



*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: September 7, 2006  
RE: ISG Burns Harbor, Inc- Calumite, LLC / 127-23207-00024  
FROM: Nisha Sizemore  
Chief, Permits Branch  
Office of Air Quality

### **Notice of Decision: Approval – Effective Immediately**

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

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

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

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

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

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

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

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

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

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

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

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



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## PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

**Calumite Company, LLC-  
a contractor of ISG Burns Harbor, LLC  
915 Sun Drive  
Portage, Indiana 46368**

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

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

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

Operation Permit No.: T127-23207-00024	
Original signed by: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: September 7, 2006  Expiration Date: September 7, 2011

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## SECTION A

## SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the emission units contained in conditions A.1, A.2, A.3, and A.4 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval 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)]

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The Permittee owns and operates a process by which blast furnace and basic oxygen furnace slag is converted into calumite.

Responsible Official: Plant Superintendent  
Source Address: 915 Sun Drive, Portage, Indiana 46368  
Mailing Address: 1575 Adler Circle, Suite C5, P.O. Box 535, Portage, Indiana 46368  
General Source Phone Number: (219)787-9586  
SIC Code: 3295  
County Location: Porter  
Source Location Status: Nonattainment for PM 2.5  
Nonattainment for the 8 hour ozone standard  
Attainment for all other criteria pollutants  
Source Status: Part 70 Permit Program  
Major Source under PSD and Emission Offset Rules  
Major Source, Section 112 of the Clean Air Act  
1 of 28 Listed Source Categories

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

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Calumite Company, LLC, owns and operates this calumite plant, and is a contractor of ISG Burns Harbor, LLC:

- (a) ISG Burns Harbor, LLC (plant ID 127-00001), the primary operation, is located at U.S. Highway 12, Burns Harbor, Indiana; and
- (b) Calumite Company, LLC (plant ID 127-00024), the secondary operation, is located at 915 Sun Drive, Portage, Indiana.

Separate Part 70 permits will be issued to ISG Burns Harbor, LLC (TV 127-6301-00001) and Calumite Company, LLC (TV 127-23207-00024) solely for administrative purposes.

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

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Calumite Company, LLC consists of the following emission units, and pollution control devices:

One (1) calumite plant, constructed in 1980 and modified in 2000, with a maximum capacity of 40 tons per hour, consisting of the following equipment:

- (a) One (1) receiving and feed operation with fugitive emissions, consisting of:
  - (1) Six (6) feed bin hoppers, installed in 2000, with a maximum capacity of 160 tons per hour total.
  - (2) One (1) crusher, installed in 2000, with a maximum capacity of 160 tons per hour.
  - (3) Three (3) conveyors, installed in 2000, with a maximum capacity of 160 tons per hour each.
  - (4) One (1) screen, installed in 2000, with a maximum capacity of 160 tons per hour.
  - (5) One (1) recirculating conveyor, installed in 2000, with a maximum capacity of 60 tons per hour.
  - (6) One (1) hopper, installed in 1980, with a maximum capacity of 160 tons per hour.
  - (7) One (1) vibratory feeder, installed in 1980, with a maximum capacity of 75 tons per hour.
  - (8) One (1) dryer feed conveyor, installed in 1980, with a maximum capacity of 75 tons per hour.
  - (9) One (1) magnet and FE bunker, installed in 1980, servicing the slag dryer feed system.
- (b) One (1) slag dryer, identified as 207, installed in 1980 and modified in 1994, with a maximum capacity of 40 tons per hour, equipped with an oil-fired burner with a maximum heat input capacity of 52.2 MMBtu per hour when combusting No.2 fuel oil equivalent and 49.3 MMBtu per hour when combusting No.4

fuel oil equivalent, with particulate emissions controlled by the hot gas baghouse identified as 237, exhausting through stack No.1.

- (c) One (1) calumite screening tower process consisting of:
- (1) One (1) No.1 bucket elevator, constructed in 2000, with a maximum capacity of 300 tons per hour, with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (2) One (1) No.2 bucket elevator, constructed in 1980, with a maximum capacity of 110 tons per hour, with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (3) Two (2) screens, constructed in 2000, with a maximum capacity of 88.5 tons per hour each, with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (4) Two (2) Midwestern (fines) screens, installed in 2001, with a maximum capacity of 6 tons per hour each, with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (5) Two (2) vibratory feeders, installed in 2000, with a maximum capacity of 32.8 tons per hour each with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (6) Two (2) rare earth magnets and one FE bunker with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (7) One (1) Stedman crusher (cage mill), constructed in 1980, with a maximum capacity of 111 tons per hour, with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (8) One (1) No.1 screw conveyor, constructed in 1980, with a maximum capacity of 106 tons per hour, with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (9) One (1) No.2 screw conveyor, constructed in 1980, with a maximum capacity of 42 tons per hour, with particulate emissions controlled by the loadout baghouse identified as 235, exhausting through Stack No.5.
  - (10) One (1) railcar loadout bin with a maximum capacity of 42 tons per hour, with particulate emissions controlled by the loadout baghouse identified as 235, exhausting through Stack No.5.
  - (11) One (1) truck loadout bin with a maximum holding capacity of 42 tons per hour, with particulate emissions controlled by the loadout baghouse identified as 235, exhausting through Stack No.5.
  - (12) Two (2) horizontal screw conveyors servicing the hot gas baghouse.
  - (13) One (1) product dust loadout bin servicing the hot gas baghouse and the fugitive dust baghouse, with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (14) One (1) abrasives bin and feeder with a maximum holding capacity of 170 tons.

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

Calumite Company, LLC also consists of the following insignificant activities that are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) The following VOC and HAP storage containers [326 IAC 8-9]:
  - (A) Storage tanks with capacity less than or equal to 1000 gallons and annual throughputs equal to or less than 12,000 gallons.
  - (B) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (b) Degreasing operations that do not exceed 145 gallons per 12 month, except if subject to 326 IAC 20-6. [326 IAC 8-3]
- (c) 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]
- (d) Stock piles with particulate emissions equal to or less than insignificant thresholds [326 IAC 2-7-1(21)].

A.5 Part 70 Permit Applicability [326 IAC 2-7-2]

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

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

## SECTION B

## GENERAL CONDITIONS

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

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

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

- (a) This permit, T127-23207-00024, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

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

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

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

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

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

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

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

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

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

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

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. 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)]**

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- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:

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

and

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

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

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

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

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- (a) The Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, for the source as described in 326 IAC 1-6-3. At a minimum, the PMPs shall include:

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

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

the Permittee notifies:

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

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

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ, 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).

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

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- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

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

and for the Northwest Regional Office;

Telephone Number: 1-888-209-8892 (ask for Office of Air Quality, Compliance Section)  
Telephone Number: 219-757-0265 (ask for Air Compliance Section)  
Facsimile Number: 219-757-0267

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

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

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

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

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

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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

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

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

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

- (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
  - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
  - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
  - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
  - (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
  - (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

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

- (a) All terms and conditions of permits established prior to T127-23207-00024 and issued pursuant to permitting programs approved into the state implementation plan have been:
  - (1) incorporated as originally stated,
  - (2) revised under 326 IAC 2-7-10.5, or
  - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this combined permit, all previous registrations and permits are superseded by this combined new source review and part 70 operating permit

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

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

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

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

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

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

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

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

permit.

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

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

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

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

Request for renewal shall be submitted to:

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

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

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

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- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC

2-7-12 whenever the Permittee seeks to amend or modify this permit.

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

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

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

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

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

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

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

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

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

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

and

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

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

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

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

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:
- (1) A brief description of the change within the source;
  - (2) The date on which the change will occur;
  - (3) Any change in emissions; and
  - (4) Any permit term or condition that is no longer applicable as a result of the change.

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

- (c) Emission Trades [326 IAC 2-7-20(c)]  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

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

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

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

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

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

photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

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

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:
- Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251
- The application, which shall be submitted by the Permittee, does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

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

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. In the event that the source is a sub-contractor and is combined with a larger Part 70 source, the larger Part 70 source may pay the Permittees' annual fees as part of the larger source billing and subject to the fee cap of the larger source. If, however, the larger Part 70 does not pay its annual Part permit fee, IDEM, OAQ will assess a separate fee in accordance with 326 IAC 2-7-19(c) to be paid by the Permittee. 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.

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

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

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

## SECTION C

## SOURCE OPERATION CONDITIONS

### Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality

100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

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

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, 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]**

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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)]**

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

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

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

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

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

#### **C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

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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)]**

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- (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]**

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

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:  
  
Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251  
  
within ninety (90) days after the date of issuance of this permit.  
  
The ERP does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ, 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]**

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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]**

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- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
  - (1) initial inspection and evaluation;
  - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
  - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
  - (1) monitoring results;

- (2) review of operation and maintenance procedures and records;
- (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
  - (1) monitoring data;
  - (2) monitor performance data, if applicable; and
  - (3) corrective actions taken.

**C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

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

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

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

- (a) Pursuant to 326 IAC 2-6-3(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  
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] [326 IAC 2-3]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.
- (c) If there is a reasonable possibility that a "project" (as defined in 326 IAC 2-2-1 (qq) and/or 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/or 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/or 326 IAC 2-3-1 (mm)), the Permittee shall comply with following:
  - (1) Prior to commencing the construction of the "project" (as defined in 326 IAC 2-2-1 (qq) and/or 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/or 326 IAC 2-3-1(mm)(2)(A)(iii); and
      - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
  - (2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
  - (3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

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

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is

submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C- General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
  - (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and
  - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(ii).
- (g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:
  - (1) The name, address, and telephone number of the major stationary source.
  - (2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C- General Record Keeping Requirements.
  - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
  - (4) Any other information that the Permittee deems fit to include in this report.

