



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

TO: Interested Parties / Applicant

DATE: June 17, 2009

RE: Uminin Corporation / 029-27310-00022

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

## Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, 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 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. 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.

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

Enclosures  
FNPER.dot12/03/07



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Cynthia Jamieson  
Unimin Corporation  
c/o 137 Franklin Street  
Aurora, IN 470001

June 17, 2009

Re: 029-27310-00022  
First Significant Revision to  
F029-15387-00022

Dear Ms. Jamieson:

Unimin Corporation was issued a Federally Enforceable State Operating Permit (FESOP) No. F029-15387-00022 on October 9, 2007 for a stationary olivine processing facility located at 137 Franklin Street, Aurora, Indiana 47001. On December 30, 2008, the Office of Air Quality (OAQ) received an application from the source requesting to revise their PM and PM10 lb/hr emission rates from baghouses DC-01 through DC-06. The attached Technical Support Document (TSD) provides additional explanation of the changes to the permit. Pursuant to the provisions of 326 IAC 2-8-11.1, these changes to the permit are required to be reviewed in accordance with the Significant Permit Revision (SPR) procedures of 326 IAC 2-8-11.1(g)(2). Pursuant to the provisions of 326 IAC 2-8-11.1, a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document (TSD).

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Attached please find the entire revised permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Jason R. Krawczyk, of my staff, at 317-232-8427 or 1-800-451-6027, and ask for extension 2-8427.

Sincerely,

Iryn Callung, Section Chief  
Permits Branch  
Office of Air Quality

Attachments: Technical Support Document and revised permit

IC/JRK

cc: File - Dearborn County  
Dearborn County Health Department  
U.S. EPA, Region V  
Air Compliance Section  
Compliance Data Section  
Technical Support and Modeling  
Permits Administrative and Development  
Billing, Licensing and Training Section



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## Federally Enforceable State Operating Permit OFFICE OF AIR QUALITY

**Unimin Corporation  
137 Franklin Street  
Aurora, Indiana 47001**

(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. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

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

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

|   |  |
|---|--|
| Operation Permit No.: F029-15387-00022  |  |
| Issued by/Original Signed By:<br><br>Nisha Sizemore, Chief<br>Permits Branch<br>Office of Air Quality | Issuance Date: October 9, 2007<br><br>Expiration Date: October 9, 2012 |

First Administrative Amendment No.: F029-26657-00022, issued on June 25, 2008.

|  |  |
|--|--|
| First Significant Permit Revision No.: F029-27310-00022  |  |
| Issued By:<br><br>Iryn Calilung, Section Chief<br>Permits Branch<br>Office of Air Quality | Issuance Date: June 17, 2009<br><br>Expiration Date: October 9, 2012 |

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## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

---

The Permittee owns and operates a stationary olivine processing facility.

|                              |  |
|------------------------------|--|
| Source Address:              | 137 Franklin Street, Aurora, Indiana 47001   |
| Mailing Address:             | P.O. Box 370, Aurora, Indiana 47001-0370   |
| General Source Phone Number: | (812) 926-0462   |
| SIC Code:                    | 3295   |
| County Location:             | Dearborn   |
| Source Location Status:      | Attainment for all criteria pollutants   |
| Source Status:               | Federally Enforceable State Operating Permit Program<br>Minor Source, under PSD and Emission Offset Rules<br>Minor Source, Section 112 of the Clean Air Act<br>Not 1 of 28 Source Categories |

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

---

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

(a) One (1) drying circuit constructed in 1988 and consisting of the following units:

- (1) One (1) natural gas-fired rotary dryer, identified as DR-01, with a maximum heat input capacity of 12.6 MMBtu per hour and a maximum olivine throughput of 20 tons per hour. The dryer was manufactured prior to 1986 and installed at this location in 1988.
- (2) One (1) belt conveyor, identified as BC-09, with a maximum throughput capacity of 3 tons of olivine per hour.
- (3) One (1) de-duster drum, identified as DD-01, with a maximum capacity of 3 tons of olivine per hour.

These units are controlled by one (1) baghouse, identified as DC-01. DC-01 has a grain loading of 0.0166 grains/actual standard cubic feet and an actual collection efficiency of 99%.

(b) One (1) screening and intermediate storage circuit constructed in 1988 and consisting of the following units:

- (1) One (1) crusher, identified as CR-01, with a maximum capacity of 20 tons of olivine per hour.
- (2) Six (6) belt conveyors, identified as BC-02, BC-03, BC-04, BC-05, BC-06, and BC-11. BC-02, BC-03 and BC-06 each have a maximum capacity of 20 tons of olivine per hour. BC-04 and BC-11 each have a maximum capacity of 10 tons of olivine per hour. BC-05 has a maximum capacity of 15 tons of olivine per hour.

- (3) Four (4) bucket elevators, identified as BE-01, BE-03, BE-04, and BE-07, having a maximum capacity of 20, 15, 5, and 60 tons of olivine per hour, respectively.
- (4) Two (2) storage bins, identified as BN-10 and BN-11, with a maximum capacity of 13 and 10 tons of olivine per hour, respectively.
- (5) Two (2) vibratory screens, identified as VS-01 and VS-02, each with a maximum capacity of 20 tons of olivine per hour.
- (6) One (1) coarse paper bagging unit, identified as BA-05, with a maximum capacity of 5 tons per hour.

BN-10 and BC-05 are controlled by dust collector DC-06. DC-06 has an outlet grain loading of 0.02 grains per dry standard cubic foot. All other units are controlled by baghouse DC-02, which has a grain loading of 0.0137 grains/actual standard cubic feet and an actual collection efficiency of 99%.

- (c) One (1) sand sizing circuit constructed in 1988 and consisting of the following units:
- (1) One (1) elevator, identified as BE-02, with a maximum capacity of 15 tons of sand per hour.
  - (2) One (1) storage bin, identified as BN-08, with a maximum capacity of 11 tons of olivine per hour.
  - (3) One (1) drop out bin, identified as BN-12, with a maximum capacity of 5 tons of olivine per hour.

These units are controlled by one (1) baghouse, identified as DC-03. DC-03 has an actual collection efficiency of 99%.

- (d) One (1) bagging and bulk loadout process constructed in 1988 and consisting of the following units:
- (1) Four (4) belt conveyors, identified as BC-07, BC-08, BC-12, and BC-13, having a maximum capacity of 60, 30, 10 and 20 tons of olivine per hour, respectively.
  - (2) Three (3) bucket elevators, identified as BE-05, BE-06, and BE-08 with a maximum capacity of 60, 3, and 40 tons of olivine per hour, respectively.
  - (3) Ten (10) storage bins, identified as BN-01, BN-02, BN-03, BN-04, BN-05, BN-06, BN-07, BN-14, BN-15 (constructed in 2003) and BN-16. Storage bins BN-02, BN-04, BN-05, and BN-06 each have a maximum capacity of 11 tons of olivine per hour. Storage bins BN-14, BN-15 and BN16 each have a maximum capacity of 40 tons of olivine per hour. Storage bins BN-01, BN-03, and BN-07 have a maximum capacity of 10, 5, and 1 tons of olivine per hour, respectively.
  - (4) Two (2) bagger surge bins, identified as SB-01 and SB-02, each with a maximum capacity of 30 tons of olivine per hour.
  - (5) Two (2) truck loadouts, identified as LS-01 and LS-03, with a maximum capacity of 60 tons of olivine per hour and 5 tons of olivine per hour, respectively.
  - (6) One (1) paper/bulk sack bagger and one (1) paper bagger, identified BA-01/BA-11 and BA-02 respectively, each with a maximum capacity of 9 tons per hour.

- (7) Two (2) vibratory screens, identified as VS-04 and VS-05, having a maximum capacity of 9 and 10 tons per hour of olivine, respectively.

These units are controlled by one (1) baghouse, identified as DC-04. DC-04 has an actual collection efficiency of 99%.

- (e) One (1) fines circuit constructed in 1988 and consisting of the following units:

- (1) One (1) bin, identified as BN-13, with a maximum capacity of 5 tons of olivine per hour.
- (2) One paper/bulk sack bagger, identified as BA-03/BA-13, with a maximum capacity of 5 tons of olivine per hour.

These units are controlled by one (1) baghouse, identified as DC-05. DC-05 has an actual collection efficiency of 99%.

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities:

- (a) One (1) natural gas-fired space heater with a maximum heat input capacity of 0.35 MMBtu per hour.
- (b) Combustion source flame used for safety purging on startup.
- (c) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.
- (d) Cleaners and solvents characterized as follows:
- (1) having a vapor pressure equal to or less than 2 kPa; 15 mmHg; or 0.3 psi measured at 38 degrees C; or
- (2) having a vapor pressure equal to or less than 0.7 kPa; 5 mmHg; or 0.1 psi measured at 20 degrees C,

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

- (e) Maintenance activities including: grinding machine, brazing equipment, cutting torches, and welding equipment.
- (f) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (g) Paved and unpaved roads and parking lots with public access [326 IAC 6-5]
- (h) Air dryer blowdown.
- (i) One (1) emergency portable gasoline pump.
- (j) One (1) compressor dryer.
- (k) One (1) dry screening quality control laboratory.
- (l) Activities with emissions equal to or less than 5 pounds per hour of particulate matter:

- (1) Two (2) loadout spouts, identified as LS-04 and LS-05, each having a maximum capacity of 60 tons of olivine per hour. [326 IAC 6.5-1-2]
  - (2) One (1) plant feed hopper, identified as HO-01, with a maximum capacity of 20 tons of olivine. [326 IAC 6.5-1-2]
  - (3) Four (4) waste totes, identified as HO-02, HO-03, HO-04, and HO-05, each with a maximum capacity of 1 ton. [326 IAC 6.5-1-2]
  - (4) One (1) coarse truck loadout/sack, identified as LS-02/BA-12, with a maximum capacity of 60 tons per hour. [326 IAC 6.5-1-2]
  - (5) Two (2) coarse sack baggers, identified as BA-14 and BA-15, having a maximum capacity of 25 and 9 tons per hour, respectively. [326 IAC 6.5-1-2]
  - (6) One (1) feeder conveyor and one (1) belt conveyor, identified as FE-01 and BC-01, respectively, each having a maximum capacity of 20 tons of olivine per hour. [326 IAC 6.5-1-2]
  - (7) One (1) storage bin, identified as BN-09, having a maximum capacity of 10 tons of olivine per hour. [326 IAC 6.5-1-2]
- (m) One (1) diesel storage tank, with a maximum capacity of 300 gallons, constructed in 2003.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

## **SECTION B GENERAL CONDITIONS**

### **B.1 Definitions [326 IAC 2-8-1]**

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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 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]**

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- (a) This permit, F029-15387-00022, 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, until the renewal permit has been issued or denied.

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

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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 2-8-6]**

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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 2-8-4(4)]**

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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 2-8-4(5)(D)]**

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

### **B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]**

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- (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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1). 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 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]**

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- (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 an "authorized individual" 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) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

**B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]**

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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 July 1 of each year to:

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

- (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 2-8-4(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

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

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

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

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.12 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or  
Telephone Number: 317-233-0178 (ask for Compliance Section)  
Facsimile Number: 317-233-6865

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

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
MC 61-53 IGCN 1003  
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 2-8-4(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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 2-8-3(c)(6) 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 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

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

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

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

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- (a) All terms and conditions of permits established prior to F029-15387-00022 and issued pursuant to permitting programs approved into the state implementation plan have been either
  - (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

**B.14 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]**

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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 2-8-4(3)(C)(ii)]**

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

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
MC 61-53 IGCN 1003  
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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]

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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 Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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 2-8-8(a)]
- (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 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(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 2-8-8(c)]

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

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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 2-8-3. 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permit Administrative Support Section, Office of Air Quality  
MC 61-53 IGCN 1003  
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 2-8 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 Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 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  
Permit Administrative Support Section, Office of Air Quality  
MC 61-53 IGCN 1003  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251
- Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) without a prior permit revision, if each of the following conditions is met:
- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
  - (2) Any approval required by 326 IAC 2-8-11.1 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  
Permit Administrative Support Section, Office of Air Quality  
MC 61-53 IGCN 1003  
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 2-8-15(b) through (d). 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 2-8-15(b)(2), (c)(1), and (d).

- (b) Emission Trades [326 IAC 2-8-15(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 2-8-15(c).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(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 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (d) 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.20 Permit Revision Requirement [326 IAC 2-8-11.1]**

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A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

**B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]**

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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 FESOP 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, at reasonable times, 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, at reasonable times, 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, at reasonable times, 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.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 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  
Permit Administrative Support Section, Office of Air Quality  
MC 61-53 IGCN 1003  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251  
  
The application which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

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

B.24 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][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 2-8-4(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 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) The potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period. This limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

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

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

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

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

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

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

C.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 according to the Fugitive Dust Control Plan included as Appendix A to this permit.

