | $PM/PM_{10}$ After Control * (ton/yr) | Control Efficiency (%) | $PM/PM_{10}$ Before Control (ton/yr) |
|---|---|---|---|---|---|---|---|---|
| DC-30 | Saw Cutting | Baghouse | 0.03 | 7,000 | 1.80 | 7.88 | 98.3% | 464 |
| **Total Emissions** | | | | | | **7.88** | | **464** |

* Assume all PM emissions equal $PM_{10}$ emissions.

**Methodology**

PTE of $PM/PM_{10}$ After Control (lb/hr) = Grain Loading (gr/dscf) x Max. Air Flow Rate (scfm) x 60 min/hr x 1 lb/7000 gr

PTE of $PM/PM_{10}$ After Control (ton/yr) = Grain Loading (gr/dscf) x Max. Air Flow Rate (scfm) x 60 min/hr x 1 lb/7000 gr x 8760 hr/yr x 1 ton/2000 lb

PTE of $PM/PM_{10}$ Before Control (ton/yr) = PTE of $PM/PM_{10}$ After Control (ton/yr) / (100% - Control Efficiency %)

**Appendix A: Emissions Calculations**
**Diesel Engine**

**Company Name:** Thermafiber, Inc Wabash Plant
**Address City IN Zip:** 3711 Mill Street, Wabash, Indiana 46992
**Permit Number:** T169-21103-00009
**Reviewer:** Josiah Balogun
**Date:** 7-Sep-2007

| Heat Input Capacity MMBtu/hr | Potential Throughput Kgal/yr |
|---|---|
| 0.153 | 9.8 |

| | Pollutant | | | | | |
|---|---|---|---|---|---|---|
| | PM* | PM10* | SO2 | NOx | VOC | CO |
| Emission Factor in lbs/kgal | 42.5 | 42.5 | 39.7 | 604.0 **see below | 0.0 | 130.0 |
| Potential Emission in tons/yr | 0.2 | 0.2 | 0.2 | 3.0 | 0.0 | 0.6 |

**Methodology**
Potential Throughput (Kgal/yr) = Heat Input Capacity (MMBtu/hr) x 1/(Heating Value*Density) x 1lb/1000gal x 8,760 hrs/yr
Emission (tons/yr) = Throughput (Kgal) x Emission Factor (lb/kgal)/2,000 lb/ton
Emission Factors are from Distillate oil (Diesel) SCC #2-02-001-02
Heating Value (MMBtu/lb) AP 42 Ch 3 Table 3.3-1
Density (lb/gal): density for Distillate Oil 7.05 lb/gal

See page 19 for HAPs emissions calculations.

**Appendix A: Emissions Calculations**
**Diesel Engine**
**MM BTU/HR <100**
**HAPs Emissions**

**Company Name:** Thermafiber, Inc Wabash Plant
**Address City IN Zip:** 3711 Mill Street, Wabash, Indiana 46992
**Permit Number:** T169-21103-00009
**Reviewer:** Josiah Balogun
**Date:** 7-Sep-2007

| | HAPs - Organics | | | | |
|---|---|---|---|---|---|
| | Benzene | Xylene | Formaldehyde | Proylene | Toluene |
| Emission Factor in lb/MMcf | 9.3E-04 | 2.9E-04 | 1.18E-03 | 2.6E-03 | 4.1E-04 |
| Potential Emission in tons/yr | 4.563E-06 | 1.394E-06 | 5.771E-06 | 1.262E-05 | 2.000E-06 |

| | HAPs - Organics | | | |
|---|---|---|---|---|
| | 1,3-Butadiene | Acetaldehyde | Acrolein | Total PAH |
| Emission Factor in lb/MMcf | 3.9E-05 | 7.7E-04 | 9.3E-05 | 1.7E-04 |
| Potential Emission in tons/yr | 1.912E-07 | 3.751E-06 | 4.524E-07 | 8.216E-07 |

Methodology is the same as page 18.

HAPs emission factors are available in AP-42, Chapter 3 Table 3.3-2

**Appendix A: Emission Calculations**
**Insignificant Activities**

**Company Name:** Thermafiber, Inc Wabash Plant
**Address City IN Zip:** 3711 Mill Street, Wabash, Indiana 46992
**Permit Number:** T169-21103-00009
**Reviewer:** Josiah Balogun
**Date:** 7-Sep-2007

(1) VOC Emissions From Degreasing Operations

145 gallons/year x 7.36 lbs VOC/gal x 1 ton/2000lbs = 0.5 tons VOC/year

(2) Conveyors for coal or coke conveying of less than 50 tons per day.
The source supplied and emission factor of 0.02827 lbs/ton
80 tons/day x 0.02827 lbs/tons = 2.26 lbs/day
2.26 lbs/day /24hr = 0.094 lbs/hr