Reports required in this part shall be submitted to:

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

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

### **Stratospheric Ozone Protection**

#### **C.20 Compliance with 40 CFR 82 and 326 IAC 22-1**

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

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the

standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: One (1) calumite plant, constructed in 1980 and modified in 2000, with a maximum capacity of 40 tons per hour, consisting of the following equipment:

- (a) One (1) receiving and feed operation with fugitive emissions, consisting of:
- (10) Six (6) feed bin hoppers, installed in 2000, with a maximum capacity of 160 tons per hour total.
  - (11) One (1) crusher, installed in 2000, with a maximum capacity of 160 tons per hour.
  - (12) Three (3) conveyors, installed in 2000, with a maximum capacity of 160 tons per hour each.
  - (13) One (1) screen, installed in 2000, with a maximum capacity of 160 tons per hour.
  - (14) One (1) recirculating conveyor, installed in 2000, with a maximum capacity of 60 tons per hour.
  - (15) One (1) hopper, installed in 1980, with a maximum capacity of 160 tons per hour.
  - (16) One (1) vibratory feeder, installed in 1980, with a maximum capacity of 75 tons per hour.
  - (17) One (1) dryer feed conveyor, installed in 1980, with a maximum capacity of 75 tons per hour.
  - (18) One (1) magnet and FE bunker, installed in 1980, servicing the slag dryer feed system.
- (b) One (1) slag dryer, identified as 207, installed in 1980 and modified in 1994, with a maximum capacity of 40 tons per hour, equipped with an oil-fired burner with a maximum heat input capacity of 52.2 MMBtu per hour when combusting No.2 fuel oil equivalent and 49.3 MMBtu per hour when combusting No. 4 fuel oil equivalent, with particulate emissions controlled by the hot gas baghouse identified as 237, exhausting through stack No.1.
- (c) One (1) calumite screening tower process consisting of:
- (1) One (1) No.1 bucket elevator, constructed in 2000, with a maximum capacity of 300 tons per hour, with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (2) One (1) No.2 bucket elevator, constructed in 1980, with a maximum capacity of 110 tons per hour, with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (3) Two (2) screens, constructed in 2000, with a maximum capacity of 88.5 tons per hour each, with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (4) Two (2) Midwestern (fines) screens, installed in 2001, with a maximum capacity of 6 tons per hour each, with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (5) Two (2) vibratory feeders, installed in 2000, with a maximum capacity of 32.8 tons per hour each with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (6) Two (2) rare earth magnets and one FE bunker with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (7) One (1) Stedman crusher (cage mill), constructed in 1980, with a maximum capacity of 111 tons per hour, with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (8) One (1) No.1 screw conveyor, constructed in 1980, with a maximum capacity of 106 tons per hour, with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (9) One (1) No.2 screw conveyor, constructed in 1980, with a maximum capacity of 42 tons per hour, with particulate emissions controlled by the loadout baghouse identified as 235, exhausting through Stack No.5.
  - (10) One (1) railcar loadout bin with a maximum capacity of 42 tons per hour, with particulate emissions controlled by the loadout baghouse identified as 235, exhausting through Stack No.5.
  - (11) One (1) truck loadout bin with a maximum holding capacity of 42 tons per hour, with particulate emissions controlled by the loadout baghouse identified as 235, exhausting through Stack No.5.
  - (12) Two (2) horizontal screw conveyors servicing the hot gas baghouse.
  - (13) One (1) product dust loadout bin servicing the hot gas baghouse and the fugitive dust baghouse, with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (14) One (1) abrasives bin and feeder with a maximum holding capacity of 170 tons.

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

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

### D.1.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

- (a) The combined usage of No.2 fuel oil with a sulfur content of 0.5% and No.2 fuel oil equivalent in the slag dryer shall be limited to 1,126,761 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month, so that source-wide SO<sub>2</sub> emissions are restricted to below 40 tons per year.
- (b) For purposes of determining compliance, every 1,000 gallons of No.4 fuel oil burned in the slag dryer burner shall be equivalent to 1,074 gallons of No.2 fuel oil based on SO<sub>2</sub> emissions and a maximum No.4 fuel oil sulfur content of 0.5% such that the total gallons of No.2 fuel oil and No.2 fuel oil equivalent

input does not exceed the limit specified.

Compliance with this usage limit restricts the SO<sub>2</sub> emissions from the slag dryer fuel oil combustion to less than 40 tons per year, and renders 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset) not applicable.

#### D.1.2 Particulate [326 IAC 6-3-2]

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Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the calumite process shall not exceed 42.5 pounds per hour when operating at a process weight rate of 40 tons per hour. The pounds per hour limitation was calculated with the following equation:

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

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

#### D.1.3 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

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Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled by wet suppressant on an as-needed basis.

#### D.1.4 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1] [326 IAC 7-2-1]

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Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations) the SO<sub>2</sub> emissions from the oil-fired slag dryer (stack No.1) stack shall not exceed five tenths (0.5) pound per MMBtu heat input when combusting No.2 or No.4 fuel oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average.

### Compliance Determination Requirements

#### D.1.5 Sulfur Dioxide Emissions and Sulfur Content

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Compliance with condition D.1.4 shall be determined utilizing one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pound per million Btu heat input by:
  - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;
  - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
    - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
    - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the burner using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

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

#### D.1.6 Particulate Matter [326 IAC 2-7-6(6)]

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- (a) The slag dryer baghouse (207), the fugitive dust baghouse (234), and the loadout station baghouse (235) shall be operating at all times their respective processes 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 include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

#### D.1.7 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

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Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled by wet suppressant on an as-needed basis.

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

#### D.1.8 Visible Emissions Notations

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- (a) Visible emission notations of the slag dryer baghouse stack (No.1), the fugitive dust baghouse stack (No.2), and the loadout station baghouse stack (No.5), and process emission points 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.1.9 Parametric Monitoring

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The Permittee shall record the pressure drop across each baghouse used in conjunction with the slag dryer, the screening tower, and the loadout processes, at least once per day when the associated process is in operation. When for any one reading, the pressure drop across the baghouse or the three (3) dust collectors is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, and shall be calibrated in accordance with the manufacturer's specifications. The specifications shall be available on site with the Preventive Maintenance Plan.

#### D.1.10 Broken or Failed Bag Detection

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In the event that bag failure has been observed 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 slag dryer or screening tower processes. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

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

### **D.1.11 Record Keeping Requirements**

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- (a) To document compliance with condition D.1.4, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO<sub>2</sub> emission limit established in condition D.1.4.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
  - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and
- (b) To document compliance with condition D.1.8, the Permittee shall maintain records of visible emission notations of the specified stack exhausts and process emission points.
- (c) To document compliance with condition D.1.9, the Permittee shall maintain records of the pressure drop during normal operation.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### **D.1.12 Reporting Requirements**

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A quarterly summary of the information to document compliance with condition D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

## SECTION D.2

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]: **Insignificant Activities**

- (a) The following VOC and HAP storage containers [326 IAC 8-9]:
  - (A) Storage tanks with capacity less than or equal to 1000 gallons and annual throughputs equal to or less than 12,000 gallons.
  - (B) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (b) Degreasing operations that do not exceed 145 gallons per 12 month, except if subject to 326 IAC 20-6. [326 IAC 8-3]
- (c) 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]
- (d) Stock piles with particulate emissions equal to or less than insignificant thresholds [326 IAC 2-7-1(21)].

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

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

#### **D.2.1 Volatile Organic Liquid Storage Vessels [326 IAC 8-9]**

Pursuant to 326 IAC 8-9-1(b), stationary vessels with a capacity of less than thirty-nine thousand (39,000) gallons (two fuel oil tanks) are subject to the reporting and record keeping provisions of section 6(a) and 6(b) of this rule and are exempt from all other provisions of this rule.

#### **D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-3]**

Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs, the Permittee shall ensure that the following requirements are met:

- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
  - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
  - (B) The solvent is agitated; or
  - (C) The solvent is heated.
- (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
- (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):

- (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
- (B) A water cover when solvent is used is insoluble in, and heavier than, water.
- (C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:

- (1) Close the cover whenever articles are not being handled in the degreaser.
- (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
- (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

#### D.2.3 Volatile Organic Compounds (VOC) [326 IAC 8-3]

Pursuant to 326 IAC 8-3-8 (Material requirements for cold cleaning degreasers), the users, providers, and manufacturers of solvents for use in cold cleaning degreasers in Clark, Floyd, Lake, and Porter Counties, except for solvents intended to be used to clean electronic components shall do the following:

- (a) On and after May 1, 2001, no person shall Operate a cold cleaning degreaser with a solvent vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
- (b) On and after November 1, 1999, all persons subject to the requirements of 326 IAC 8-3-8(c)(1)(B) and (c)(2)(B) shall maintain each of the following records for each purchase:
  - (1) The name and address of the solvent supplier.
  - (2) The date of purchase.
  - (3) The type of solvent.
  - (4) The volume of each unit of solvent.
  - (5) The total volume of the solvent.
  - (6) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
- (c) All records required by 326 IAC 8-3-8 (d) shall be retained on-site for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.