C.8 Stack Height [326 IAC 1-7]

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The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

#### **C.10 Performance Testing [326 IAC 3-6]**

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- (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 and Enforcement Branch, Office of Air Quality  
MC 61-53 IGCN 1003  
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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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.11 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 2-8-4][326 IAC 2-8-5(a)(1)]**

#### **C.12 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(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 and Enforcement Branch, Office of Air Quality  
MC 61-53 IGCN 1003  
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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

**C.13 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.14 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(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 2-8-4][326 IAC 2-8-5(a)(1)]**

**C.15 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 and Enforcement Branch, Office of Air Quality  
MC 61-53 IGCN 1003  
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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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.16 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

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

C.17 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

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

C.18 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

- (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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

#### C.19 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (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.20 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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 and Enforcement Branch, Office of Air Quality  
MC 61-53 IGCN 1003  
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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit

“calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

### **Stratospheric Ozone Protection**

#### **C.21 Compliance with 40 CFR 82 and 326 IAC 22-1**

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

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

## SECTION D.1

## EMISSIONS UNIT OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (a) One (1) drying circuit constructed in 1988 and consisting of the following units:
- (1) One (1) natural gas-fired rotary dryer, identified as DR-01, with a maximum heat input capacity of 12.6 MMBtu per hour and a maximum olivine throughput of 20 tons per hour. The dryer was manufactured prior to 1986 and installed at this location in 1988.
  - (2) One (1) belt conveyor, identified as BC-09, with a maximum throughput capacity of 3 tons of olivine per hour.
  - (3) One (1) de-duster drum, identified as DD-01, with a maximum capacity of 3 tons of olivine per hour.

These units are controlled by one (1) baghouse, identified as DC-01. DC-01 has a grain loading of 0.0166 grains/actual standard cubic feet and an actual collection efficiency of 99%.

- (b) One (1) screening and intermediate storage circuit constructed in 1988 and consisting of the following units:
- (1) One (1) crusher, identified as CR-01, with a maximum capacity of 20 tons of olivine per hour.
  - (2) Six (6) belt conveyors, identified as BC-02, BC-03, BC-04, BC-05, BC-06, and BC-11. BC-02, BC-03 and BC-06 each have a maximum capacity of 20 tons of olivine per hour. BC-04 and BC-11 each have a maximum capacity of 10 tons of olivine per hour. BC-05 has a maximum capacity of 15 tons of olivine per hour.
  - (3) Four (4) bucket elevators, identified as BE-01, BE-03, BE-04, and BE-07, having a maximum capacity of 20, 15, 5, and 60 tons of olivine per hour, respectively.
  - (4) Two (2) storage bins, identified as BN-10 and BN-11, with a maximum capacity of 13 and 10 tons of olivine per hour, respectively.
  - (5) Two (2) vibratory screens, identified as VS-01 and VS-02, each with a maximum capacity of 20 tons of olivine per hour.
  - (6) One (1) coarse paper bagging unit, identified as BA-05, with a maximum capacity of 5 tons per hour.

BN-10 and BC-05 are controlled by dust collector DC-06. DC-06 has an outlet grain loading of 0.02 grains per dry standard cubic foot.

All other units are controlled by baghouse DC-02, which has a grain loading of 0.0137 grains/actual standard cubic feet and an actual collection efficiency of 99%.

- (c) One (1) sand sizing circuit constructed in 1988 and consisting of the following units:
- (1) One (1) elevator, identified as BE-02, with a maximum capacity of 15 tons of sand per hour.
  - (2) One (1) storage bin, identified as BN-08, with a maximum capacity of 11 tons of olivine per hour.

- (3) One (1) drop out bin, identified as BN-12, with a maximum capacity of 5 tons of olivine per hour.

These units are controlled by one (1) baghouse, identified as DC-03. DC-03 has an actual collection efficiency of 99%.

- (d) One (1) bagging and bulk loadout process constructed in 1988 and consisting of the following units:

- (1) Four (4) belt conveyors, identified as BC-07, BC-08, BC-12, and BC-13, having a maximum capacity of 60, 30, 10 and 20 tons of olivine per hour, respectively.
- (2) Three (3) bucket elevators, identified as BE-05, BE-06, and BE-08 with a maximum capacity of 60, 3, and 40 tons of olivine per hour, respectively.
- (3) Ten (10) storage bins, identified as BN-01, BN-02, BN-03, BN-04, BN-05, BN-06, BN-07, BN-14, BN-15 (constructed in 2003) and BN-16. Storage bins BN-02, BN-04, BN-05, and BN-06 each have a maximum capacity of 11 tons of olivine per hour. Storage bins BN-14, BN-15 and BN16 each have a maximum capacity of 40 tons of olivine per hour. Storage bins BN-01, BN-03, and BN-07 have a maximum capacity of 10, 5, and 1 tons of olivine per hour, respectively.
- (4) Two (2) bagger surge bins, identified as SB-01 and SB-02, each with a maximum capacity of 30 tons of olivine per hour.
- (5) Two (2) truck loadouts, identified as LS-01 and LS-03, with a maximum capacity of 60 tons of olivine per hour and 5 tons of olivine per hour, respectively.
- (6) One (1) paper/bulk sack bagger and one (1) paper bagger, identified BA-01/BA-11 and BA-02 respectively, each with a maximum capacity of 9 tons per hour.
- (7) Two (2) vibratory screens, identified as VS-04 and VS-05, having a maximum capacity of 9 and 10 tons per hour of olivine, respectively.

These units are controlled by one (1) baghouse, identified as DC-04. DC-04 has an actual collection efficiency of 99%.

- (e) One (1) fines circuit constructed in 1988 and consisting of the following units:

- (1) One (1) bin, identified as BN-13, with a maximum capacity of 5 tons of olivine per hour.
- (2) One paper/bulk sack bagger, identified as BA-03/BA-13, with a maximum capacity of 5 tons of olivine per hour.

These units are controlled by one (1) baghouse, identified as DC-05. DC-05 has an actual collection efficiency of 99%.

**Insignificant Activities:**

- (l) Activities with emissions equal to or less than 5 pounds per hour of particulate matter:
  - (1) Two (2) loadout spouts, identified as LS-04 and LS-05, each having a maximum capacity of 60 tons of olivine per hour. [326 IAC 6.5-1-2]

- (2) One (1) plant feed hopper, identified as HO-01, with a maximum capacity of 20 tons of olivine. [326 IAC 6.5-1-2]
  - (3) Four (4) waste totes, identified as HO-02, HO-03, HO-04, and HO-05, each with a maximum capacity of 1 ton. [326 IAC 6.5-1-2]
  - (4) One (1) coarse truck loadout/sack, identified as LS-02/BA-12, with a maximum capacity of 60 tons per hour. [326 IAC 6.5-1-2]
  - (5) Two (2) coarse sack baggers, identified as BA-14 and BA-15, having a maximum capacity of 25 and 9 tons per hour, respectively. [326 IAC 6.5-1-2]
  - (6) One (1) feeder conveyor and one (1) belt conveyor, identified as FE-01 and BC-01, respectively, each having a maximum capacity of 20 tons of olivine per hour. [326 IAC 6.5-1-2]
  - (7) One (1) storage bin, identified as BN-09, having a maximum capacity of 10 tons of olivine per hour. [326 IAC 6.5-1-2]
- (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 2-8-4(1)]**

**D.1.1 PSD Minor Limits for PM [326 IAC 2-2] [326 IAC 2-1.1-5]**

Pursuant to 326 IAC 2-1.1-5 (Air Quality Requirements), and in order to render the requirements of 326 IAC 2-2 not applicable, the emissions of PM shall be limited as follows:

| Facility                                   | Baghouse | PM Emission Limit (lbs/hour) |
|--|----------|------------------------------|
| Drying Circuit                             | DC-01    | 2.28                         |
| Screening and Intermediate Storage Circuit | DC-02    | 2.28                         |
|  | DC-06    | 0.65                         |
| Sand Sizing Circuit                        | DC-03    | 1.53                         |
| Bagging and Bulk Loadout                   | DC-04    | 0.65                         |
| Fines Circuit                              | DC-05    | 0.80                         |

Compliance with these limitations ensures that the PM emissions from the entire source shall not exceed 250 tons per twelve (12) consecutive month period and makes the source minor for 326 IAC 2-2 (Prevention of Significant Deterioration).

**D.1.2 FESOP Limits for PM10 and PM2.5 [326 IAC 2-8] [326 IAC 2-1.1-5]**

Pursuant to 326 IAC 2-1.1-5 (Air Quality Requirements), and 326 IAC 2-8-4, the emissions of PM-10 and PM2.5 shall be limited as follows:

| Facility                                   | Baghouse | PM10 Emission Limit (lbs/hour) | PM2.5 Emission Limit (lbs/hr) |
|--|----------|--------------------------------|-------------------------------|
| Drying Circuit                             | DC-01    | 2.28                           | 0.27                          |
| Screening and Intermediate Storage Circuit | DC-02    | 2.28                           | 0.29                          |
|  | DC-06    | 0.65                           | 0.02                          |
| Sand Sizing Circuit                        | DC-03    | 1.53                           | 0.01                          |
| Bagging and Bulk Loadout                   | DC-04    | 0.65                           | 0.09                          |
| Fines Circuit                              | DC-05    | 0.80                           | 0.02                          |

Compliance with these limitations ensures that the PM10 and PM2.5 emissions from the entire source do not exceed 100 tons per twelve (12) consecutive month period and makes 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-2 (PSD) not applicable.

**D.1.3 Particulate Emission Limits [326 IAC 6.5-1-2(a)]**

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Pursuant to 326 IAC 6.5-1-2(a) (Particulate Emission Limitations), the particulate matter emissions from each emission unit at this source, including the insignificant activities, shall not exceed seven-hundredths (0.07) gram per dry standard cubic meter (g/dscm) (three-hundredths (0.03) grain per dry standard cubic foot (gr/dscf)).

**D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

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

**Compliance Determination Requirements**

**D.1.5 Particulate Control**

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- (a) In order to comply with Conditions D.1.1, D.1.2 and D.1.3, the baghouses used to control particulate emissions shall be in operation and control emissions from the drying circuit, screening and intermediate storage circuit, sand sizing circuit, bagging and bulk loadout, and fines circuit at all times these facilities 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.1.6 Testing Requirements [326 IAC 2-1.1-11]**

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In order to demonstrate compliance with Conditions D.1.1 and D.1.2, the Permittee shall perform testing according the following:

PM, PM10, and PM2.5 testing for the drying circuit, screening and intermediate storage circuit, sand sizing circuit, bagging and bulk loadout, and fines circuit, utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 and PM2.5 includes filterable and condensible PM.

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**D.1.7 Visible Emissions Notations [326 IAC 2-1.1-11]**

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- (a) Visible emission notations of the baghouse stack exhausts shall be performed once per shift 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.1.8 Parametric Monitoring [326 IAC 2-1.1-11]

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The Permittee shall record the pressure drop across the baghouses used in conjunction with the drying circuit, screening and intermediate storage circuit, sand sizing circuit, bagging and bulk loadout, and fines circuit at least once per shift when these processes are in operation. When for any one reading, the pressure drop across a baghouse is outside the normal range specified in the following table or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions and Exceedances.

| Baghouse I.D | Pressure Drop Range<br>(inches of water) |
|--------------|--|
| DC-01        | 1.0 -10.0                                |
| DC-02        | 0.4 – 6.0                                |
| DC-03        | 0.4 – 6.0                                |
| DC-04        | 0.4 – 6.0                                |
| DC-05        | 0.4 – 6.0                                |
| DC-06        | 0.4 – 6.0                                |

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, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

#### D.1.9 Baghouse Inspections [326 IAC 2-1.1-11]

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An inspection shall be performed each calendar quarter of all bags controlling the drying circuit, screening and intermediate storage circuit, sand sizing circuit, bagging and bulk loadout, and fines circuit. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

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

---

- (a) For a single compartment baghouses controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions units. 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 2-8-4(3)]**

#### **D.1.11 Record Keeping Requirement**

---

- (a) To document compliance with Condition D.1.7, the Permittee shall maintain records of the once per shift visible emission notations of the baghouse stack exhausts. The Permittee shall include in its records when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (b) To document compliance with Condition D.1.8, the Permittee shall maintain records of the once per shift pressure drop for each baghouse. The Permittee shall include in its records when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).
- (c) To document compliance with Condition D.1.9, the Permittee shall maintain records of the results of the inspections required under Condition D.1.9.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

### FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Unimin Corporation  
Source Address: 137 Franklin Street, Aurora, Indiana 47001  
Mailing Address: P.O. Box 370, Aurora, Indiana 47001-0370  
FESOP Permit No.: F029-15387-00022

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Date:

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY OCCURRENCE REPORT**

Source Name: Unimin Corporation  
Source Address: 137 Franklin Street, Aurora, Indiana 47001  
Mailing Address: P.O. Box 370, Aurora, Indiana 47001-0370  
FESOP Permit No.: F029-15387-00022

**This form consists of 2 pages**

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- |  |
|--|
| <p><input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12)</p> <ul style="list-style-type: none"><li>• 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</li><li>• The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16</li></ul> |
|--|

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<br>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: \_\_\_\_\_

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH  
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Unimin Corporation  
Source Address: 137 Franklin Street, Aurora, Indiana 47001  
Mailing Address: P.O. Box 370, Aurora, Indiana 47001-0370  
FESOP Permit No.: F029-15387-00022

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

Page 1 of 2

|   |                               |
|---|-------------------------------|
| <p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked ΔNo deviations occurred this reporting period@.</p> |                               |
| <input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.  |                               |
| <input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD  |                               |
| <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>                           |                               |
| <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.

## Appendix A

### Unimin Corporation – Aurora Facility Fugitive Emissions Dust Control Plan

Per 326 IAC 6-5-1(b), the Aurora facility is required to prepare a control plan for fugitive particulate matter emissions. The contents of the Dust Control Plan is set down in writing as per 326 IAC 6-5-5(a) and contains the information identified in 326 IAC 6-5-5 (1) through (12). Per 326 IAC 6-5-8, the Control Plan will be updated at the time of reapplication for Aurora’s operating permit.

**(1) Source:** Unimin Corporation  
Aurora Olivine Processing Facility  
P.O. Box 370  
137 Franklin Street  
Aurora, IN 47001-0370

**(2) Owner/Operator Responsible for the Execution of the Control Plan:**

**Same as above**

**Contact:** Aurora Plant Manager Tel: 812-926-0462 Fax: 812-926-0913

**(3) Identification of Potential Emission Sources**

Fugitive particulate matter emissions are generated from multiple sources at the Aurora plant site. Per 326 IAC 6-5-4, the emission sources are identified as the following emission points:

- (a) Plant yard, internal roads and parking lots;
- (b) Outdoor raw material (olivine) aggregate stockpiles;
- (c) Outdoor Olivine Fines Pile;
- (d) Outdoor Contractor Fill Pile;
- (e) Outdoor conveying and transfer of aggregate material;
- (f) Transportation of aggregate material by truck, front end loader, or similar vehicles;
- (g) Loadout of paper bags, bulk totes, and bulk trucks;
- (h) Solid waste handling;
- (i) Material handling operations;
- (j) Escape through building opening such as doors, windows, powered or unpowered ventilators, roof monitors, other than a stack.

**(4) Site map**

A site map is provided at the end of this document.

**(5) Vehicular Activity**

| Vehicles         | Trips/hour | Speed (mph) | Distance (Miles per round trip) | Gross/Tare Weights (Tons) | No. of wheels |
|------------------|------------|-------------|---------------------------------|---------------------------|---------------|
| Tractor Trailer  | <4         | 5           | ~ 0.2                           | 40/15                     | 18            |
| Tandem Truck     | <6         | 5           | ~ 0.2                           | 35/13                     | 14            |
| Front-end Loader | ~10        | 5           | ~ 400 feet                      | 18/12                     | 4             |
| Forklifts        | ~10        | 5           | ~ 400 feet                      | unknown                   | 4             |
| Plant vehicle    | <1         | 5           | 0.2                             | 0.5/0.5                   | 4             |

**(6) Type and Quantity of material handled**

Raw material stockpiles consist of olivine aggregate, which is an inert mineral. The material can be dried, crushed, sized and shipped as bulk and/or bagged products, depending on customer specifications. The plant can process a maximum of 60 tons of olivine per hour.

**(7) Equipment used to maintain aggregate piles**

Outdoor stockpiles are generated by tandem truck dumping. A front-end loader is used for conveying raw material to the processing equipment. In addition, the loader is used to recycle processed material back to the stockpiles. Forklifts are used for conveying/loading bagged material and transferring tote-hoppers.

The facility will utilize a Municipal street cleaner until Unimin purchases a sweeper that will consist of a front-end loader equipped with an angled spinning broom and water tank.

**(8) Description of Control Measure**

Described below under CONTROL MEASURES.

**(9) Specification of dust suppressant material**

Water is the primary dust suppressant. A generic chemical dust suppressant shall be applied on the contractor fill pile.

**(10) Specifications of the particulate matter collection equipment**

Specifications of the particulate matter collection equipment are identified in the IDEM air permit, which may be amended from time to time.

**(11) Schedule of Compliance**

**(12) Recordkeeping**

Unimin will maintain records for three years, which document applicable control measures and activities to be implemented for this Dust Control Plan. Most of the maintenance records will be maintained on the electronic database and can be recalled at the request of an inspector. Records of the rental of the street cleaners are maintained in the purchasing files.

## CONTROL MEASURES

Control measures for fugitive particulate matter emissions generated from the emission points listed in Item 3, are identified below:

| Process  | Required Physical and Operational Controls   | Implementation Schedule  |
|--|--|--|
| <p>Internal Roads, Plant Yard, and Parking Lots</p> <p><b>Description:</b> The plant yard (excluding stockpile area), internal roads, and parking lots are paved.</p>  | <ol style="list-style-type: none"> <li>1. The plant yard, internal roads, and parking lots shall be paved.</li> <li>2. Paved areas shall be cleaned by sweeping, shovelling, and/or water hose.</li> <li>3. Paved areas shall be cleaned using a sweeper. If excessive dust is present, the roads shall be misted with water prior to sweeping.</li> </ol>   | <ul style="list-style-type: none"> <li>• Sweeping, shovelling and washdowns shall occur, as needed (excluding measurable rain event or winter weather conditions)</li> <li>• The paved areas shall be swept as needed and at least once a week.</li> </ul>   |
| <p>Outdoor Raw Material (Olivine) Aggregate Stockpiles</p> <p><b>Description:</b> Olivine sand is stored outdoors on bare ground. The stockpiles are over 30-foot high and cover an area roughly 200-feet wide by 400-feet long. The pile is accessed daily as feed to the plant. Processed material that is recycled into the piles is blended or buried in the raw material.</p> | <ol style="list-style-type: none"> <li>1. The perimeter of the stockpiles shall be contained by concrete blocks at least up to 32 inches in height, as indicated on the attached site plan.</li> <li>2. At least four portable sprinkler heads shall be distributed across the piles to spray water to suppress dust.</li> <li>3. Unimin shall investigate the transfer of excess processed material to a silo instead recycling it back to the stockpiles to minimize exposure during handling</li> </ol> | <ul style="list-style-type: none"> <li>• The sprinklers shall be operated as needed but not less than every eight hours (excluding measurable rain events or winter weather conditions). The sprinklers shall be relocated as needed to provide sufficient dust control across all the stockpiles. Sprinklers shall be operated regardless if the plant is operating (i.e. down days, holidays, night time, etc.)</li> </ul> |

| Process   | Required Physical and Operational Controls  | Implementation Schedule   |
|---|---|---|
| <p>Outdoor Olivine Fines Pile <b>Description:</b> Dust collector rejects (fines) are emptied into 1-ton portable hoppers for transport via forklift to a three-sided bunker, where it is later transferred to the Contractor Fill Pile.</p>   | <ol style="list-style-type: none"> <li>1. Where applicable, the hoppers shall be covered when filled.</li> <li>2. The hoppers shall be slowly dumped. Material free fall be minimized. The operators shall be trained to slowly dump the hoppers and minimize material free fall.</li> <li>3. Water shall be applied to the Fines Pile to suppress dust.</li> <li>4. Unimin shall re-locate the sprinkler head from a side position to one that overhangs the pile to ensure better distribution of water for dust suppression.</li> </ol>  | <ul style="list-style-type: none"> <li>• First Training shall occur within 30 days of hire or issuance of 029-15387-00022. Training refreshers shall occur at a minimum annually.</li> <li>• The sprinklers shall be operated during addition or removal of material from the Fines Pile or if the material begins to dry out (excluding measurable rain events or winter weather conditions).</li> </ul> |
| <p>Outdoors Contractor Fill Piles <b>Description:</b> Contractor fill grade material is stockpiled at the south end of the property. Commercial dump trucks are loaded and shipped, on demand, for the construction trade.</p>  | <ol style="list-style-type: none"> <li>1. Product shall be wetted prior to placement at the Contractor Fill Pile.</li> <li>2. Chemical sealants shall be applied to the contractor Fill Pile to suppress dust.</li> </ol>   | <ul style="list-style-type: none"> <li>• The chemical sealant shall be applied as needed, depending on the volume of material and the wetness of the season but at least with every disturbance.</li> </ul>   |
| <p>Outdoor conveying and transfer of aggregate material <b>Description:</b> Olivine from the raw material stockpile is transported via front-end loader to a feed hopper, which is a three-sided roofed structure. Outdoor conveying equipment is covered with hoods or enclosures.</p> | <ol style="list-style-type: none"> <li>1. The operators shall be trained to reduce the free fall of aggregate during material transfer. When discharging a silo or bin for recycling, the front-end bucket shall be placed immediately under the loadout spout and lowered slowly until it is full. When placing material into the stockpile, the bucket shall be placed against the ground and then rolled forward until empty, so the bucket forms a makeshift hood.</li> <li>2. Front-end loader operators have been trained to maintain low-speeds, below five (5) miles per hour, to reduce airborne dust.</li> <li>3. On windy days, activities shall be curtailed or loaded from the backside of the pile.</li> <li>4. Outdoor conveying equipment shall be covered with hoods or enclosures.</li> </ol> | <ul style="list-style-type: none"> <li>• First Training shall occur within 30 days of hire or issuance of 029-15387-00022. Training refreshers shall occur at a minimum annually.</li> <li>• First Training shall occur within 30 days of hire or issuance of 029-15387-00022. Training refreshers shall occur at a minimum annually.</li> </ul>  |

| Process  | Required Physical and Operational Controls  | Implementation Schedule  |
|--|---|--|
| <p>Transportation of aggregate material by truck, front-end loader or similar vehicles<br/> <b>Description:</b> Dump trucks bring in the raw material and end-load it into the olivine raw material stockpiles. A front-end loader conveys the raw material to the process; recycles excess product back into the stockpiles; and transfers material from the fines pile to the Contractor Fill Pile. Forklifts move bagged material to storage or trucks for shipment. Forklifts move hoppers filled with dust collector rejects to the fines pile. On-site transport distances are short (~200 feet). Tractor-trailers haul bags, totes and bulk material to market.</p> | <ol style="list-style-type: none"> <li>1. Vehicles shall maintain posted speeds of 5 miles per hour on the truck entrance road. There shall be speed bumps on the truck entrance road.</li> <li>2. Vehicle speeds on-site are restricted by tight turns and short hauls. Front-end loader operators shall be trained to maintain low-speeds.</li> <li>3. Trucks carrying product entering and leaving the site shall be tarped.</li> </ol>  | <ul style="list-style-type: none"> <li>• First Training shall occur within 30 days of hire or issuance of 029-15387-00022. Training refreshers shall occur at a minimum annually.</li> </ul> |
| <p>Loadout of paper bags, bulk totes, and bulk trucks<br/> <b>Description:</b> Product is shipped as palleted paper bags, bulk totes, and bulk trucks. Bulk totes are filled outdoors. Paper bags are filled inside the warehouse while utilizing baghouses, then palleted and wrapped.</p>  | <ol style="list-style-type: none"> <li>1. The bags shall be lifted during loading to minimize the free fall distance of material and exposure to wind.</li> <li>2. The bulk truck loadout sidewalls shall extend to 6" above the pavement. The bulk truck loadout ends shall be curtained.</li> <li>3. An overhead door shall be installed to allow equipment traffic through the loadout sidewalls.</li> <li>4. Operational controls, such as closing bulk product truck hatches, shall be used as necessary.</li> </ol> | <ul style="list-style-type: none"> <li>• First Training shall occur within 30 days of hire or issuance of 029-15387-00022. Training refreshers shall occur at a minimum annually.</li> </ul> |

| Process   | Required Physical and Operational Controls  | Implementation Schedule   |
|---|---|---|
| <p>Solid Waste Handling<br/> <b>Description:</b> There are no “tailings” generated at the Aurora facility. Off-spec mineral product is recycled into the plant process wherever feasible. On the rare occasion when surplus mineral product is not marketable, it is hauled to a licensed waste disposal site. Solid wastes consist primarily of office and plant trash.</p>  | <ol style="list-style-type: none"> <li>1. Trash shall be placed in designated waste bins and hauled off-site by disposal contractors.</li> <li>2. Plant-specific Policy/Procedures shall be followed to properly manage plant wastes.</li> </ol>  | <ul style="list-style-type: none"> <li>• Trash shall be removed on regularly scheduled pickups.</li> <li>• The ‘Plant Waste Disposal, Landfills and Trespass Dumps’ Policy/Procedure and the ‘Plant Surplus Equipment and Boneyard Management’ Policy/Procedures shall be reviewed annually and updated, as necessary.</li> </ul> |
| <p>Material handling operations<br/> <b>Description:</b> The industrial activities include industrial olivine storage, processing, handling, and shipping. Olivine processing includes drying, crushing, screening and classification to obtain different sized olivine products.</p>   | <p>Drying, crushing, screening and loadout activities are directed to baghouses.</p>  | <ul style="list-style-type: none"> <li>• Baghouses shall be maintained as per the FESOP air permit.</li> </ul>  |
| <p>Escape through building opening such as doors, windows, powered or unpowered ventilators, roof monitors, other than a stack<br/> <b>Description:</b> There are two process buildings with mechanical vents and openings (North Warehouse and Screenhouse). The North Warehouse contains three baggers in addition to product inventory. The baggers all utilize dust collectors. The North Warehouse building vent is for ventilation purposes. The Screenhouse has two building vents for ventilation purposes. All process equipment in the Screenhouse also reports to dust collectors, so pollutants are not expected to discharge through the openings.</p> | <ol style="list-style-type: none"> <li>1. Unimin shall follow an equipment maintenance program (Qqest) to ensure proper maintenance of the process equipment and dust collection systems.</li> <li>2. Good housekeeping shall be employed to reduce indoor spillage and nuisance dust, which could escape through doors and vents.</li> </ol> | <ul style="list-style-type: none"> <li>• First Training shall occur within 30 days of hire or issuance of 029-15387-00022. Training refreshers shall occur at a minimum annually. Training refreshers shall occur at a minimum annually.</li> </ul>   |



North Arrow (as marked in the top right hand corner of the Google aerial)

Scale (as marked in the bottom left hand corner of the Google aerial)

## LEGEND

- Property line – solid orange line
- Line of concrete blocks – dashed black line
- Sprinkler stand pipes for sprinkler hose hook ups - blue circles

**Note:** The positions of the property lines and the line of concrete blocks around the stockpile perimeter have been approximated, then superimposed on the aerial view within the limits of the software program.