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

##### D.2.4 Record Keeping Requirements

- (a) To document compliance with Condition D.2.2, and pursuant to 326 IAC 8-9, the Permittee must keep records of the following:
  - (1) The vessel identification number;
  - (2) The vessel dimensions; and
  - (3) The vessel capacity.

Records shall be maintained for the life of the vessel.

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

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

### PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Calumite Company, LLC  
Source Address: 915 Sun Drive, Portage, Indiana 46368  
Mailing Address: 1575 Adler Circle, Suite C5, Portage, Indiana 46368  
Part 70 Permit No.: T127-23207-00024

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

Please check what document is being certified:

- 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:

Date:

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

### Part 70 Quarterly Report Slag Dryer Fuel Oil Combustion

Source Name: Calumite Company, LLC  
 Source Address: 915 Sun Drive, Portage, Indiana 46368  
 Mailing Address: 1575 Adler Circle, Suite C5, Portage, Indiana 46368  
 Part 70 Permit No.: T127-23207-00024  
 Facility: Slag Dryer (207)  
 Parameter: No.2 fuel oil and equivalent usage limit to restrict SO<sub>2</sub> emissions  
 Limit: the combined usage of No.2 fuel oil with a sulfur content of 0.5% and No.2 fuel oil equivalent in the slag dryer shall be limited to 1,126,761 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

**QUARTER:**

**YEAR:**

Month	Column 1	Column 2	Column 1 + Column 2
	No.2 fuel oil and equivalent usage This Month (gallons)	No.2 fuel oil and equivalent usage Previous 11 Months	12 Month Total No.2 fuel oil and equivalent usage
Month 1			
Month 2			
Month 3			

- No deviation occurred in this quarter.
- Deviation(s) occurred in this quarter.  
 Deviation has been reported on:

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

Attach a signed certification to complete this report.

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

**PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT**

Source Name: Calumite Company, LLC  
Source Address: 915 Sun Drive, Portage, Indiana 46368  
Mailing Address: 1575 Adler Circle, Suite C5, Portage, Indiana 46368  
Part 70 Permit No.: T127-23207-00024

**This form consists of 2 pages**

**Page 1 of 2**

- |   |
|---|
| <input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12)   |
| <input type="checkbox"/> 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            |
| <input type="checkbox"/> The Permittee must submit notice in writing or by facsimile within two (2) 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 Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , 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: \_\_\_\_\_

Attach a signed certification to complete this report.

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

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

Source Name: Calumite Company, LLC  
Source Address: 915 Sun Drive, Portage, Indiana 46368  
Mailing Address: 1575 Adler Circle, Suite C5, Portage, Indiana 46368  
Part 70 Permit No.: T127-23207-00024

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

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:**

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

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## Indiana Department of Environmental Management Office of Air Quality

### Addendum to the Technical Support Document for a Part 70 Operating Permit

Source Name: Calumite Company, LLC- a contractor of ISG Burns Harbor, LLC  
Source Location: 915 Sun Drive, Portage, Indiana 46368  
County: Porter  
SIC Code: 3295  
Operation Permit No.: T127-23207-00024  
Permit Reviewer: Melissa Groch

On July 11, 2006, the Office of Air Quality (OAQ) had a notice published in the Vidette Times, Valparaiso, Indiana, stating that Calumite Company, LLC, had applied for a Part 70 Operating Permit to operate a calumite plant, a process by which blast furnace and basic oxygen furnace slag are converted into calumite. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Written comments were received during this comment period from the Permittee. IDEM has addressed each one of these written comments in this document. In some instances, permit language has been added or deleted as a result of the comments.

Regarding the Technical Support Document (TSD), IDEM OAQ prefers that this document remain as it was during public notice. No changes have been made to the TSD as a result of this Addendum to the Technical Support Document (or ATSD).

On July 26 and August 8, 2006, the Permittee submitted the following written comments:

**Comment 1:** The source address is currently listed as 900 George Nelson Drive, Portage, Indiana 46368 on the cover page, in Sections A.1 and A.2, on the various attached forms, and in the Technical Support Document. This address is a satellite office building owned and occupied by the Edward C. Levy Company. The correct source address for Calumite Company, LLC is 915 Sun Drive, Portage, Indiana 46368. Please note that the source did not change location. The source address was simply listed incorrectly.

**Response 1:** This change has been made throughout the permit to each instance where the address is listed. Since IDEM, OAQ, prefers that the TSD remain as it was during public notice, no changes have been made to the TSD as a result of this Addendum to the Technical Support Document (or ATSD). Any corrections that need to be made to the TSD are addressed in this ATSD, which serves as the documentation of these changes.

**Comment 2:** Calumite does not contest or have any comments in regards to the conditions in Sections A, B, C, D.1 or D.2 of the subject permit. We do have comments on the emission calculations that were provided with the Technical Support Document (TSD). We would like this opportunity to provide up-to-date emission calculations which represent current operations since the transition of ownership.

In particular, we have concern about the amount of emissions that IDEM calculated for wind erosion. The amount seems extremely overstated and equals more than the process emissions and roadway emissions combined. This is not logical in this type of operation. Roadway emissions should be the largest source of emissions at this facility.

We have two concerns with the IDEM calculation for wind erosion (storage). First, the IDEM calculation contains an error. Using the same storage capacity data provided by IDEM, we calculate 41.87 tons particulate matter (PM) versus IDEM's calculation of 69.83 tons PM. This is a difference of 27.96 tons. Respectively, the PM-10 value used by IDEM is not correct. IDEM used a value of 1,800,000 tons. We do not know the origin of this value but the facility is not designed for stockpiling and can not physically accommodate this amount of material based on the limited size of the property. We also do not stockpile any of our final product, calumite. The facility can accommodate a maximum of 100,000 tons of stored raw material (blast furnace slag), at best. Most of our raw material is stockpiled at the steel mill (ISG Burns Harbor) where it is generated and shipped to us on an as-needed basis. Therefore, the total wind erosion potential emission estimate should be 2.33 tons PM. We have provided our calculations in the attachment and have also provided them to your office electronically.

We have included updated calculations for aggregate handling in the attachment. Typical moisture content for slag ranges between 0.25 and two percent. We believe it is appropriate to use the mean value of 0.92 percent moisture. This information is also published in AP-42 in Table 13.2.4-1. IDEM provided a value of 2.93 percent moisture which is very high for slag in this region.

We have also included updated calculations for the process units in the attachment. For IDEM's reference, we have included a process flow diagram for the facility. All calculations were completed based on current AP-42 values. A large majority of this process is housed inside a building containment with enclosures surrounding each unit. Since this is integral to the process, using the containment/capture efficiencies for uncontrolled emission calculations is appropriate. None of these process units are mobile and can not operate outside its respective containment or enclosure structure.

**Response 2:** Please see Appendix A of this ATSD for the updated calculations provided by the source. Minor formatting changes have been made to these calculations, and the emission factors are included at the bottom of page 3 of 4 (previously, they were submitted on page 5). The calculations for wind erosion (storage) do contain an error. The original result of 69.83 tons PM is incorrect. The correct result is 41.87 tons particulate matter (PM), as noted in the comment above.

With regards to the PM-10 value for the storage pile calculations, the value is 35% of PM and not the value used for the storage capacity. The storage capacity value of 1,800,000 tons is taken from the calculations performed for FESOP 127-5567-00024. That permit included the Finishing Plant, which may have been the reason for the high storage capacity. The requested maximum value of 100,000 tons of stored raw material (blast furnace slag), is acceptable to use as the storage capacity (see Appendix A, page 4 of 4). As a result, the total wind erosion potential emissions are now 2.33 tons PM as noted in the comment above, and 0.81 tons PM-10.

As requested, the mean value of 0.92 percent moisture for the aggregate handling is appropriate for the moisture content, as shown in AP-42, Table 13.2.4-1 (see Appendix A, page 4 of 4). Initially, a value of 2.93 percent moisture was provided because this was the percent used in aggregate handling calculations for other slag processing operations in Northwest Indiana.

Lastly, the option of using 90% as the control value for the aggregate storage operations is allowed (see Appendix A, pages 2 and 4 of 4). As stated in AP-42, 13.2.4.4, "Continuous chemical treating of material loaded onto piles, coupled with watering or treatment of roadways, can reduce total particulate emissions from aggregate storage operations by up to 90 percent." This percentage is now being used in the calculations in lieu of the natural mitigation equation from AP-42, page 13.2.2-7, that was used in the public notice draft operating permit.

\*\*\*\*\*

**Revision 1:** On August 7, 2006, a temporary emergency rule took effect which revoked the one-hour ozone standard in Indiana. The Indiana Air Pollution Control Board has approved a permanent rule revision to incorporate this change into 326 IAC 1-4-1. The permanent revision to 326 IAC 1-4-1 will take effect prior to the expiration of the emergency rule. As a result, several parts of the TSD section for the County Attainment Status are no longer necessary as shown by strikethrough below. Bolded language below is meant to provide further clarification:

Pollutant	Status
PM 2.5	Nonattainment
PM-10	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
<del>1-hour Ozone</del>	<del>Severe nonattainment</del>
<del>8-hour Ozone</del>	<del>Moderate nonattainment</del>
CO	Attainment
Lead	Attainment

(a) 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.

(1) ~~On January 26, 1996 in 40 CFR 52.777(i), the U.S. EPA granted a waiver of the requirements of Section 182(f) of the CAA for Lake and Porter Counties, including the lower NOx threshold for nonattainment new source review. Therefore, VOC emissions alone are considered when~~

~~evaluating the rule applicability relating to the 1-hour ozone standards. Porter County has been designated as severe nonattainment in Indiana for the 1-hour ozone standard. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability for the source section.~~

- (2) **Therefore,** VOC and NOx emissions are considered when evaluating the rule applicability relating to the 8-hour ozone standard. Porter County has been designated as moderate nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for nonattainment new source review **Emission Offset, 326 IAC 2-3.**

Additionally, this affects the Source Location Status listed under condition A.1 in the operating permit. This section now reads as:

Source Location Status:            Nonattainment for PM 2.5  
   Nonattainment for ~~1-hour and~~ the 8 hour ozone standards  
   Attainment for all other criteria pollutants

# 127-23207-00024 ATSD APPENDIX A

POTENTIAL-TO-EMIT FACILITY SUMMARY  
CONTROLLED AND UNCONTROLLED  
CALUMITE COMPANY, LLC.

Source	Uncontrolled PM Emissions (tpy)	Controlled PM Emissions (tpy)	Uncontrolled PM-10 Emissions (tpy)	Controlled PM-10 Emissions (tpy)
Storage Piles	6.76	0.68	2.91	0.29
Process	10.13	0.77	2.04	0.26
Roadways	39.74	3.97	10.59	1.06
<b>Totals</b>	<b>56.63</b>	<b>5.42</b>	<b>15.54</b>	<b>1.61</b>

# 127-23207-00024 ATSD APPENDIX A

**POTENTIAL-TO-EMIT FROM UNPAVED ROADWAYS  
CONTROLLED AND UNCONTROLLED  
CALUMITE COMPANY, LLC.  
AP-42 12.2.2 (12/03) UNPAVED ROADWAYS**

Maximum Annual Slag Throughput: 350400 tons per year (based on 8760 hours per year potential)

Vehicle	Estimated Maximum Throughput (tons/yr)	Tare Weight (tons)	Gross Weight (tons)	Product Weight (tons per round trip)	Round Trips/yr	Miles per round trip	VMT/yr
Customer Bulker Trucks	350,400	14	37	23	15,235	0.25	3,809
Slag Hauler Trucks	350,400	25	80	55	6,371	0.25	1,593
Bobcat (used for residual cleanup & mtce)	35,040	5	6	1	35,040	0.18	6,307
972G Loader	350,400	25	35	10	35,040	0.18	6,307

*Unpaved Roadways Continued*

Vehicle	Mean Weight (W) (tons)	PM Emission Factor <sup>2</sup> (lb/VMT)	PM10 Emission Factor <sup>2</sup> (lb/VMT)	VMT/yr	UNCONTROLLED		CONTROLLED*	
					PM Emissions (TPY)	PM10 Emissions (TPY)	PM Emissions (TPY)	PM10 Emissions (TPY)
Customer Bulker Trucks	26	4.98	1.33	3,809	9.48	2.53	0.95	0.25
Slag Hauler Trucks	53	6.89	1.84	1,593	5.49	1.46	0.55	0.15
Bobcat (used for cleanup & mtce)	6	2.50	0.67	6,307	7.87	2.10	0.79	0.21
972G Loader	30	5.36	1.43	6,307	16.89	4.50	1.69	0.45
					<b>39.74</b>	<b>10.59</b>	<b>3.97</b>	<b>1.06</b>

\*Based on a 90% control efficiency from the periodic application of water and/or other dust suppressants was applied.

2. Reference AP-42, 13.2.2, Version 12/03  
 $E = k((s/12)^a) ((W/3)^b) ((365-p)/365)$

Variable	PM10 Value	Units	Description
k	1.5	lb/VMT - Table 13.2.2-2	empirical constant
a	0.9	Table 13.2.2-2	empirical constant
b	0.45	Table 13.2.2-2	empirical constant
W	see above	tons	mean vehicle weight
s	6	% (Table 13.2.2-1)(iron/steel mills)	surface material silt content
p	135	Figure 13.2.2-1	mean number of days in a year with at least 0.01 inches of precipitation

Variable	PM Value	Units	Description
k	4.9	Table 13.2.2-2	empirical constant
a	0.7	Table 13.2.2-2	empirical constant
b	0.45	Table 13.2.2-2	empirical constant
W	see above	tons	mean vehicle weight
s	6	% (Table 13.2.2-1)(iron/steel mills)	surface material silt content
p	135	Figure 13.2.2-1	mean number of days in a year with at least 0.01 inches of precipitation

# 127-23207-00024 ATSD APPENDIX A

**POTENTIAL-TO-EMIT FROM PROCESS EMISSIONS  
CONTROLLED AND UNCONTROLLED  
CALUMITE COMPANY, LLC.  
AP-42 11.19.2 (8/04) CRUSHED STONE PROCESSING**

Maximum Annual Slag Throughput: 350400 tons per year (based on 8760 hours per year potential)

Unit	Uncontrolled PM Emissions (tpy)	**Controlled PM Emissions (tpy)		Uncontrolled PM-10 Emissions (tpy)	**Controlled PM-10 Emissions (tpy)	Containment/Capture Efficiency	Control Efficiency
<b>Material Transfers/Conveyors/Feeders/Loading/Unloading</b>							
Feeder Bin (6 Compartment)	0.0028	0.0028		0.0028	0.0028	none	none
Feed Conveyor 1	0.5256	0.02453		0.0081	0.0040	none	none
Feed Conveyor 2	0.5256	0.02453		0.0081	0.0040	none	none
Feed Conveyor 3	0.5256	0.02453		0.0081	0.0040	none	none
Recirc Conveyor	0.5256	0.02453		0.0081	0.0040	none	none
Feed Hopper Bin	0.5256	0.02453		0.0081	0.0040	none	none
Vibratory Feeder-Head End	0.0028	0.0028		0.0028	0.0028	none	none
Dryer Feed Conveyor	0.5256	0.02453		0.0081	0.0040	none	none
Mag/FE Bunker (dryer)	0.5256	0.02453		0.0081	0.0040	none	none
Hot Gas BH Screw conveyor 1 *	0.0005256	0.00000011		0.0000081	0.000000016	99.9%	99.98%
Hot Gas BH Screw conveyor 2 *	0.0005256	0.00000011		0.0000081	0.000000016	99.9%	99.98%
No. 1 Bucket Elev *	0.0005256	0.00000011		0.0000081	0.000000016	99.9%	99.98%
No. 2 Bucket Elev *	0.0005256	0.00000011		0.0000081	0.000000016	99.9%	99.98%
Vibratory Feeders (2) (tower) *	0.0000028	0.0000000056		0.0000028	0.0000000056	99.9%	99.98%
No.1 screw conveyor *	0.0005256	0.00000011		0.0000081	0.000000016	99.9%	99.98%
No.2 screw conveyor *	0.0005256	0.00000011		0.0000081	0.000000016	99.9%	99.98%
Mag/FE Bunker (tower) *	0.0005256	0.00000011		0.0000081	0.000000016	99.9%	99.98%
Calumite Rail Car & Truck Loadout (2) ***	0.5256	0.00000011		0.0080592	0.000000016	99.9%	99.98%
Product Dust Truck Loading Bin (Foseco) ***	0.5256	0.00000011		0.0080592	0.000000016	99.9%	99.98%
<b>Screening</b>							
Screen (head end)	4.38	0.385		1.524	0.130	none	none
Screens (2) (tower)*	0.00438	0.00000088		0.00152	0.00000030	99.9%	99.98%
Fines Screens (2) (tower)*	0.05256	0.000011		0.01261	0.0000025	99.9%	99.98%
<b>Crushing</b>							
Primary Crusher	0.9461	0.21		0.4205	0.095	none	none
Fines Crusher (cage mill)*	0.00683	0.000001		0.00263	0.00000053	99.9%	99.98%
<b>TOTALS</b>	<b>10.1295</b>	<b>0.7730</b>		<b>2.0397</b>	<b>0.2581</b>		

\* These units are contained within an a building with individual enclosure systems, therefore, capture efficiencies must be used to calculate uncontrolled emissions. These units are not mobile and the enclosures are an integral part of the process.

\*\* Actual facility capture efficiencies were used to calculate uncontrolled emissions where containment structures exist.

\*\*\* These units have retractable loading spout enclosures.

Containment includes the building and individual unit enclosure structures.

Control efficiencies are from manufacture estimates for each baghouse system.

Units with no asterisk are outdoors and operate with no containment or enclosure system.