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

Addendum to the Technical Support Document (ATSD) for a  
Significant Permit Revision to a FESOP

**Source Background and Description**

|   |  |
|---|--|
| <b>Source Name:</b>                     | <b>Unimin Corporation</b>                    |
| <b>Source Location:</b>                 | <b>137 Franklin Street, Aurora, IN 47001</b> |
| <b>County:</b>                          | <b>Dearborn County</b>                       |
| <b>SIC Code:</b>                        | <b>3295</b>                                  |
| <b>Operation Permit No.:</b>            | <b>F 029-15387-00022</b>                     |
| <b>Operation Permit Issuance Date:</b>  | <b>October 9, 2007</b>                       |
| <b>Significant Permit Revision No.:</b> | <b>F 029-27310-00022</b>                     |
| <b>Permit Reviewer:</b>                 | <b>Jason R. Krawczyk</b>                     |

On March 31, 2009, the Office of Air Quality (OAQ) had a notice published in Journal Press, Lawrenceburg, Indiana, stating that Unimin Corporation had applied for a significant permit revision to their FESOP for the revision of their PM and PM10 lb/hr emission rates from baghouses DC-01 through DC-06, based on the results of the stack tests conducted between the dates of June 17, 2008 and June 20, 2008. The revision was also based on the most updated air modeling results. The notice also stated that the OAQ proposed to issue a significant permit revision 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.

**Comments and Responses**

On May 1, 2009, residents of Franklin Street, Aurora, Indiana submitted comments to IDEM, OAQ on the draft significant permit revision to a FESOP.

The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD, but the Permit will have the updated changes. The comments and revised permit language are provided below with deleted language as ~~strikeouts~~ and new language **bolded**.

**Comment 1:**

The residents of Franklin Street, Aurora, Indiana express health concerns regarding dust Pneumonia and other respiratory problems and ask whether or not residents should be advised to wear dust masks since they are living in the area located on contiguous or adjacent properties from Unimin Corporation. The residents had also requested a public hearing.

**Response to Comment 1:**

The Federal Clean Air Act requires the United States Environmental Protection Agency (U.S. EPA) to set National Ambient Air Quality Standards (NAAQS) for six criteria pollutants. These criteria pollutants are carbon monoxide (CO), lead (Pb), sulfur dioxide (SO<sub>2</sub>), particulate matter to a diameter of 2.5 microns (PM<sub>2.5</sub>), nitrogen oxides (NO<sub>x</sub>) and ground level ozone. More information about each of these pollutants is available at <http://www.epa.gov/air/airpollutants.html> on U.S. EPA's website. The U.S. EPA sets these standards at levels that protect human health, which is why the NAAQS are often referred to as the federal health standards for outdoor air. The NAAQS limit for all criteria pollutants is set low enough to protect the

health of even the most sensitive persons, such as children, the elderly and people with preexisting health conditions, such as asthma, bronchitis and cardiovascular disease. Each NAAQS also has a secondary standard. Secondary standards set limits to protect public welfare, including protection against visibility impairment, damage to animals, crops, vegetation, and buildings. The complete table of the NAAQS for all six criteria pollutants can be found at the <http://www.epa.gov/air/criteria.html> website. EPA's website <http://www.epa.gov/air/urbanair/6poll.html> provides more detailed information about the health effects of these six common air pollutants and why they are regulated.

The federal Clean Air Act requires the U.S. EPA to determine whether the ambient air in any area of the United States fails to meet any of the National Ambient Air Quality Standards (NAAQS). Any area that fails to meet one or more of the NAAQS will be designated as in "nonattainment" for that pollutant. Large air pollution sources in a nonattainment area are subject to additional regulations and the U.S. EPA may require that additional steps be taken that will result in the area meeting the NAAQS. The federal standard for ozone was strengthened on March 12, 2008. In 2010, the U.S. EPA will designate the areas that do not meet the new ozone standard. The U.S. EPA works with Indiana, Illinois and Kentucky in monitoring air pollution levels and in determining when air pollution modeling is needed.

IDEM conducts sampling of the ambient air at monitoring stations around Indiana. This air monitoring measures whether the NAAQS are being met. Information about Indiana's air monitoring system and monitoring results are available at <http://www.in.gov/idem/programs/air/amb/index.html>. Information about current and expected air pollution levels are on IDEM's SmogWatch site at <http://www.in.gov/apps/idem/smog/> on the internet.

The Office of Air Quality issues air pollution control permits to facilities that emit regulated levels of pollutants to the air. Permits require sources to comply with all health-based and technology-based standards established by the U.S. EPA and the Indiana Air Pollution Control Board. If an applicant demonstrates that they will be able to comply with all Federal and State laws regarding air pollution, IDEM is required by law to issue the air permit. For information on how to get involved in Indiana's Environmental Rulemaking Process, please go to <http://www.in.gov/idem/rules/involved.html>.

IDEM, OAQ, conducted an air modeling analysis of the Limited Potential to Emit (PTE) criteria pollutants from this proposed significant permit revision to estimate whether the Limited PTE criteria pollutants will cause or contribute to a violation of any National Ambient Air Quality Standard (NAAQS). The criteria pollutants included in the modeling analysis were particulate matter less than 10 microns (PM10), and particulate matter less than 2.5 microns (PM2.5).

The results of PM10 and PM2.5 modeling predicted that with the proposed permit limits, there is no location beyond the facility boundaries with modeled concentrations greater than the NAAQS limits. Therefore, there should be no adverse health impacts from the revised permit limits. IDEM's, Air Quality Analyses for Unimin Corporation - Appendices B and C, were included in the documents Public Noticed.

There is an inspector assigned to this source that has and will routinely inspect Unimin Corporation for compliance with each condition listed in the D section of this permit. These inspections are unannounced and there will be enforcement actions taken if Unimin Corporation is found to be in violation of any conditions in their Federally Enforceable State Operating Permit.

OAQ has conducted over 40 inspections and surveillances of Unimin in the last 10 years. These inspections were conducted by eight (8) different IDEM inspectors. This is an average of over 4 times a year. Of the inspections that have been conducted by OAQ, only one inspection resulted in finding a violation of 326 IAC 6-4 Fugitive Dust Rule. This occurred in April 2007 and was referred to the IDEM Office of Enforcement. As a result of this referral, the Office of Enforcement assessed a civil penalty of \$3,800 and required Unimin to comply with the FESOP permit.

OAQ is aware of the difficulties that can arise in neighborhoods which are shared by industries and homeowners. IDEM, OAQ will continue to inspect the plant to determine if the source is adequately controlling emissions and ensure compliance with its permit and Indiana regulations. Any citizen observing a possible violation of the plant's permit should immediately file a complaint with IDEM. Citizens may make a complaint about any air pollution concern by contacting the following Dearborn County IDEM, OAQ Compliance Inspector;

Larry Howard  
Indiana Department of Environmental Management  
100 North Senate Avenue  
MC-61-53 IGCN 1003  
Indianapolis, IN 46204-2551  
Ph: 317-234-3996  
email: [LHoward@idem.in.gov](mailto:LHoward@idem.in.gov)

by submitting a complaint online at <http://www.in.gov/idem/4174.htm>, by contacting IDEM's Complaint Coordinator at (800) 451-6027, extension 24464, or by sending a written complaint to IDEM, Attn: Complaint Coordinator, 100 North Senate Avenue, MC 50-03 IGCN 1313, Indianapolis, IN 46204-2251.

IDEM, OAQ's Compliance Inspector will respond to any citizen complaints of visible emissions, fugitive dust, or other air pollution concern regarding the facility by doing a complaint inspection. In every inspection, whether the result of a complaint or not, the IDEM, OAQ compliance inspector will monitor the facility to determine if it is complying with the permit. The inspector prepares a written report of each inspection. Copies of inspection reports can be obtained by contacting IDEM, OAQ's Compliance and Enforcement Branch at 1-800-452-6027, ext. 3-0178.

Based on this information, a public hearing is not warranted at this time. There are no changes to the permit as a result of the public comments.

#### Additional Changes

IDEM, OAQ has decided to make additional revisions to the permit as described below, with deleted language as ~~strikeouts~~ and new language **bolded**.

(a) IDEM has revised Condition D.1.6 as follows:

...  
**D.1.6 Testing Requirements [326 IAC 2-1.1-11]**

In order to demonstrate compliance with Conditions D.1.1 and D.1.2, the Permittee shall perform testing according the following:

- (a) ~~PM, PM10, and PM2.5 testing for the drying circuit, screening and intermediate storage circuit, sand sizing circuit, bagging and bulk loadout, and fines circuit, utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 and PM2.5 includes filterable and condensable PM.~~

#### IDEM Contact

(a) Questions regarding this proposed Significant Permit Revision can be directed to Jason R. Krawczyk at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 232-8427 or toll free at 1-800-451-6027 extension 2-8427.

- (b) A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.idem.in.gov](http://www.idem.in.gov)

## Indiana Department of Environmental Management Office of Air Quality

### Technical Support Document (TSD) for a Significant Permit Revision to a Federally Enforceable State Operating Permit (FESOP)

#### Source Description and Location

|   |  |
|---|--|
| <b>Source Name:</b>                     | <b>Unimin Corporation</b>                    |
| <b>Source Location:</b>                 | <b>137 Franklin Street, Aurora, IN 47001</b> |
| <b>County:</b>                          | <b>Dearborn</b>                              |
| <b>SIC Code:</b>                        | <b>3295</b>                                  |
| <b>Operation Permit No.:</b>            | <b>F 029-15387-00022</b>                     |
| <b>Operation Permit Issuance Date:</b>  | <b>October 9, 2007</b>                       |
| <b>Significant Permit Revision No.:</b> | <b>029-27310-00022</b>                       |
| <b>Permit Reviewer:</b>                 | <b>Jason R. Krawczyk</b>                     |

On December 30, 2008, the Office of Air Quality (OAQ) received an application from Unimin Corporation related to a modification to an existing stationary olivine processing facility.

#### Existing Approvals

The source was issued FESOP No. 029-15387-00022 on October 9, 2007. The source has since received the following approval:

- (a) First Administrative Amendment No.: F029-26657-00022, issued on June 25, 2008.

#### County Attainment Status

The source is located outside of Lawrenceburg Township in Dearborn County.

| Pollutant  | Designation   |
|--|---|
| SO <sub>2</sub>  | Cannot be classified.   |
| CO   | Unclassifiable or attainment effective November 15, 1990.   |
| O <sub>3</sub>   | Nonattainment Subpart 1 effective June 15, 2004, for the 8-hour ozone standard for the Cincinnati-Hamilton OH-KY-IN area, including Lawrenceburg Township of Dearborn County. The remainder of Dearborn County is unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard. <sup>1</sup> |
| PM <sub>10</sub>   | Unclassifiable effective November 15, 1990.   |
| NO <sub>2</sub>  | Cannot be classified or better than national standards.   |
| Pb   | Not designated.   |
| <sup>1</sup> Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.<br>Basic nonattainment designation effective federally April 5, 2005, for the Lawrenceburg Twp for PM <sub>2.5</sub> .<br>The remainder of Dearborn County is unclassifiable or attainment effective April 5, 2005, for PM <sub>2.5</sub> . |   |

- (a) Ozone Standards

Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Dearborn County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) **PM2.5**  
 Dearborn County has been classified as attainment for PM2.5 except Lawrenceburg Township. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM2.5 emissions, and the effective date of these rules was July 15<sup>th</sup>, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM10 emissions as a surrogate for PM2.5 emissions until 326 IAC 2-2 is revised.
- (c) **Other Criteria Pollutants**  
 Dearborn County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

**Fugitive Emissions**

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

**Status of the Existing Source**

The table below summarizes the potential to emit of the entire source, prior to the proposed revision, after consideration of all enforceable limits established in the effective permits:

| Process/<br>Emission Unit  | Potential To Emit of the Entire Source Prior to Revision (tons/year) |              |              |                 |                 |                  |             |             |                    |
|--|--|--------------|--------------|-----------------|-----------------|------------------|-------------|-------------|--------------------|
|  | PM   | PM10         | PM2.5        | SO <sub>2</sub> | NO <sub>x</sub> | VOC              | CO          | Total HAPs  | Worst Single HAP   |
| Drying Circuit (DC-01)   | 13.05  | 13.05        | 13.05        | negl.           | negl.           | negl.            | negl.       | negl.       | negl.              |
| Dryer Combustion Emissions   | 0.10   | 0.42         | 0.42         | 1.57            | 5.52            | 0.30             | 4.64        | 0.10        | 0.10 Hexane        |
| Screening and Storage Circuit (DC-02)  | 11.96  | 11.96        | 11.96        | negl.           | negl.           | negl.            | negl.       | negl.       | negl.              |
| Screening and Storage Circuit (DC-06)  | 5.43   | 5.43         | 5.43         | negl.           | negl.           | negl.            | negl.       | negl.       | negl.              |
| Sand Sizing Circuit (DC-03)  | 2.19   | 2.19         | 2.19         | negl.           | negl.           | negl.            | negl.       | negl.       | negl.              |
| Bagging and Bulk Loadout Circuit (DC-04)   | 1.62   | 1.62         | 1.62         | negl.           | negl.           | negl.            | negl.       | negl.       | negl.              |
| Fines Circuit (DC-05)  | 1.62   | 1.62         | 1.62         | negl.           | negl.           | negl.            | negl.       | negl.       | negl.              |
| Uncontrolled Emissions Units   | 20.46  | 2.66         | 2.66         | negl.           | negl.           | < 5.00           | negl.       | negl.       | negl.              |
| <b>Total PTE of Entire Source</b>  | <b>56.43</b>   | <b>38.95</b> | <b>38.95</b> | <b>1.57</b>     | <b>5.52</b>     | <b>&lt; 5.30</b> | <b>4.64</b> | <b>0.10</b> | <b>0.10 Hexane</b> |
| Title V Major Source Thresholds  | NA   | 100          | 100          | 100             | 100             | 100              | 100         | 25          | 10                 |
| PSD Major Source Thresholds  | 250  | 250          | 250          | 250             | 250             | 250              | 250         | NA          | NA                 |
| negl. = negligible<br>These emissions are based upon the calculations determined in FESOP 029-15387-00022 and the updated calculations found in the TSD Appendix A. Prior to this Revision, PM2.5 emissions had not been reviewed and are assumed to be equal to PM10. |  |              |              |                 |                 |                  |             |             |                    |

- (a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of

the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

- (b) This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the unlimited potential to emit HAPs are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

**Description of Proposed Revision**

The Office of Air Quality (OAQ) has reviewed an application, submitted by Unimin Corporation on December 30, 2008 relating a revision to their PM and PM10 lb/hr emission rates from baghouses DC-01 through DC-06, based on the results of the stack tests conducted between the dates of June 17, 2008 and June 20, 2008. The revision of the limits is also based on the most updated air modeling results.