**Emission Factors from AP-42 11.19.2 (8/03)**

Source	PM Uncontrolled	PM Controlled	PM-10 Uncontrolled	PM-10 Controlled
Tertiary Crushing (SCC 3-050-020-03)	0.0054	0.0012	0.0024	0.00054
Fines Crushing (SCC 3-05-020-05)	0.039	0.003	0.015	0.0012
Screening (SCC 3-05-020-02, 03)	0.025	0.0022	0.0087	0.00074
Fines Screening (SCC 3-05-020-21)	0.3	0.0036	0.072	0.0022
Conveyor Transfer Point (SCC 3-05-020-06)	0.003	0.00014	0.000046	0.000023
Truck Unloading (Feeders) Fragmented Stone (SCC 3-05-020-31)	ND	ND	0.000016	ND

# 127-23207-00024 ATSD APPENDIX A

**POTENTIAL-TO-EMIT FROM STORAGE PILES  
CONTROLLED AND UNCONTROLLED  
CALUMITE COMPANY, LLC.  
AP-42 13.2.4 (1/95) AGGREGATE HANDLING AND STORAGE PILES**

**Batch Loading and Unloading Operations from Storage Piles (Aggregate Handling)**

$$E = k * (0.0032) * [(U/5)^{1.3} / (M/2)^{1.4}] \text{ lbs/ton}$$

Factor	Value	Source	Description
E PM	0.02529857	Calculated	emission factor
E PM10	0.01196554	Calculated	emission factor
k PM	0.74	13.2.4, Pg 3	particle size multiplier (dimensionless)
k PM10	0.35		
U	13.4	internet	mean wind speed, (mph) [source=rredc.nrel.gov/wind/pubs/atlas/maps/chap1/2-06m.html]
M	0.92	Table 13.2.4-1	material moisture content (median value)

$$E_{PM} = 0.02529857 \text{ lb/ton}$$

$$E_{PM10} = 0.01196554 \text{ lb/ton}$$

350,400 tons per year maximum throughput, based on 8760 hours operation.

	Emissions (tpy)
<b>PM Uncontrolled</b>	4.43
<b>PM Controlled</b>	0.44
<b>PM10 Uncontrolled</b>	2.10
<b>PM10 Controlled</b>	0.21

**Wind Erosion from Storage Piles (Storage)**

$$E_f = 1.7 * (s/1.5) * (365-p) / 235 * (f/15)$$

$$= 3.47 \text{ lb/acre/day}$$

where s = 3 % silt content of material

p = 125 days of rain greater than or equal to 0.01 inches

f = 15 % of wind greater than or equal to 12 mph

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

where sc = 100,000 tons storage capacity

$$= 2.33 \text{ tons PM/yr Uncontrolled}$$

$$= 0.23 \text{ tons PM/yr Controlled}$$

$$= 0.81 \text{ tons PM-10/yr Uncontrolled (35% of PM)}$$

$$= 0.08 \text{ tons PM-10/yr Controlled}$$

This equation is from AP-42, Fourth Edition, Section 11.2.3 (5/83).

This section of AP-42 has been superseded with a revised version at Section 13.2.4.

The revised Section 13.2.4 does not offer wind erosion estimation equations.

90% control factor used

# Indiana Department of Environmental Management Office of Air Quality

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

### Source Background and Description

**Source Name:** Calumite Company, LLC- a contractor of ISG Burns Harbor, LLC  
**Source Location:** 900 George Nelson Drive, Portage, Indiana 46368  
**County:** Porter  
**SIC Code:** 3295  
**Operation Permit No.:** T127-23207-00024  
**Permit Reviewer:** Melissa Groch

The Office of Air Quality (OAQ) has reviewed a Part 70 operating permit application from Calumite Company, LLC, relating to a process by which blast furnace and basic oxygen furnace slag are converted into calumite.

### Source Definition

This calumite plant is operated by a contractor of an integrated steel mill:

- (a) ISG Burns Harbor, LLC (plant ID 127-00001), the primary operation, is located at U.S. Highway 12, Burns Harbor, Indiana; and
- (b) Calumite Company, LLC (plant ID 127-00024), the secondary operation, is located at 900 George Nelson Drive, Portage, Indiana.

IDEM has determined that ISG Burns Harbor, LLC and Calumite Company, LLC are under the common control of ISG Burns Harbor, LLC. These plants are considered one source due to contractual control. Therefore, the term "source" in the Part 70 documents refers to both ISG Burns Harbor, LLC, and Calumite Company, LLC as one source.

Separate Part 70 permits will be issued to ISG Burns Harbor, LLC (TV 127-6301-00001) and Calumite Company, LLC (TV 127-23207-00024) solely for administrative purposes.

### Permitted Emission Units and Pollution Control Equipment

One (1) calumite plant, constructed in 1980 and modified in 2000, with a maximum capacity of 40 tons per hour, consisting of the following equipment:

- (a) One (1) receiving and feed operation with fugitive emissions, consisting of:
  - (1) Six (6) feed bin hoppers, installed in 2000, with a maximum capacity of 160 tons per hour total.
  - (2) One (1) crusher, installed in 2000, with a maximum capacity of 160 tons per hour.
  - (3) Three (3) conveyors, installed in 2000, with a maximum capacity of 160 tons per hour each.
  - (4) One (1) screen, installed in 2000, with a maximum capacity of 160 tons per hour.
  - (5) One (1) recirculating conveyor, installed in 2000, with a maximum capacity of 60 tons per hour.
  - (6) One (1) hopper, installed in 1980, with a maximum capacity of 160 tons per hour.
  - (7) One (1) vibratory feeder, installed in 1980, with a maximum capacity of 75 tons per hour.
  - (8) One (1) dryer feed conveyor, installed in 1980, with a maximum capacity of 75 tons per hour.
  - (9) One (1) magnet and FE bunker, installed in 1980, servicing the slag dryer feed system.
- (b) One (1) slag dryer, identified as 207, installed in 1980 and modified in 1994, with a maximum capacity of 40 tons per hour, equipped with an oil-fired burner with a maximum heat input capacity of 52.2 MMBtu per hour when combusting No.2 fuel oil equivalent and 49.3 MMBtu per hour when combusting No. 4 fuel oil equivalent, with particulate emissions controlled by the hot gas baghouse identified as 237,

exhausting through stack No.1.

- (c) One (1) calumite screening tower process consisting of:
- (1) One (1) No.1 bucket elevator, constructed in 2000, with a maximum capacity of 300 tons per hour, with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (2) One (1) No.2 bucket elevator, constructed in 1980, with a maximum capacity of 110 tons per hour, with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (3) Two (2) screens, constructed in 2000, with a maximum capacity of 88.5 tons per hour each, with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (4) Two (2) Midwestern (fines) screens, installed in 2001, with a maximum capacity of 6 tons per hour each, with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (5) Two (2) vibratory feeders, installed in 2000, with a maximum capacity of 32.8 tons per hour each with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (6) Two (2) rare earth magnets and one FE bunker with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (7) One (1) Stedman crusher (cage mill), constructed in 1980, with a maximum capacity of 111 tons per hour, with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (8) One (1) No.1 screw conveyor, constructed in 1980, with a maximum capacity of 106 tons per hour, with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (9) One (1) No.2 screw conveyor, constructed in 1980, with a maximum capacity of 42 tons per hour, with particulate emissions controlled by the loadout baghouse identified as 235, exhausting through Stack No.5.
  - (10) One (1) railcar loadout bin with a maximum capacity of 42 tons per hour, with particulate emissions controlled by the loadout baghouse identified as 235, exhausting through Stack No.5.
  - (11) One (1) truck loadout bin with a maximum holding capacity of 42 tons per hour, with particulate emissions controlled by the loadout baghouse identified as 235, exhausting through Stack No.5.
  - (12) Two (2) horizontal screw conveyors servicing the hot gas baghouse.
  - (13) One (1) product dust loadout bin servicing the hot gas baghouse and the fugitive dust baghouse, with particulate emissions controlled by the fugitive dust baghouse identified as 234, exhausting through Stack No.2.
  - (14) One (1) abrasives bin and feeder with a maximum holding capacity of 170 tons.

### **Unpermitted Emission Units and Pollution Control Equipment**

There are no known unpermitted facilities operating at this source during this review process.

### **Insignificant Activities**

Calumite Company, LLC consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) The following VOC and HAP storage containers:
  - (A) Storage tanks with capacity less than or equal to 1000 gallons and annual throughputs equal to or less than 12,000 gallons.
  - (B) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (b) Degreasing operations that do not exceed one hundred forty-five (145) gallons per twelve (12) months, except if subject to 326 IAC 20-6.
- (c) Cleaners and solvents characterized as:

- (aa) having a vapor pressure equal to or less than two (2.0) kilo Pascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pound per square inch) measured at thirty-eight (38) degrees Centigrade (one hundred (100) degrees Fahrenheit); or
- (bb) having a vapor pressure equal to or less than seven-tenths (0.7) kilo Pascal (five (5) millimeters of mercury or one-tenth (0.1) pound per square inch) measured at twenty (20) degrees Centigrade (sixty-eight (68) degrees Fahrenheit); the use of which, for all cleaners and solvents combined, does not exceed one hundred forty-five (145) gallons per twelve (12) months.
- (d) Stock piles.
- (e) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

### Existing Approvals

Previous to March 2006, Calumite Company, LLC has been operating as The Levy Company and under previous approvals issued to The Levy Company including, but not limited to, the following:

- (a) Registration 127-3799-00024, issued July 11, 1994;
- (b) FESOP 127-5567-00024, issued December 12, 1996;
- (c) First Administrative Amendment 127-9254-00024, issued January 7, 1998;
- (d) Second Administrative Amendment 127-11252-00024, issued September 9, 1999;
- (e) First Significant Permit Revision 127-12042-00024, issued July 17, 2000;
- (f) Third Administrative Amendment 127-12638-00024, issued October 13, 2000; and
- (g) Administrative Amendment 127-19337-00024, issued August 26, 2004.

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

- (a) FESOP 127-5567-00024, issued on December 12, 1996:

#### Sections D.1 and D.2

All conditions.

Reason Changed: General changes have been made to the operating permit, regarding Sections D.1 and D.2. The Calumite Plant at this site is now under a different company and has transitioned into the Part 70 operating permit program (T127-23207-00024), based on the determination that it is to be considered as one source with ISG Burns Harbor, LLC for the purposes of the Part 70 operating permit program. The Finishing Plant facilities at this site have been shut down and dismantled. As a result, this equipment has not been carried over into the Part 70 operating permit.