Unimin has also requested that the descriptive actual cubic feet per minute (ACFM) flow rates from baghouses DC-01 through DC-06 be removed from the permit.

**Enforcement Issues**

There will be no enforcement actions related to this revision pending the permit revisions issuance.

**Emission Calculations**

See Appendix A of this TSD for detailed emission calculations.

**Permit Level Determination – FESOP Revision**

The following table is used to determine the appropriate permit level under 326 IAC 2-8.11.1. This table reflects the PTE before controls of the proposed revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

| Process/<br>Emission Unit                | PTE of Proposed Revision (tons/year) |        |         |                 |                 |      |      |            |                  |
|--|--------------------------------------|--------|---------|-----------------|-----------------|------|------|------------|------------------|
|  | PM                                   | PM10*  | PM2.5   | SO <sub>2</sub> | NO <sub>x</sub> | VOC  | CO   | Total HAPs | Worst Single HAP |
| Drying Circuit (DC-01)                   | (3.06)                               | (3.06) | (11.87) | 0.00            | 0.00            | 0.00 | 0.00 | 0.00       | 0.00             |
| Dryer Combustion Emissions**             | 0.00                                 | 0.00   | 0.00    | 0.00            | 0.00            | 0.00 | 0.00 | 0.00       | 0.00             |
| Screening and Storage Circuit (DC-02)    | (1.97)                               | (1.97) | (10.70) | 0.00            | 0.00            | 0.00 | 0.00 | 0.00       | 0.00             |
| Screening and Storage Circuit (DC-06)    | (2.58)                               | (2.58) | (5.34)  | 0.00            | 0.00            | 0.00 | 0.00 | 0.00       | 0.00             |
| Sand Sizing Circuit (DC-03)              | 4.51                                 | 4.51   | (2.15)  | 0.00            | 0.00            | 0.00 | 0.00 | 0.00       | 0.00             |
| Bagging and Bulk Loadout Circuit (DC-04) | 1.23                                 | 1.23   | (1.23)  | 0.00            | 0.00            | 0.00 | 0.00 | 0.00       | 0.00             |
| Fines Circuit (DC-05)                    | 1.88                                 | 1.88   | (1.53)  | 0.00            | 0.00            | 0.00 | 0.00 | 0.00       | 0.00             |
| Uncontrolled Emissions Units             | 0.00                                 | 0.00   | 0.00    | 0.00            | 0.00            | 0.00 | 0.00 | 0.00       | 0.00             |
| Total PTE of Proposed Revision           | 0.01                                 | 0.01   | (31.29) | 0.00            | 0.00            | 0.00 | 0.00 | 0.00       | 0.00             |

negl. = negligible  
Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".  
\*Parenthesis denote a negative number.  
\*\*No change in PTE has been recorded, however the PTE of the Dryer Combustion Emissions will be included within the Drying Circuit (DC-01) limitations.

This FESOP is being revised through a FESOP Significant Permit Revision pursuant to 326 IAC 2-8-11.1(g)(2) because it involves adjustment to the existing source-wide emissions limitations to maintain the FESOP status of the source (see PTE of the Entire Source After The Issuance of the FESOP Revision Section).

**PTE of the Entire Source After Issuance of the FESOP Revision**

The table below summarizes the potential to emit of the entire source reflecting adjustment of existing limits, with updated emissions shown as **bold** values and previous emissions shown as ~~strikethrough~~ values.

| Process/<br>Emission Unit   | Potential To Emit of the Entire Source to accommodate the Proposed Revision<br>(tons/year) |                                  |                                 |                 |                 |        |       |            |                  |
|---|--|----------------------------------|---------------------------------|-----------------|-----------------|--------|-------|------------|------------------|
|   | PM   | PM10                             | PM2.5                           | SO <sub>2</sub> | NO <sub>x</sub> | VOC    | CO    | Total HAPs | Worst Single HAP |
| Drying Circuit (DC-01)  | <del>13.05</del><br><b>9.99</b>  | <del>13.05</del><br><b>9.99</b>  | <del>13.05</del><br><b>1.18</b> | negl.           | negl.           | negl.  | negl. | negl.      | negl.            |
| Dryer Combustion Emissions**  | <del>0.40</del><br><b>0.00</b>   | <del>0.42</del><br><b>0.00</b>   | <del>0.42</del><br><b>0.00</b>  | 1.57            | 5.52            | 0.30   | 4.64  | 0.10       | 0.10 Hexane      |
| Screening and Storage Circuit (DC-02)   | <del>11.96</del><br><b>9.99</b>  | <del>11.96</del><br><b>9.99</b>  | <del>11.96</del><br><b>1.26</b> | negl.           | negl.           | negl.  | negl. | negl.      | negl.            |
| Screening and Storage Circuit (DC-06)   | <del>5.43</del><br><b>2.85</b>   | <del>5.43</del><br><b>2.85</b>   | <del>5.43</del><br><b>0.09</b>  | negl.           | negl.           | negl.  | negl. | negl.      | negl.            |
| Sand Sizing Circuit (DC-03)   | <del>2.19</del><br><b>6.70</b>   | <del>2.19</del><br><b>6.70</b>   | <del>2.19</del><br><b>0.04</b>  | negl.           | negl.           | negl.  | negl. | negl.      | negl.            |
| Bagging and Bulk Loadout Circuit (DC-04)  | <del>1.62</del><br><b>2.85</b>   | <del>1.62</del><br><b>2.85</b>   | <del>1.62</del><br><b>0.39</b>  | negl.           | negl.           | negl.  | negl. | negl.      | negl.            |
| Fines Circuit (DC-05)   | <del>1.62</del><br><b>3.50</b>   | <del>1.62</del><br><b>3.50</b>   | <del>1.62</del><br><b>0.09</b>  | negl.           | negl.           | negl.  | negl. | negl.      | negl.            |
| Uncontrolled Emissions Units  | 20.46  | 2.66                             | 0.54                            | negl.           | negl.           | < 5.00 | negl. | negl.      | negl.            |
| Total PTE of Entire Source  | <del>56.43</del><br><b>56.34</b>   | <del>38.95</del><br><b>38.54</b> | <del>36.83</del><br><b>3.59</b> | 1.57            | 5.52            | < 5.30 | 4.64  | 0.10       | 0.10 Hexane      |
| Title V Major Source Thresholds   | NA   | 100                              | 100                             | 100             | 100             | 100    | 100   | 25         | 10               |
| PSD Major Source Thresholds   | 250  | 250                              | 250                             | 250             | 250             | 250    | 250   | NA         | NA               |
| negl. = negligible<br>Assumed: PM10 = PM2.5<br>* Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".<br>**Particulate PTE from Dryer Combustion is included in the Drying Circuit limitations and therefore not counted in Total PTE. |  |                                  |                                 |                 |                 |        |       |            |                  |

The table below summarizes the potential to emit of the entire source after issuance of this revision, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this FESOP permit revision, and only to the extent that the effect of the control equipment is made practically enforceable in the permit. (Note: The table below was generated from the above table, with bold text un-bolded and strikethrough text deleted.)

| Process/<br>Emission Unit   | Potential To Emit of the Entire Source After Issuance of Revision (tons/year) |              |             |                 |             |                  |             |             |                    |
|---|---|--------------|-------------|-----------------|-------------|------------------|-------------|-------------|--------------------|
|   | PM  | PM10         | PM2.5       | SO <sub>2</sub> | NOx         | VOC              | CO          | Total HAPs  | Worst Single HAP   |
| Drying Circuit (DC-01)  | 9.99  | 9.99         | 1.18        | negl.           | negl.       | negl.            | negl.       | negl.       | negl.              |
| Dryer Combustion Emissions*   | -   | -            | -           | 1.57            | 5.52        | 0.30             | 4.64        | 0.10        | 0.10 Hexane        |
| Screening and Storage Circuit (DC-02)   | 9.99  | 9.99         | 1.26        | negl.           | negl.       | negl.            | negl.       | negl.       | negl.              |
| Screening and Storage Circuit (DC-06)   | 2.85  | 2.85         | 0.09        | negl.           | negl.       | negl.            | negl.       | negl.       | negl.              |
| Sand Sizing Circuit (DC-03)   | 6.70  | 6.70         | 0.04        | negl.           | negl.       | negl.            | negl.       | negl.       | negl.              |
| Bagging and Bulk Loadout Circuit (DC-04)  | 2.85  | 2.85         | 0.39        | negl.           | negl.       | negl.            | negl.       | negl.       | negl.              |
| Fines Circuit (DC-05)   | 3.50  | 3.50         | 0.09        | negl.           | negl.       | negl.            | negl.       | negl.       | negl.              |
| Uncontrolled Emissions Units  | 20.46   | 2.66         | 0.54        | negl.           | negl.       | < 5.00           | negl.       | negl.       | negl.              |
| <b>Total PTE of Entire Source</b>   | <b>56.34</b>  | <b>38.54</b> | <b>3.59</b> | <b>1.57</b>     | <b>5.52</b> | <b>&lt; 5.30</b> | <b>4.64</b> | <b>0.10</b> | <b>0.10 Hexane</b> |
| Title V Major Source Thresholds   | NA  | 100          | 100         | 100             | 100         | 100              | 100         | 25          | 10                 |
| PSD Major Source Thresholds   | 250   | 250          | 250         | 250             | 250         | 250              | 250         | NA          | NA                 |
| negl. = negligible<br>* Particulate PTE from Dryer Combustion is included in the Drying Circuit limitations and therefore not counted in Total PTE. |   |              |             |                 |             |                  |             |             |                    |

- (a) **FESOP Status**  
This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP).

**Federal Rule Applicability Determination**

New Source Performance Standards (NSPS)

- (a) There are no New Source Performance Standards (NSPS)(40 CFR Part 60) included for this proposed revision.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included for this proposed revision.

Compliance Assurance Monitoring (CAM)

- (c) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the potential to emit of the source is limited to less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

### State Rule Applicability Determination

The following state rules are applicable to the proposed revision:

- (a) 326 IAC 2-8-4 (FESOP)  
This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP). See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))  
This modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (c) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))  
The proposed revision is not subject to the requirements of 326 IAC 2-4.1, since the unlimited potential to emit of HAPs from the modified units is less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs.
- (d) 326 IAC 2-6 (Emission Reporting)  
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (e) 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:
  - (1) 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.
  - (2) 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.
- (f) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)  
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source 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.
- (g) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)  
The source will continue to be subject to the requirements of 326 IAC 6-5, because potential fugitive particulate emissions are still greater than 25 tons per year. Pursuant to 326 IAC 6-5, fugitive particulate matter emissions shall be controlled according to the Fugitive Dust Control Plan, which is included as Attachment A to the permit.

The source shall continue to comply with the existing applicable state rules that are contained in FESOP No 029-15387-00022.

### Compliance Determination, Monitoring and Testing Requirements

The existing compliance requirements will not change as a result of this revision. The source shall continue to comply with the applicable requirements and permit conditions as contained in FESOP No: 029-15387-00022, issued on October 9, 2007.

### Air Quality Impacts from Minor Sources

#### Modeling Overview

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

#### Modeling Results

The modeling results indicate that the Limited PTE criteria pollutants from this significant revision will not exceed the National Ambient Air Quality Standards (NAAQS). (See attached Air Quality Analyses, Appendices B and C)

### Proposed Changes

- (a) The following changes listed below are due to the proposed revision. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

...

#### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

- (a) One (1) drying circuit constructed in 1988 and consisting of the following units:

...

These units are controlled by one (1) baghouse, identified as DC-01. DC-01 has a grain loading of 0.0166 grains/actual standard cubic feet, ~~an air flow rate of 9,500 actual cubic feet per minute,~~ and an actual collection efficiency of 99%.

- (b) One (1) screening and intermediate storage circuit constructed in 1988 and consisting of the following units:

...

BN-10 and BC-05 are controlled by dust collector DC-06. DC-06 has an outlet grain loading of 0.02 grains per dry standard cubic foot ~~and an air flow rate of 1,500 cubic feet per minute.~~ All other units are controlled by baghouse DC-02, which has a grain loading of 0.0137 grains/actual standard cubic feet, ~~an air flow rate of 9,700 actual cubic feet per minute,~~ and an actual collection efficiency of 99%.

- (c) One (1) sand sizing circuit constructed in 1988 and consisting of the following units:

...

These units are controlled by one (1) baghouse, identified as DC-03. DC-03 has ~~an air flow rate of 3,500 actual cubic feet per minute,~~ and an actual collection efficiency of 99%.

- (d) One (1) bagging and bulk loadout process constructed in 1988 and consisting of the following units:

...

These units are controlled by one (1) baghouse, identified as DC-04. DC-04 has ~~an air flow rate of 1,200 actual cubic feet per minute,~~ and an actual collection efficiency of 99%.

- (e) One (1) fines circuit constructed in 1988 and consisting of the following units:

...

These units are controlled by one (1) baghouse, identified as DC-05. DC-05 has an air flow rate of 750 actual cubic feet per minute, and an actual collection efficiency of 99%.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

**Facility Description [326 IAC 2-8-4(10)]:**

- (a) One (1) drying circuit constructed in 1988 and consisting of the following units:

...

These units are controlled by one (1) baghouse, identified as DC-01. DC-01 has a grain loading of 0.0166 grains/actual standard cubic feet, an air flow rate of 9,500 actual cubic feet per minute, and an actual collection efficiency of 99%.

- (b) One (1) screening and intermediate storage circuit constructed in 1988 and consisting of the following units:

...

BN-10 and BC-05 are controlled by dust collector DC-06. DC-06 has an outlet grain loading of 0.02 grains per dry standard cubic foot and an air flow rate of 1,500 cubic feet per minute. All other units are controlled by baghouse DC-02, which has a grain loading of 0.0137 grains/actual standard cubic feet, an air flow rate of 9,700 actual cubic feet per minute, and an actual collection efficiency of 99%.

- (c) One (1) sand sizing circuit constructed in 1988 and consisting of the following units:

...

These units are controlled by one (1) baghouse, identified as DC-03. DC-03 has an air flow rate of 3,500 actual cubic feet per minute, and an actual collection efficiency of 99%.

- (d) One (1) bagging and bulk loadout process constructed in 1988 and consisting of the following units:

...

These units are controlled by one (1) baghouse, identified as DC-04. DC-04 has an air flow rate of 1,200 actual cubic feet per minute, and an actual collection efficiency of 99%.

- (e) One (1) fines circuit constructed in 1988 and consisting of the following units:

...

These units are controlled by one (1) baghouse, identified as DC-05. DC-05 has an air flow rate of 750 actual cubic feet per minute, and an actual collection efficiency of 99%.

...

(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 2-8-4(1)]

D.1.1 PSD Minor Limits for PM [326 IAC 2-2] [326 IAC 2-1.1-5]

**Pursuant to 326 IAC 2-1.1-5 (Air Quality Requirements), and** in order to render the requirements of 326 IAC 2-2 not applicable, the emissions of PM shall be limited as follows:

| Facility                                   | Baghouse | PM Emission Limit (lbs/hour) |
|--|----------|------------------------------|
| Drying Circuit                             | DC-01    | <del>2.98</del> <b>2.28</b>  |
| Screening and Intermediate Storage Circuit | DC-02    | <del>2.73</del> <b>2.28</b>  |
|  | DC-06    | <del>1.24</del> <b>0.65</b>  |
| Sand Sizing Circuit                        | DC-03    | <del>0.50</del> <b>1.53</b>  |
| Bagging and Bulk Loadout                   | DC-04    | <del>0.37</del> <b>0.65</b>  |

|               |       |                             |
|---------------|-------|-----------------------------|
| Fines Circuit | DC-05 | <del>0.37</del> <b>0.80</b> |
|---------------|-------|-----------------------------|

Compliance with these limitations ensures that the PM emissions from the entire source shall not exceed 250 tons per twelve (12) consecutive month period and makes the source minor for 326 IAC 2-2 (Prevention of Significant Deterioration).

**D.1.2 FESOP Limits for PM10 and PM2.5 [326 IAC 2-8] [326 IAC 2-1.1-5]**

Pursuant to **326 IAC 2-1.1-5 (Air Quality Requirements)**, and 326 IAC 2-8-4, the emissions of PM-10 and **PM2.5** shall be limited as follows:

| Facility                                   | Baghouse | PM10 Emission Limit (lbs/hour) | PM2.5 Emission Limit (lbs/hour) |
|--|----------|--------------------------------|---------------------------------|
| Drying Circuit                             | DC-01    | <del>2.98</del> <b>2.28</b>    | <b>0.27</b>                     |
| Screening and Intermediate Storage Circuit | DC-02    | <del>2.73</del> <b>2.28</b>    | <b>0.29</b>                     |
|  | DC-06    | <del>4.24</del> <b>0.65</b>    | <b>0.02</b>                     |
| Sand Sizing Circuit                        | DC-03    | <del>0.50</del> <b>1.53</b>    | <b>0.01</b>                     |
| Bagging and Bulk Loadout                   | DC-04    | <del>0.37</del> <b>0.65</b>    | <b>0.09</b>                     |
| Fines Circuit                              | DC-05    | <del>0.37</del> <b>0.80</b>    | <b>0.02</b>                     |

Compliance with these limitations ensures that the PM10 and **PM2.5** emissions from the entire source do not exceed 100 tons per twelve (12) consecutive month period and makes 326 IAC 2-7 (Part 70 Permit Program) and **326 IAC 2-2 (PSD)** not applicable.

...

**D.1.6 Testing Requirements [326 IAC 2-1.1-11]**

~~Within 180 days of issuance of this permit, the Permittee shall perform PM and PM10 testing of the baghouses controlling emissions from the drying circuit, screening and intermediate storage circuit, sand sizing circuit, bagging and bulk loadout, and fines circuit using methods approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. PM10 includes filterable and condensable PM10. Testing shall be conducted in accordance with Section C - Performance Testing.~~

**In order to demonstrate compliance with Conditions D.1.1 and D.1.2, the Permittee shall perform testing according the following:**

- (a) PM, PM10, and PM2.5 testing for the drying circuit, screening and intermediate storage circuit, sand sizing circuit, bagging and bulk loadout, and fines circuit, utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 and PM2.5 includes filterable and condensible PM.**

...

PM2.5 testing requirements were not included with FESOP 029-15387-00022. Since the issuance of the original FESOP, IDEM has begun including a requirement to test for PM2.5 within 180 days of publication of the new or revised condensible PM test method(s) referenced in the U.S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008. Unimin Corporation performed PM and PM10 compliance testing between the dates of June 17 and June 20, 2008. IDEM is requiring the initial PM2.5 testing to be performed concurrently with the same frequency and testing cycle as PM and PM10, which is to be performed within five (5) years of the date of the most recent valid compliance demonstration and repeated once, every subsequent five (5) years.

- (b) Upon further review, IDEM, OAQ has decided to make the following changes to the permit. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:**

- (1) IDEM, OAQ has decided to remove the information regarding the Authorized Individual from Section A.1 of the permit.
- (2) Several of IDEM's Branches and sections have been renamed. Therefore, IDEM has updated the addresses listed in the permit. References to Permit Administration and Development Section and the Permits Branch have been changed to Permit Administration and Support Section. References to Asbestos Section, Compliance Data Section, Air Compliance Section, and Compliance Branch have been changed to Compliance and Enforcement Branch.

### Conclusion and Recommendation

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 30, 2008.

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed FESOP Significant Revision No. 029-27310-00022. The staff recommends to the Commissioner that this FESOP Significant Revision be approved.

### IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Jason R. Krawczyk at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 232-8427 or toll free at 1-800-451-6027 extension 2-8427.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.idem.in.gov](http://www.idem.in.gov)

**Appendix A: Emission Calculations  
Summary Table**

**Company Name:** Unimin Corporation  
**Address City IN Zip:** 137 Franklin Street, Aurora, Indiana 47001  
**Permit Number:** 029-27310-00022  
**Plt ID:** 029-00022  
**Reviewer:** Jason R. Krawczyk  
**Date:** February 25, 2009

**Potential Emissions in Tons/Year**

|                                  | PM            | PM10          | PM2.5        | SO <sub>2</sub> | NO <sub>x</sub> | VOC         | CO          | HAPS        |
|----------------------------------|---------------|---------------|--------------|-----------------|-----------------|-------------|-------------|-------------|
| Dryer Combustion*                | 0.10          | 0.42          | 0.42         | 1.57            | 5.52            | 0.30        | 4.64        | 0.10        |
| Drying Circuit                   | 175.28        | 175.23        | 35.43        | -               | -               | -           | -           | -           |
| Screening and Storage Circuit    | 58.05         | 14.06         | 2.84         | -               | -               | -           | -           | -           |
| Bagging and Bulk Loadout Circuit | 57.94         | 10.67         | 2.16         | -               | -               | -           | -           | -           |
| Fines Circuit                    | 0.88          | 0.11          | 0.02         | -               | -               | -           | -           | -           |
| Sand Sizing Circuit              | 1.60          | 0.24          | 0.05         | -               | -               | -           | -           | -           |
| Uncontrolled Emission Units      | 20.46         | 2.66          | 0.54         | -               | -               | -           | -           | -           |
| <b>Total</b>                     | <b>314.31</b> | <b>203.39</b> | <b>41.46</b> | <b>1.57</b>     | <b>5.52</b>     | <b>0.30</b> | <b>4.64</b> | <b>0.10</b> |

**Notes:**

Assume PM2.5 = 20.22% PM10 based on Sedigraph particle size analysis performed in 2002 by source for internal reference.

\* Assume PM2.5 = PM10

**Controlled Emissions in Tons/Year**

|                                  | PM           | PM10        | PM2.5       | SO <sub>2</sub> | NO <sub>x</sub> | VOC         | CO          | HAPS        |
|----------------------------------|--------------|-------------|-------------|-----------------|-----------------|-------------|-------------|-------------|
| Dryer Combustion*                | 0.10         | 0.42        | 0.42        | 1.57            | 5.52            | 0.30        | 4.64        | 0.10        |
| Drying Circuit                   | 1.83         | 1.79        | 0.36        | -               | -               | -           | -           | -           |
| Screening and Storage Circuit    | 0.58         | 0.14        | 0.03        | -               | -               | -           | -           | -           |
| Bagging and Bulk Loadout Circuit | 0.58         | 0.11        | 0.02        | -               | -               | -           | -           | -           |
| Fines Circuit                    | 0.01         | 0.00        | 0.00        | -               | -               | -           | -           | -           |
| Sand Sizing Circuit              | 0.02         | 0.00        | 0.00        | -               | -               | -           | -           | -           |
| Uncontrolled Emission Units      | 20.46        | 2.66        | 0.54        | -               | -               | -           | -           | -           |
| <b>Total</b>                     | <b>23.48</b> | <b>5.12</b> | <b>1.37</b> | <b>1.57</b>     | <b>5.52</b>     | <b>0.30</b> | <b>4.64</b> | <b>0.10</b> |

**Notes:**

Assume PM2.5 = 20.22% PM10 based on Sedigraph particle size analysis performed in 2002 by source for internal reference.

\* Assume PM2.5 = PM10

**Limited PTE in Tons/Year**

|  | PM           | PM10         | PM2.5       | SO <sub>2</sub> | NO <sub>x</sub> | VOC         | CO          | HAPS        |
|--|--------------|--------------|-------------|-----------------|-----------------|-------------|-------------|-------------|
| Dryer Combustion*                        | -            | -            | -           | 1.57            | 5.52            | 0.30        | 4.64        | 0.10        |
| Drying Circuit (DC-01)                   | 9.99         | 9.99         | 1.18        | -               | -               | -           | -           | -           |
| Screening and Storage Circuit (DC-02)    | 9.99         | 9.99         | 1.26        | -               | -               | -           | -           | -           |
| Screening and Storage Circuit (DC-06)    | 2.85         | 2.85         | 0.09        | -               | -               | -           | -           | -           |
| Bagging and Bulk Loadout Circuit (DC-04) | 2.85         | 2.85         | 0.39        | -               | -               | -           | -           | -           |
| Fines Circuit (DC-05)                    | 3.50         | 3.50         | 0.09        | -               | -               | -           | -           | -           |
| Sand Sizing Circuit (DC-03)              | 6.70         | 6.70         | 0.04        | -               | -               | -           | -           | -           |
| Uncontrolled Emission Units              | 20.46        | 2.66         | 0.54        | -               | -               | -           | -           | -           |
| <b>Total</b>                             | <b>56.34</b> | <b>38.54</b> | <b>3.59</b> | <b>1.57</b>     | <b>5.52</b>     | <b>0.30</b> | <b>4.64</b> | <b>0.10</b> |

**Notes:**

\* Particulate PTE from Dryer Combustion is included in the Drying Circuit limitations and therefore not counted separately for Total PTE.

Limited emissions based on emission limits included in the FESOP.

Uncontrolled Emissions assume PM2.5 = 20.22% PM10 based on Sedigraph particle size analysis performed in 2002.

**Appendix A: Emissions Calculations  
Natural Gas Combustion Only  
Rotary Dryer**

**Company Name:** Unimin Corporation  
**Address City IN Zip:** 137 Franklin Street, Aurora, Indiana 47001  
**Permit Number:** 029-27310-00022  
**Pit ID:** 029-00022  
**Reviewer:** Jason R. Krawczyk  
**Date:** February 25, 2009

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

12.6

110.4

| Emission Factor in lb/MMCF    | Pollutant |       |      |             |      |      |
|-------------------------------|-----------|-------|------|-------------|------|------|
|                               | PM*       | PM10* | SO2  | NOx         | VOC  | CO   |
|                               | 1.9       | 7.6   | 28.5 | 100         | 5.5  | 84   |
|                               |           |       |      | **see below |      |      |
| Potential Emission in tons/yr | 0.10      | 0.42  | 1.57 | 5.52        | 0.30 | 4.64 |

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

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

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

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

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

See page 3 for HAPs emissions calculations.