#### Condition D.1.4

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 49.3 million Btu per hour burner for the slag dryer shall be limited to 0.5 pounds per million Btu heat input or a sulfur content of less than or equal to 0.49 percent when using fuel oils #2 and #4. Therefore, the requirements of 326 IAC 2-7 will not apply.

Reason Changed: The last sentence of condition D.1.4 was deleted because this source has been combined into another Part 70 source as mentioned previously. This condition has been updated to reflect current rule language, and a limit has been placed on fuel oil usage to restrict the SO<sub>2</sub> emissions so that PSD is rendered not applicable.

#### Condition D.2.1

The Finishing Plant total throughput shall not exceed 305,000 tons per month, based on a fixed monthly limit. Therefore, the requirements of 326 IAC 2-7 will not apply.

Reason Changed: This throughput limit is no longer necessary because the Finishing Plant has been shut down and dismantled.

- (b) First Significant Permit Revision 127-12042-00024, issued on July 17, 2000;

Condition D.1.1

Pursuant to 326 IAC 6-3 (Process Operations) the particulate matter emissions from the slag dryer shall not exceed 47.1 lbs per hour.

Reason changed: The requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) were inadvertently omitted from condition D.1.1 when the permit was revised for the related new equipment. Therefore, this condition has been revised to include all previously omitted processes.

Condition D.1.2

(a) Pursuant to 326 IAC 2-8-4, PM-10 emissions from the aggregate mixing and drying operations shall not exceed 10.36 pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

(b) Pursuant to 326 IAC 2-8-4, PM-10 emissions from the one (1) crusher shall not exceed 0.09 pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

(c) Pursuant to 326 IAC 2-8-4, PM-10 emissions from the one (1) screw conveyor and one (1) bucket elevator shall not exceed 0.48 pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

(d) Pursuant to 326 IAC 2-8-4, PM-10 emissions from the two (2) screens shall not exceed 0.15 pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

Condition D.1.3

The Calumite plant total throughput shall not exceed 28,229 tons per 12 consecutive month period, rolled on a monthly basis.

Reason Changed: Conditions D.1.2 and D.1.3 are not needed in this Part 70 operating permit because this source has been combined into another Part 70 source as mentioned previously, and therefore, limits to satisfy 326 IAC 2-8-4 are not necessary.

## History

Finished product from The Levy Company site at ISG Burns Harbor is sent to the Calumite Company, LLC. This site is in proximity to the Levy Company site at ISG Burns Harbor, LLC. The Calumite Company, LLC, only processes material trucked over from The Levy Company at ISG Burns Harbor. This material is trucked by way of a private road. Because of these facts, Calumite Company, LLC (127-00024) has been combined with ISG Burns Harbor, LLC (127-00001).

## Enforcement Issue

There are no enforcement actions pending.

## Recommendation

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

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

An application for the purposes of this review was received on December 20, 2001.

### Emission Calculations

Calculations for the calumite process were originally performed by Levy Company and previously included in the Part 70 public notice draft for T127-7656-00026. These calculations have been updated for the purposes of this Part 70 operating permit review, and since this plant is under new ownership. They are found in Appendix A, pages 1 to 4, of this TSD.

### Potential To Emit of Entire Source

Pursuant to 326 IAC 2-7-1(29), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	greater than 100
PM-10	greater than 100
SO <sub>2</sub>	greater than 100
VOC	greater than 25
CO	greater than 100
NO <sub>x</sub>	greater than 100
Total HAPs	greater than 25

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

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM-10, SO<sub>2</sub>, CO, and NO<sub>x</sub> are equal to or greater than 100 tons per year, and the potential to emit (as defined in 326 IAC 2-7-1(29)) of VOC is equal to or greater than 25 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 one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

### Actual Emissions – Calumite Company, LLC

The following table shows the actual reported emissions from the calumite process. This information reflects the 2002 OAQ emission data submitted by The Levy Company, Inc. The most recent data reported is from 2002.

Pollutant	Calumite Plant
PM	-
PM-10	0
SO <sub>2</sub>	5
VOC	0
CO	1
NO <sub>x</sub>	4
HAP (specify)	-

## County Attainment Status

The source is located in Porter County.

Pollutant	Status
PM 2.5	Nonattainment
PM-10	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
1-hour Ozone	Severe nonattainment
8-hour Ozone	Moderate nonattainment
CO	Attainment
Lead	Attainment

- (a) 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.
- (1) On January 26, 1996 in 40 CFR 52.777(i), the U.S. EPA granted a waiver of the requirements of Section 182(f) of the CAA for Lake and Porter Counties, including the lower NOx threshold for nonattainment new source review. Therefore, VOC emissions alone are considered when evaluating the rule applicability relating to the 1-hour ozone standards. Porter County has been designated as severe nonattainment in Indiana for the 1-hour ozone standard. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability for the source section.
- (2) VOC and NOx emissions are considered when evaluating the rule applicability relating to the 8-hour ozone standard. Porter County has been designated as moderate nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for nonattainment new source review.
- (b) Porter County has been classified as moderate nonattainment in Indiana for the 8-hour ozone standard. Therefore, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability for the source section.
- (c) U.S. EPA, in Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Porter County as nonattainment for PM 2.5. On March 7, 2005, the Indiana Attorney General's Office, on behalf of IDEM, filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate PM10 emissions as surrogate for PM 2.5 emissions pursuant to the Nonattainment New Source Review requirements. See the State Rule Applicability - Entire Source section.
- (d) Fugitive Emissions  
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

## Part 70 Permit Conditions

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

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

## Federal Rule Applicability

- (a) The two fuel oil storage tanks (each less than 10,000 gallons) each have capacities less than 75 cubic meters (19,812.90 gallons), therefore, the New Source Performance Standards for Volatile Organic Liquid Storage Vessels (40 CFR 60.110b - 117b, Subpart Kb) are not included in this operating permit.
- (b) No other New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) are included in this operating permit, as noted below:
  - (1) 40 CFR Part 60, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants) is not included in this permit because the original ore is expanded and vitrified in a furnace which alters the physical and chemical makeup of the ore, producing a slag by-product that does not meet the definition of a nonmetallic mineral in 40 CFR Subpart 60.671.
  - (2) 40 CFR Part 60, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) is not included in this permit because the operations are not producing metallic mineral concentrates from ore. Also, the slag crushing and/or screening operations are not performed in a mine or pit.
  - (3) 40 CFR Part 60, Subpart UUU (Standards of Performance for Calciners and Dryers in Mineral Industries) is not included in this permit because the slag dryer, identified as 207, does not meet the definition of a mineral processing plant, pursuant to 40 CFR 60.731, and the source does not process or produce any minerals in amounts equaling or exceeding 50 percent of those minerals listed in this rule.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 40 CFR Part 61 and 40 CFR Part 63) included in this operating permit.

40 CFR Part 63, Subpart T (National Emission Standards for Halogenated Solvent Cleaning) is not included in this permit because the source does not use the regulated halogenated solvents in the degreasing operation that includes two (2) cold cleaning parts wash tanks with capacities each less than 145 gallons, as an insignificant activity.
- (d) The owner or operator of Calumite Company, LLC shall submit a CAM (Compliance Assurance Monitoring) plan as part of their Part 70 Operating Permit renewal application. Prior to the renewal, if the owner or operator submits an application for a significant permit revision, they shall also submit a CAM plan with respect to those pollutant-specific emissions units for which the proposed permit revision is applicable.

## State Rule Applicability - Entire Source

### 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset)

The combined usage of No.2 fuel oil with a sulfur content of 0.5% and No.2 fuel oil equivalent in the slag dryer shall be limited to 1,126,761 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month, so that source-wide SO<sub>2</sub> emissions are restricted to below 40 tons per year.

For purposes of determining compliance (See calculations page 4 of 4, Appendix A), every 1,000 gallons of No.4 fuel oil burned in the slag dryer burner shall be equivalent to 1,074 gallons of No.2 fuel oil based on SO<sub>2</sub> emissions and a maximum No.4 fuel oil sulfur content of 0.5% such that the total gallons of No.2 fuel oil and No.2 fuel oil equivalent input does not exceed the limit specified.

Compliance with this usage limit restricts the SO<sub>2</sub> emissions from the slag dryer fuel oil combustion to less than 40 tons per year, and renders 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset) not applicable..

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

The operation of this calumite plant will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs, therefore, 326 IAC 2-4.1 is not included in this Part 70 operating permit.

### 326 IAC 2-6 (Emission Reporting)

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:

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

Since the Calumite Company, LLC, is considered one source with ISG Burns Harbor, LLC, it is required to submit an annual emission statement for the actual emissions by July 1.

#### 326 IAC 5-1 (Opacity Limitations)

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

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

#### 326 IAC 6-4 (Fugitive Dust Emissions)

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

#### 326 IAC 8-1-6 (General Reduction Requirements)

This rule applies to facilities located anywhere in the state that were constructed on or after January 1, 1980, and which have potential volatile organic compound (VOC) emissions of 25 tons per year or more and are not otherwise regulated by other provisions of Article 8. None of the facilities at this source have a PTE VOC at 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 do not apply to this source.