**Appendix A: Emissions Calculations  
Natural Gas Combustion Only  
Rotary Dryer  
HAPs Emissions**

**Company Name:** Unimin Corporation  
**Address City IN Zip:** 137 Franklin Street, Aurora, Indiana 47001  
**Permit Number:** 029-27310-00022  
**Pit ID:** 029-00022  
**Reviewer:** Jason R. Krawczyk  
**Date:** February 25, 2009

| HAPs - Organics               |                    |                            |                         |                   |                    |
|-------------------------------|--------------------|----------------------------|-------------------------|-------------------|--------------------|
| Emission Factor in lb/MMcf    | Benzene<br>2.1E-03 | Dichlorobenzene<br>1.2E-03 | Formaldehyde<br>7.5E-02 | Hexane<br>1.8E+00 | Toluene<br>3.4E-03 |
| Potential Emission in tons/yr | 1.159E-04          | 6.623E-05                  | 4.139E-03               | 9.934E-02         | 1.876E-04          |

| HAPs - Metals                 |                 |                    |                     |                      |                   |
|-------------------------------|-----------------|--------------------|---------------------|----------------------|-------------------|
| Emission Factor in lb/MMcf    | Lead<br>5.0E-04 | Cadmium<br>1.1E-03 | Chromium<br>1.4E-03 | Manganese<br>3.8E-04 | Nickel<br>2.1E-03 |
| Potential Emission in tons/yr | 2.759E-05       | 6.071E-05          | 7.726E-05           | 2.097E-05            | 1.159E-04         |

Methodology is the same as page 2.

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

**Appendix A: Emission Calculations  
Dryer Circuit**

**Company Name:** Unimin Corporation  
**Address City IN Zip:** 137 Franklin Street, Aurora, Indiana 47001  
**Permit Number:** 029-27310-00022  
**Plt ID:** 029-00022  
**Reviewer:** Jason R. Krawczyk  
**Date:** February 25, 2009

| Process Unit                             | Maximum Capacity (tons/hr) | PM Emission Factor (lb/ton) | PM-10 Emission Factor (lb/ton) | PTE PM (tons/yr) | Controlled PM Emissions* (tons/yr) | PTE PM-10 (tons/yr) | Controlled PM-10 Emissions* (tons/yr) |
|--|----------------------------|-----------------------------|--------------------------------|------------------|------------------------------------|---------------------|---------------------------------------|
| <b>DR-01</b> Rotary Dryer**              | 20.00                      | 2.00                        | 2.00                           | 175.20           | 1.75                               | 175.20              | 1.75                                  |
| <b>BC-09 (inactive)</b> DD-01 Discharge* | 3                          | 0.003                       | 0.0011                         | 0.04             | 0.04                               | 0.01                | 0.02                                  |
| <b>DD-01(inactive)</b> De-duster drum*   | 3                          | 0.003                       | 0.0011                         | 0.04             | 0.04                               | 0.01                | 0.02                                  |
| <b>Total</b>                             |                            |                             |                                | 175.28           | 1.83                               | 175.23              | 1.79                                  |

**Note:**  
 \* The rotary dryer is equipped with a baghouse for particulate emissions, which has a control efficiency of 99%.

AP-42 Emission Factor References  
 \* - Conveyor Transfer Point, Table 11.19.2-2 (8/04)  
 \*\* - Sand Dryer, Table 11.19.1-1 (11/95)

**Methodology**  
 PTE PM/PM-10 (tons/yr) = Maximum Capacity (tons/hr) \* Emission Factor (lb/ton) \* 8760 hrs/yr \* 1 ton/2000 lbs  
 Controlled PM/PM-10 Emissions (tons/yr) = Uncontrolled PTE PM/PM-10 (tons/yr) \* (1-Control Efficiency %)

Appendix A: Emission Calculations  
 Screening and Intermediate Storage Circuit

**Company Name:** Unimin Corporation  
**Address City IN Zip:** 137 Franklin Street, Aurora, Indiana 47001  
**Permit Number:** 029-27310-00022  
**Plt ID:** 029-00022  
**Reviewer:** Jason R. Krawczyk  
**Date:** February 25, 2009

| Process Unit   | Maximum Capacity (tons/hr) | PM Emission Factor (lb/ton) | PM-10 Emission Factor (lb/ton) | PTE PM (tons/yr) | PTE PM-10 (tons/yr) |
|--|----------------------------|-----------------------------|--------------------------------|------------------|---------------------|
| <b>BC-02</b><br>Dryer Discharge Conveyor <sup>a</sup>          | 20                         | 0.003                       | 0.0011                         | 0.26             | 0.10                |
| <b>BC-03</b><br>CR-01 Discharge Conveyor <sup>a</sup>          | 20                         | 0.003                       | 0.0011                         | 0.26             | 0.10                |
| <b>BC-04</b><br>BC-11 Discharge Conveyor <sup>a</sup>          | 10                         | 0.003                       | 0.0011                         | 0.13             | 0.05                |
| <b>BC-05</b><br>Belt Conveyor <sup>a</sup>                     | 15                         | 0.003                       | 0.0011                         | 0.20             | 0.07                |
| <b>BC-06</b><br>BN-10 Discharge Conveyor <sup>a</sup>          | 20                         | 0.003                       | 0.0011                         | 0.26             | 0.10                |
| <b>BC-11</b><br>Belt Conveyor <sup>a</sup>                     | 10                         | 0.003                       | 0.0011                         | 0.13             | 0.05                |
| <b>BE-01</b><br>Elevator Feed to VS-01, -02 <sup>a</sup>       | 20                         | 0.003                       | 0.0011                         | 0.26             | 0.10                |
| <b>BE-03</b><br>Elevator Feed to Fractionator <sup>a</sup>     | 15                         | 0.003                       | 0.0011                         | 0.20             | 0.07                |
| <b>BE-04</b><br>BA-03 Feed Conveyor <sup>a</sup>               | 5                          | 0.003                       | 0.0011                         | 0.07             | 0.02                |
| <b>BE-07 (inactive)</b><br>Elevator Feed to BC-04 <sup>a</sup> | 60                         | 0.003                       | 0.0011                         | 0.79             | 0.29                |
| <b>BN-10</b><br>-16 Storage Bin <sup>b</sup>                   | 13                         | 0.02                        | 0.0024                         | 1.14             | 0.14                |
| <b>BN-11</b><br>3x20 Storage Bin <sup>b</sup>                  | 10                         | 0.02                        | 0.0024                         | 0.88             | 0.11                |
| <b>VS-01</b><br>Vibratory Screen <sup>c</sup>                  | 20                         | 0.30                        | 0.072                          | 26.28            | 6.31                |
| <b>VS-02</b><br>Vibratory Screen <sup>c</sup>                  | 20                         | 0.30                        | 0.072                          | 26.28            | 6.31                |
| <b>CR-01</b><br>Oversize Crusher <sup>d</sup>                  | 20                         | 0.0054                      | 0.0024                         | 0.47             | 0.21                |
| <b>BA-05</b><br>Coarse Paper Bagging <sup>b</sup>              | 5                          | 0.02                        | 0.0024                         | 0.44             | 0.05                |
| <b>Total</b>   |                            |                             |                                | <b>58.05</b>     | <b>14.06</b>        |

**Notes:**

AP-42 Emission Factor References:

- a - Conveyor Transfer Point, Table 11.19.2-2 (8/04)
- b - Bulk Loading (SCC 3-05-025-06), Fire Version 6.25
- c - Fines Screening, Table 11.19.2-2 (8/04)
- d - Tertiary Crushing, Table 11.19.2-2 (8/04)

**Methodology:**

PTE PM/PM-10 (tons/yr) = Maximum Capacity (tons/hr) \* Emission Factor (lb/ton) \* 8760 hrs/yr \* 1 ton/2000 lbs

Appendix A: Emission Calculations  
Sand Sizing Circuit

**Company Name:** Unimin Corporation  
**Address City IN Zip:** 137 Franklin Street, Aurora, Indiana 47001  
**Permit Number:** 029-27310-00022  
**Pit ID:** 029-00022  
**Reviewer:** Jason R. Krawczyk  
**Date:** February 25, 2009

| Process Unit                                       | Maximum Capacity (tons/hr) | PM Emission Factor (lb/ton) | PM-10 Emission Factor (lb/ton) | PTE PM (tons/yr) | PTE PM-10 (tons/yr) |
|--|----------------------------|-----------------------------|--------------------------------|------------------|---------------------|
| <b>BE-02</b><br>Elevator Feed to Kice <sup>a</sup> | 15                         | 0.003                       | 0.0011                         | 0.20             | 0.07                |
| <b>BN-08</b><br>DC-03 Storage Bin <sup>b</sup>     | 11                         | 0.02                        | 0.0024                         | 0.96             | 0.12                |
| <b>BN-12</b><br>DC-03 Drop Out Bin <sup>b</sup>    | 5                          | 0.02                        | 0.0024                         | 0.44             | 0.05                |
| <b>Total</b>                                       |                            |                             |                                | 1.60             | 0.24                |

**Notes:**

AP-42 Emission Factor References:

a - Conveyor Transfer Point, Table 11.19.2-2 (8/04)

b - Bulk Loading (SCC 3-05-025-06), Fire Version 6.25

**Methodology:**

PTE PM/PM-10 (tons/yr) = Maximum Capacity (tons/hr) \* Emission Factor (lb/ton) \* 8760 hrs/yr \* 1 ton/2000 lbs

**Appendix A: Emission Calculations  
Bagging and Bulk Loadout Process**

**Company Name:** Unimin Corporation  
**Address City IN Zip:** 137 Franklin Street, Aurora, Indiana 47001  
**Permit Number:** 029-27310-00022  
**Plt ID:** 029-00022  
**Reviewer:** Jason R. Krawczyk  
**Date:** February 25, 2009

| Process Unit   | Maximum Capacity (tons/hr) | PM Emission Factor (lb/ton) | PM-10 Emission Factor (lb/ton) | PTE PM (tons/yr) | PTE PM-10 (tons/yr) |
|--|----------------------------|-----------------------------|--------------------------------|------------------|---------------------|
| <b>BC-07</b><br>Feed to BE-05 Conveyor <sup>a</sup>      | 60                         | 0.003                       | 0.0011                         | 0.79             | 0.29                |
| <b>BC-08</b><br>Feed to Bag Bins <sup>a</sup>            | 30                         | 0.003                       | 0.0011                         | 0.39             | 0.14                |
| <b>BC-12</b><br>Feed to VS-05 <sup>a</sup>               | 10                         | 0.003                       | 0.0011                         | 0.13             | 0.05                |
| <b>BC-13</b><br>Feed to Bagging or BE-07 <sup>a</sup>    | 20                         | 0.003                       | 0.0011                         | 0.26             | 0.10                |
| <b>BE-05</b><br>Elevator Feed to Loadout <sup>a</sup>    | 60                         | 0.003                       | 0.0011                         | 0.79             | 0.29                |
| <b>BE-06 (inactive)</b><br>De-dust Elevator <sup>a</sup> | 3                          | 0.003                       | 0.0011                         | 0.04             | 0.01                |
| <b>BE-08</b><br>Elevator Feed to BN-15 <sup>a</sup>      | 40                         | 0.003                       | 0.0011                         | 0.53             | 0.19                |
| <b>BN-01</b><br>4x10 Storage Bin <sup>b</sup>            | 10                         | 0.02                        | 0.0024                         | 0.88             | 0.11                |
| <b>BN-02</b><br>70 Storage Bin <sup>b</sup>              | 11                         | 0.02                        | 0.0024                         | 0.96             | 0.12                |
| <b>BN-03</b><br>10x8 Storage Bin <sup>b</sup>            | 5                          | 0.02                        | 0.0024                         | 0.44             | 0.05                |
| <b>BN-04</b><br>Free Storage Bin <sup>b</sup>            | 11                         | 0.02                        | 0.0024                         | 0.96             | 0.12                |
| <b>BN-05</b><br>30 Storage Bin <sup>b</sup>              | 11                         | 0.02                        | 0.0024                         | 0.96             | 0.12                |
| <b>BN-06</b><br>120 Storage Bin <sup>b</sup>             | 11                         | 0.02                        | 0.0024                         | 0.96             | 0.12                |
| <b>BN-07</b><br>200 DC-01 Discharge Bin <sup>b</sup>     | 1                          | 0.02                        | 0.0024                         | 0.09             | 0.01                |
| <b>BN-14</b><br>Bulk Loadout Bin <sup>b</sup>            | 60                         | 0.02                        | 0.0024                         | 5.26             | 0.63                |
| <b>BN-15</b><br>Bulk Bin from BE-09                      | 40                         | 0.02                        | 0.0024                         | 3.50             | 0.42                |
| <b>BN-16</b><br>Bulk Bin from BE-05 <sup>b</sup>         | 40                         | 0.02                        | 0.0024                         | 3.50             | 0.42                |
| <b>SB-01</b><br>BA-02 Bagger Bin <sup>b</sup>            | 30                         | 0.02                        | 0.0024                         | 2.63             | 0.32                |
| <b>SB-02</b><br>BA-02 Bagger Bin <sup>b</sup>            | 30                         | 0.02                        | 0.0024                         | 2.63             | 0.32                |
| <b>LS-01</b><br>Truck Loadout <sup>b</sup>               | 60                         | 0.02                        | 0.0024                         | 5.26             | 0.63                |
| <b>LS-03</b><br>Flour Truck Loadout <sup>b</sup>         | 5                          | 0.02                        | 0.0024                         | 0.44             | 0.05                |
| <b>BA-01/BA-11</b><br>Paper Bags/Sack from SB-           | 9                          | 0.02                        | 0.0024                         | 0.79             | 0.09                |
| <b>BA-02</b><br>Paper Bagger from SB-02 <sup>b</sup>     | 9                          | 0.02                        | 0.0024                         | 0.79             | 0.09                |
| <b>VS-04</b><br>Vibratory Screen <sup>c</sup>            | 9                          | 0.30                        | 0.072                          | 11.8             | 2.84                |
| <b>VS-05</b><br>Vibratory Screen <sup>c</sup>            | 10                         | 0.30                        | 0.072                          | 13.14            | 3.15                |
| <b>Total</b>   |                            |                             |                                | 57.94            | 10.67               |