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

This rule applies to VOC containing storage facilities constructed after January 1, 1980, which are at sources located in specified counties. The source is located in a specified county, Porter County. However, the two fuel oil storage tanks, identified as an insignificant activity (each less than 10,000 gallons), are not subject to this rule since their individual capacities are below the applicable rule threshold capacity of thirty-nine thousand (39,000) gallons.

#### 326 IAC 8-6 (Organic Solvent Emission Limitations)

This rule applies to sources commencing operation after October 7, 1974 and prior to January 1, 1980, located anywhere in the state, with potential solvent VOC emissions of 100 tons per year or more, and not regulated by any other provision of Article 8. This source has potential VOC emissions well below 100 tons per year. Therefore, the requirements of 326 IAC 8-6 are not applicable.

#### 326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark and Floyd Counties)

The requirements of this rule apply to stationary sources located in Lake, Porter, Clark and Floyd Counties that emit or have the potential to emit VOCs at levels equal to or greater than 25 tons per year in Lake and Porter Counties; 100 tons per year in Clark and Floyd Counties; and to any coating facility that emits or has the potential to emit 10 tons per year or greater in Lake, Porter, Clark or Floyd County. The source is located in Porter County. However, this rule is not applicable of this source since its PTE VOC is less than 25 tons per year and the source does not have surface coating facilities.

#### 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

Pursuant to 326 IAC 8-9-1, on and after October 1, 1995 stationary vessels used to store volatile organic liquids (VOL) must comply with the requirement of the rule if located in Clark, Floyd, Lake or Porter Counties. The source is located in Porter County and the rule is applicable to this source for the two (2) fuel oil storage tanks identified as insignificant activities (each less than 10,000 gallons). Since these vessels have individual storage

capacities of less than 39,000 gallons, only the record keeping and reporting requirements of 326 IAC 8-9-6 apply. Pursuant to 326 IAC 8-9-1(b), the source shall be exempt from all provisions of the rule, except that the source shall comply with the following record keeping and reporting requirements:

- (a) Maintain a record and submit to the department a report containing the following information for each vessel:
  - (1) The vessel identification number.
  - (2) The vessel dimensions.
  - (3) The vessel capacity.
- (b) All records required by (a) of this condition shall be maintained for the life of the affected vessel.

### State Rule Applicability- Individual Facilities

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the calumite process shall not exceed 42.5 pounds per hour when operating at a process weight rate of 40 tons per hour. The pounds per hour limitation was calculated with the following equation:

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

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

#### Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations) the SO<sub>2</sub> emissions from the oil-fired slag dryer shall not exceed five tenths (0.5) pound per MMBtu heat input when combusting No.2 or No.4 fuel oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average.

Since the SO<sub>2</sub> potential emission rate of 0.30 lb/MMBtu (15.9 lb/hr ÷ 52.2 MMBtu/hr) from the slag dryer when combusting No.2 fuel oil, is less than the limit of 0.5 lb/MMBtu, the dryer is considered in compliance with 326 IAC 7-1.1-2 when combusting No.2 fuel oil.

Since the SO<sub>2</sub> potential emission rate of 0.32 lb/MMBtu (15.8 lb/hr ÷ 49.3 MMBtu/hr) from the slag dryer when combusting No.4 fuel oil, is less than the limit of 0.5 lb/MMBtu, the dryer is considered in compliance with 326 IAC 7-1.1-2 when combusting No.4 fuel oil.

See the State Rule Applicability - Entire Source Section regarding SO<sub>2</sub> limits and 326 IAC 2-2 (Prevention of Significant Deterioration).

### Insignificant Activities with Applicable Requirements

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

The equipment related to manufacturing activities not resulting in the emission of HAPs (brazing equipment, cutting torches, soldering equipment, welding equipment) shall comply with the following:

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.

#### 326 IAC 8-3 (Volatile Organic Compounds (VOC))

Pursuant to 326 IAC 8-3-1(b)(2) and (c) (Applicability), the degreasing operations at Levy Company, Inc., shall comply with sections 5 through 7, and 8 of this rule, because they exist as of July 1, 1990, are located in Porter County, and use organic solvent.

The degreasing operation is cold cleaner and not open top or conveyORIZED. Therefore, only sections 5 and 8 of this rule are included in this operating permit.

### 326 IAC 8-3 (Volatile Organic Compounds (VOC))

Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs, the Permittee shall ensure that the following requirements are met:

- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
  - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
  - (B) The solvent is agitated; or
  - (C) The solvent is heated.
- (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
- (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
  - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
  - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
  - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:

- (1) Close the cover whenever articles are not being handled in the degreaser.
- (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
- (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

### 326 IAC 8-3 (Volatile Organic Compounds (VOC))

Pursuant to 326 IAC 8-3-8 (Material requirements for cold cleaning degreasers), the users, providers, and manufacturers of solvents for use in cold cleaning degreasers in Porter County, except for solvents intended to be used to clean electronic components shall do the following:

- (a) On and after May 1, 2001, no person shall Operate a cold cleaning degreaser with a solvent vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

- (b) On and after November 1, 1999, all persons subject to the requirements of 326 IAC 8-3-8(c)(1)(B) and (c)(2)(B) shall maintain each of the following records for each purchase:
  - (1) The name and address of the solvent supplier.
  - (2) The date of purchase.
  - (3) The type of solvent.
  - (4) The volume of each unit of solvent.
  - (5) The total volume of the solvent.
  - (6) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
- (c) All records required by 326 IAC 8-3-8(d) shall be retained on-site for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.

#### 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

Pursuant to 326 IAC 8-9-1(b), stationary vessels with a capacity of less than thirty-nine thousand (39,000) gallons (two fuel oil tanks) are subject to the reporting and record keeping provisions of section 6(a) and 6(b) of this rule and are exempt from all other provisions of this rule.

#### Testing Requirements

No testing of the emissions units at the Calumite Company, LLC is required at this time.

#### Compliance Requirements

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

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also 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 the operations are as follows:

- (a) For all processes, visible emission notations of emission units shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. 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.
- (b) The Permittee shall record the pressure drop across each baghouse used in conjunction with the slag

dryer, screening tower, and the loadout processes, at least once per day when the associated process is in operation. When for any one reading, the pressure drop across the baghouse or the three (3) dust collectors is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C-Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, and shall be calibrated in accordance with the manufacturer's specifications. The specifications shall be available on site with the Preventive Maintenance Plan.

- (c) In the event that bag failure has been observed 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 slag dryer or screening tower processes. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

## **Conclusion**

The operation of this proposed Part 70 permit shall be subject to the conditions of the attached proposed Part 70 Operating Permit No. T127-23207-00024.

**Appendix A: Emission Calculations  
PM/PM-10 Calculations**

**Company Name:** Calumite Company, LLC  
**Address City IN Zip:** 900 George Nelson Drive, Portage IN 46368  
**Permit No.** 127-23207-00024  
**Reviewer:** Melissa Groch  
**Date:** June 2006

**\*\*PM Emissions Before Controls\*\***

Storage		** see page 2 **		69.83 tons/yr	AP-42 Ch.11.2.3 (Pre 1985)
Unpaved Roads		** see page 2 **		34.51 tons/yr	AP-42 Ch. 13.2.2 (12/03)
Loading & Unloading	40 ton/hr x	0.0034 lb/ton	/ 2000 lb/ton x 8760 hr/yr =	0.60 tons/yr	AP-42 Ch.13.2.4 (12/03)
Crushing (primary)	40 ton/hr x	0.0007 lb/ton	/ 2000 lb/ton x 8760 hr/yr =	0.12 tons/yr	AP-42 Ch.11.19.2 (8/04)
Crushing (secondary)	40 ton/hr x	0.00504 lb/ton	/ 2000 lb/ton x 8760 hr/yr =	0.88 tons/yr	*AP-42 Ch.11.19.2 (8/04)
Screening	40 ton/hr x	0.0315 lb/ton	/ 2000 lb/ton x 8760 hr/yr =	5.52 tons/yr	AP-42 Ch.11.19.2 (8/04)
Conveying	40 ton/hr x	0.00294 lb/ton	/ 2000 lb/ton x 8760 hr/yr =	0.52 tons/yr	AP-42 Ch.11.19.2 (8/04)

**Total PM emissions before controls: 111.98 tons/yr**

\* based on Fire ver.6.22 EF for PM-10 of 0.15 lb/ton of raw material

**\*\*PM-10 Emissions Before Controls\*\***

Storage		** see page 2 **		24.44 tons/yr	AP-42 Ch.11.2.3 (Pre 1985)
Unpaved Roads		** see page 2 **		9.20 tons/yr	AP-42 Ch. 13.2.2 (12/03)
Loading/Unloading	40 tons/hr x	0.0016 lb/ton	/ 2000 lb/ton x 8760 hr/yr =	0.28 tons/yr	AP-42 Ch.11.19.2 (8/04)
Crushing (primary)	40 tons/hr x	0.0007 lb/ton	/ 2000 lb/ton x 8760 hr/yr =	0.12 tons/yr	AP-42 Ch.11.19.2 (8/04)
Crushing (secondary) <sup>1</sup>	40 tons/hr x	0.0024 lb/ton	/ 2000 lb/ton x 8760 hr/yr =	0.42 tons/yr	AP-42 Ch.11.19.2 (8/04)
Screening <sup>1</sup>	40 tons/hr x	0.015 lb/ton	/ 2000 lb/ton x 8760 hr/yr =	2.63 tons/yr	AP-42 Ch.11.19.2 (8/04)
Conveyor Transfer	40 tons/hr x	0.0014 lb/ton	/ 2000 lb/ton x 8760 hr/yr =	0.25 tons/yr	AP-42 Ch.11.19.2 (8/04)

**Total PM-10 emissions before controls: 37.34 tons/yr**

See AP-42 (8/04) Table 11.19.2-2, notes c and d before using these factors (PM10 factors differ from those listed above).

<sup>1</sup>PM10 emission factors are calculated by dividing the TSP emission factors by 2.1 (approximately 47.5% of the TSP factors).

**\*\*PM/PM-10 Emissions After Controls\*\***

			<b>PM</b>	<b>PM-10</b>	
Storage	10%	emitted after controls =	6.98 tons/yr	2.44 tons/yr	fugitives
Unpaved Roads	50%	emitted after controls =	5.08 tons/yr	1.35 tons/yr	fugitives
Loading & Unloading	100%	emitted after controls =	0.60 tons/yr	0.28 tons/yr	fugitives
Crushing (primary)	10%	emitted after controls =	0.01 tons/yr	0.01 tons/yr	nonfugitives
Crushing (secondary)	10%	emitted after controls =	0.09 tons/yr	0.04 tons/yr	nonfugitives
Screening	10%	emitted after controls =	0.55 tons/yr	0.26 tons/yr	nonfugitives
Conveying	10%	emitted after controls =	0.05 tons/yr	0.02 tons/yr	nonfugitives
<b>Total emissions after controls:</b>			<b>13.36 tons/yr</b>	<b>4.42 tons/yr</b>	
Total fugitive emissions:			12.66 tons/yr	4.08 tons/yr	
Total nonfugitive emissions:			0.70 tons/yr	0.34 tons/yr	

**\*\*PM/PM-10 SUMMARY\*\***

	before controls	after controls
<b>*PM</b>	<b>122.06 tons/yr</b>	<b>17.05 tons/yr</b>
<b>PM-10</b>	<b>37.34 tons/yr</b>	<b>4.42 tons/yr</b>

Emissions after controls of less than 25 tpy PM (including fugitives), and after controls less than 15 tpy PM-10 (including fugitives) show that the calumite process does not need limits to remain minor under 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset).

\*also includes the worst case PM from No.4 fuel oil combustion.

**Appendix A: Emission Calculations**  
**Storage, Unpaved Roads, and Aggregate Handling**

**Company Name:** Calumite Company, LLC  
**Address City IN Zip:** 900 George Nelson Drive, Portage IN 46368  
**Permit No.** 127-23207-00024  
**Reviewer:** Melissa Groch  
**Date:** June 2006

**\*\* storage \*\***

Storage emissions, which result from wind erosion, are determined by the following calculations (AP-42 Ch.11.2.3 (Pre 1985)):

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

$$= 3.47 \text{ lb/acre/day}$$

where s = 3 % silt content of material  
p = 125 days of rain greater than or equal to 0.01 inches  
f = 15 % of wind greater than or equal to 12 mph

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

$$= \boxed{69.83 \text{ tons/yr PM}} \quad \text{and} \quad \boxed{24.44 \text{ tons/yr PM-10}}$$

where sc = 1,800,000 tons storage capacity and PM-10 is 35% of PM

**\*\* unpaved roads \*\***

The following calculations determine the amount of emissions created by unpaved roads, based on 8760 hrs. of use and AP-42, Ch 13.2.2, pg.4, formula 1(a) (12/03). The method below considers natural mitigation due to precipitation.

$$3 \text{ trip/hr} \times 0.34 \text{ mile/trip} \times 8760 \text{ hr/yr} = 8935 \text{ miles/year}$$

$E = k \cdot [(s/12)^a] \cdot [(W/3)^b]$	= 2.06 lb/VMT	<u>Natural Mitigation</u>
where E = size specific emission factor (lb/VMT)		$E_{ext} = E \cdot [(365-P)/365]$
k = 1.5 lb/VMT (PM-10 const.) (4.9 for PM-30 or TSP)		where Eext = annual size-specific emission factor extrapolated for natural mitigation, lb/VMT
a = 0.9 constant for PM-10 (0.7 for PM-30 or TSP)		
b = 0.45 constant for PM-2.5, PM-10, and PM-30 or TSP		
s = 6 mean % silt content of unpaved roads		E = size specific Ef (lb/VMT)
W = 24 mean vehicle weight (tons)		P = 125 # days/yr with at least 0.254 mm (0.01 in) precipitation

$\frac{2.06 \text{ lb/VMT} \times 8935.2 \text{ mi/yr}}{2000 \text{ lb/ton}}$	before natural mitigation	$\boxed{9.20 \text{ tons/yr PM-10}}$	$\boxed{1.35 \text{ tons/yr PM-10}}$
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$\frac{7.72 \text{ lb/VMT} \times 8935.2 \text{ mi/yr}}{2000 \text{ lb/ton}}$	before natural mitigation	$\boxed{34.51 \text{ tons/yr PM}}$	$\boxed{5.08 \text{ tons/yr PM}}$
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**\*\* aggregate handling \*\***

The following calculations determine the amount of emissions created by truck loading and unloading of aggregate, based on 8760 hours of use and AP-42, Ch 13.2.4 (1/95).

$E_f = k \cdot (0.0032) \cdot (U/5)^{1.3} \cdot (M/2)^{1.4}$	$E_f = k \cdot (0.0032) \cdot (U/5)^{1.3} \cdot (M/2)^{1.4}$
= $\boxed{0.0016 \text{ lb/ton PM-10}}$	= $\boxed{0.0034 \text{ lb/ton PM}}$
where k = 0.35 (particle size multiplier <10um)	0.74 (particle size multiplier)
U = 10 mile/hr mean wind speed	
M = 2.93 % material moisture content	

**Appendix A: Emissions Calculations**  
**Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)**  
**No.2 Fuel Oil**

**Company Name:** Calumite Company, LLC  
**Address City IN Zip:** 900 George Nelson Drive, Portage IN 46368  
**Permit No.** 127-23207-00024  
**Reviewer:** Melissa Groch  
**Date:** June 2006

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/yr	S = Weight % Sulfur
52.2	3266.2	0.5

	Pollutant				
Emission Factor in lb/kgal	PM* 2.0	SO2 71 (142.0S)	NOx 20.0	VOC 0.34	CO 5.0
Potential Emission in tons/yr	3.3	116.0	32.7	0.6	8.2

**HAPs Emissions**

	HAPs - Metals				
Emission Factor in lb/mmBtu	Arsenic 4.0E-06	Beryllium 3.0E-06	Cadmium 3.0E-06	Chromium 3.0E-06	Lead 9.0E-06
Potential Emission in tons/yr	9.15E-04	6.86E-04	6.86E-04	6.86E-04	2.06E-03

	HAPs - Metals (continued)			
Emission Factor in lb/mmBtu	Mercury 3.0E-06	Manganese 6.0E-06	Nickel 3.0E-06	Selenium 1.5E-05
Potential Emission in tons/yr	6.86E-04	1.37E-03	6.86E-04	3.43E-03

**Methodology**

1 gallon of No.2 Fuel Oil has a heating value of 140,000 Btu  
Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MMBtu  
Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, 1.3-3 and 1.3-10 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)  
\*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.  
Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton  
No data was available in AP-42 for organic HAPs.  
Potential Emissions (tons/year) = Throughput (mmBtu/hr)\*Emission Factor (lb/mmBtu)\*8,760 hrs/yr / 2,000 lb/ton

**Appendix A: Emissions Calculations**  
**Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)**  
**No.4 Fuel Oil**

**Company Name:** Calumite Company, LLC  
**Address City IN Zip:** 900 George Nelson Drive, Portage IN 46368  
**Permit No.** 127-23207-00024  
**Reviewer:** Melissa Groch  
**Date:** June 2006

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur	Worst Case PM under SO2 limit: after control
49.3	2879.12	0.5	3.7

Emission Factor in lb/kgal	Pollutant				
	PM*	SO2 (150.0S)	NOx	VOC	CO
Potential Emission in tons/yr	7.0	75	20.0	0.34	5.0
	10.1	108.0	28.8	0.5	7.2

**Methodology**

1 gallon of No. 4 Fuel Oil has a heating value of 150,000 Btu  
 Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MMBtu  
 Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)

\*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.

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

No data was available in AP-42 for organic HAPs.

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**SO2 Limit**

The potential emissions of SO2 for either fuel oil is over 40 tpy, so the source must take a limit.

**Fuel Oil Usage Limitations**

No.2	<u>40 tons SO2/yr limited</u>	*	<u>3266.23 Kgals/yr =</u>	Limited
	116.0 tons SO2/yr potential		year potential	1126.761 Kgals/yr
No.4	<u>40 tons SO2/yr limited</u>	*	<u>3266.23 Kgals/yr =</u>	
	108.0 tons SO2/yr potential		year potential	1210.084 Kgals/yr

**Fuel equivalency limit for No.4 fuel oil based on SO2 emissions from No.2 fuel oil**

$$\frac{116.0 \text{ No.2 potential emissions (ton/yr)}}{3266.23 \text{ No.2 potential usage (kgal/yr)}} \div \frac{108.0 \text{ No.4 potential emissions (ton/yr)}}{3266.23 \text{ No.4 potential usage (kgal/yr)}} = 1.074 \text{ Kgal No.2 fuel oil burned / Kgal No.4 fuel oil burned}$$