**Notes:**

AP-42 Emission Factor References:

- a - Conveyor Transfer Point, Table 11.19.2-2 (8/04)
- b - Bulk Loading (SCC 3-05-025-06), Fire Version 6.25
- c - Fines Screening, Table 11.19.2-2 (8/04)

**Methodology**

PTE PM/PM-10 (tons/yr) = Maximum Capacity (tons/hr) \* Emission Factor (lb/ton) \* 8760 hrs/yr \* 1 ton/2000 lbs

**Appendix A: Emission Calculations  
Fines Circuit**

**Company Name:** Unimin Corporation  
**Address City IN Zip:** 137 Franklin Street, Aurora, Indiana 47001  
**Permit Number:** 029-27310-00022  
**Plt ID:** 029-00022  
**Reviewer:** Jason R. Krawczyk  
**Date:** February 25, 2009

| Process Unit                                  | Maximum Capacity<br>(tons/hr) | PM Emission<br>Factor (lb/ton) | PM-10 Emission<br>Factor (lb/ton) | PTE PM<br>(tons/yr) | PTE PM-10<br>(tons/yr) |
|---|-------------------------------|--------------------------------|-----------------------------------|---------------------|------------------------|
| <b>BN-13</b><br>Feed to BA-05 Bulk<br>Bagging | 5                             | 0.02                           | 0.0024                            | 0.44                | 0.05                   |
| <b>BA-03/BA-13</b><br>#200 Flour Paper/Sack   | 5                             | 0.02                           | 0.0024                            | 0.44                | 0.05                   |
| <b>Total</b>                                  |                               |                                |                                   | 0.88                | 0.11                   |

**Note:**

AP-42 Emission Factor Reference:  
Bulk Loading (SCC 3-05-025-06), Fire Version 6.25

**Methodology**

PTE PM/PM-10 (tons/yr) = Maximum Capacity (tons/hr) \* Emission Factor (lb/ton) \* 8760 hrs/yr \* 1 ton/2000 lbs

**Appendix A: Emission Calculations  
Uncontrolled Emission Units**

**Company Name:** Unimin Corporation  
**Address City IN Zip:** 137 Franklin Street, Aurora, Indiana 47001  
**Permit Number:** 029-27310-00022  
**Plt ID:** 029-00022  
**Reviewer:** Jason R. Krawczyk  
**Date:** February 25, 2009

| Process Unit   | Maximum Capacity (tons/hr) | PM Emission Factor (lb/ton) | PM-10 Emission Factor (lb/ton) | PTE PM (tons/yr) | PTE PM-10 (tons/yr) |
|--|----------------------------|-----------------------------|--------------------------------|------------------|---------------------|
| <b>HO-01</b><br>Plant Feed Hopper <sup>a</sup>               | 20                         | 0.003                       | 0.0011                         | 0.26             | 0.10                |
| <b>HO-02</b><br>DC-02 Waste Tote <sup>a</sup>                | 1                          | 0.003                       | 0.0011                         | 0.01             | 0.00                |
| <b>HO-03</b><br>DC-02 Waste Tote <sup>a</sup>                | 1                          | 0.003                       | 0.0011                         | 0.01             | 0.00                |
| <b>HO-04</b><br>VS o/s Waste Tote <sup>a</sup>               | 1                          | 0.003                       | 0.0011                         | 0.01             | 0.00                |
| <b>HO-05</b><br>FR-01 Waste Tote <sup>a</sup>                | 1                          | 0.003                       | 0.0011                         | 0.01             | 0.00                |
| <b>LS-02/BA-12</b><br>Coarse Truck Loadout/Sack <sup>b</sup> | 60                         | 0.02                        | 0.0024                         | 5.26             | 0.63                |
| <b>LS-04</b><br>Truck Loadout from BN-15 <sup>b</sup>        | 60                         | 0.02                        | 0.0024                         | 5.26             | 0.63                |
| <b>LS-05</b><br>Truck Loadout from BN-16 <sup>b</sup>        | 60                         | 0.02                        | 0.0024                         | 5.26             | 0.63                |
| <b>BA-14</b><br>3x20 Coarse Sack <sup>b</sup>                | 25                         | 0.02                        | 0.0024                         | 2.19             | 0.26                |
| <b>BA-15</b><br>Finished Coarse Sack Bagger <sup>b</sup>     | 9                          | 0.02                        | 0.0024                         | 0.79             | 0.09                |
| <b>BC-01</b><br>Dryer Feed Conveyor <sup>a</sup>             | 20                         | 0.003                       | 0.0011                         | 0.26             | 0.10                |
| <b>BN-09</b><br>3/8 Storage Bin <sup>b</sup>                 | 10                         | 0.02                        | 0.0024                         | 0.88             | 0.11                |
| <b>FE-01</b><br>Dryer Feed Conveyor <sup>a</sup>             | 20                         | 0.003                       | 0.0011                         | 0.26             | 0.10                |
| <b>Total</b>   |                            |                             |                                | 20.46            | 2.66                |

**Notes:**

AP-42 Emission Factor References:

a - Conveyor Transfer Point, Table 11.19.2-2 (8/04)

b - Bulk Loading (SCC 3-05-025-06), Fire Version 6.25

**Methodology**

PTE PM/PM-10 (tons/yr) = Maximum Capacity (tons/hr) \* Emission Factor (lb/ton) \* 8760 hrs/yr \* 1 ton/2000 lbs

# APPENDIX B

## Air Quality Analysis

### Unimin Corporation

Aurora, Indiana (Dearborn County)  
Tracking and Plant ID: 029-27310-00022

#### Proposed Project

Unimin Corporation has requested a change to their FESOP permit for dryers and material handling units that will emit Particulate Matter less than 10 microns (PM<sub>10</sub>).

#### Analysis Summary

The emissions after controls for the project are 38.96 Tons per year (TPY). An air quality analysis was performed for PM<sub>10</sub>. The analysis showed no violation of the National Ambient Air Quality Standards (NAAQS).

#### Pollutants Analyzed for Air Quality Impact

##### Proposed Project Emissions

Significant emission levels for each pollutant are defined in 326 IAC 2-2-1 and in the Code of Federal Regulations (CFR) 52.21(b) (23) (i). Particulate Matter less than 10 microns (PM<sub>10</sub>) is the pollutant that will be emitted. Although the source was below significant emission levels, an air quality analysis was performed for this pollutant. Table 1 shows the emission rates modeled.

**TABLE 1**  
**PM10 Emission Rates**

| POLLUTANT        | EMISSION UNIT ID | SOURCE DESCRIPTION          | POTENTIAL EMISSION RATE AFTER CONTROLS | STACK HEIGHT | STACK DIAMETER | TEMP.  | VELOCITY |
|------------------|------------------|-----------------------------|--|--------------|----------------|--------|----------|
|                  |                  |                             | (tons/year)                            | (m)          | (m)            | (F°)   | (m/s)    |
| PM <sub>10</sub> | See Note         | Drying Combustion           | 0.42                                   | 13.411       | 0.536          | 260.33 | 6.4057   |
| PM <sub>10</sub> | DC-01            | Drying Circuit              | 9.99                                   | 20           | 0.536          | 172.99 | 25.062   |
| PM <sub>10</sub> | DC-02            | Screening & Storage Circuit | 9.99                                   | 13.411       | 0.573          | 103.49 | 21.962   |
| PM <sub>10</sub> | DC-06            | Screening & Storage Circuit | 2.85                                   | 13.411       | 0.573          | 132.00 | 6.4057   |
| PM <sub>10</sub> | DC-04            | Bagging & Bulk Loadout      | 2.85                                   | 14.63        | 0.287          | 81.00  | 54.90    |
| PM <sub>10</sub> | DC-03            | Sand Sizing                 | 6.70                                   | 15.849       | 0.256          | 88.00  | 31.931   |
| PM <sub>10</sub> | DC-05            | Fines                       | 3.50                                   | 6.401        | 0.343          | 81.00  | 12.776   |
| PM <sub>10</sub> |                  | Fugitives                   | 2.66                                   |              |                |        |          |
| <b>Total</b>     |                  |                             | <b>38.54</b>                           |              |                |        |          |

Note: Drying Combustion PTE are included in the Drying Circuit limitation and therefore not counted separately for PTE.

## Model Description

For the NAAQS analysis, the American Meteorological Society / Environmental Protection Agency Regulatory Model (AERMOD) was used through Bowman Environmental Engineering Software (BEEST) version 9.55. All regulatory default options were utilized in the U.S. EPA approved model, as listed in the 40 Code of Federal Regulations Part 51, Appendix W "Guideline on Air Quality Models".

The Auer Land Use Classification Scheme was used to determine the land use in the area. The area is considered primarily rural, so that classification was used.

## Meteorological Data

For AERMOD, 1988-1992 meteorological input was generated from Covington, KY NWS surface data with Dayton, Ohio NWS upper air data. This data was generated from Lakes Environmental AERVIEW software.

## Receptor Grid

The receptor grid extended out to a 1.5 kilometer square around the plant. Receptors were closely spaced (100 meters) throughout the grid. Terrain was imported from USGS maps for use in AERMOD.

## Background Monitors

The monitoring site selected was the nearest PM10 monitor to UNIMIN. The monitoring site is 25 miles from the facility. The average of the highest second-highest monitoring values from each year was used for 24-hour background concentrations. Annual background concentrations were taken from the maximum annual values.

**TABLE 2**  
**Existing Monitoring Data Used For Background Concentrations \***

| Pollutant        | Monitoring Site | Averaging Period | Concentration (ug/m3) |
|------------------|-----------------|------------------|-----------------------|
| PM <sub>10</sub> | Fort Thomas, KY | 24 Hour          | 53                    |
| PM <sub>10</sub> | Fort Thomas, KY | Annual           | 20                    |

\*OAQ data from 2006 - 2008.

## NAAQS analysis

### NAAQS Compliance Analysis and Results

IDEM used emission inventories of all sources within Ohio and Dearborn counties. The NAAQS inventory was taken from the IDEM's air quality web site. Unimin's emissions were modeled at potential after controls.

NAAQS modeling for the appropriate time-averaging periods for PM<sub>10</sub> was conducted and compared to the respective NAAQS limit. OAQ modeling results are shown in Table 3. All maximum-modeled concentrations during the five years were below the NAAQS limits and further modeling was not required.

**TABLE 3**  
**NAAQS Analysis**

| Pollutant        | Time Averaging Period        | Concentration ug/m3 | Background Concentration ug/m3 | Total ug/m3 | NAAQS Limit ug/m3 | NAAQS Violation |
|------------------|------------------------------|---------------------|--------------------------------|-------------|-------------------|-----------------|
| PM <sub>10</sub> | 2 <sup>nd</sup> High 24 hour | 70.2                | 53                             | 123.2       | 150               | NO              |
| PM <sub>10</sub> | Maximum Annual               | 10.5                | 20                             | 30.5        | 50                | NO              |

### **Section C - Summary**

UNIMIN has applied for a significant permit revision for a source with PM<sub>10</sub> emissions. Modeling using AERMOD showed no violations of the PM<sub>10</sub> NAAQS standards.

## APPENDIX C

### Air Quality Analysis

#### Unimin Corporation

Aurora, Indiana (Dearborn County)  
Tracking and Plant ID: 029-27310-00022

#### Proposed Project

Unimin Corporation has requested a change to their FESOP permit for dryers and material handling units that will emit Particulate Matter less than 10 microns (PM<sub>10</sub>). On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM<sub>2.5</sub> emissions, and the effective date of these rules was July 15<sup>th</sup>, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM<sub>10</sub> emissions as a surrogate for PM<sub>2.5</sub> emissions until 326 IAC 2-2 is revised. Unimin Corporation has accepted limits for their PM<sub>2.5</sub> emissions to avoid violating National Ambient Air Quality Standards (NAAQS) for PM<sub>2.5</sub>.

#### Analysis Summary

The emissions after controls for the project are 3.59 tons per year (TPY). An air quality analysis was performed for PM<sub>2.5</sub>. The analysis showed no violation of the NAAQS.

#### Pollutants Analyzed for Air Quality Impact

##### Proposed Project Emissions

Significant emission levels for each pollutant are defined in 326 IAC 2-2-1 and in the Code of Federal Regulations (CFR) 52.21(b) (23) (i). Particulate Matter less than 2.5 microns (PM<sub>2.5</sub>) is the pollutant that will be emitted. Although the source was below significant emission levels, an air quality analysis was performed for this pollutant. Table 1 shows the emission rates modeled. PM<sub>2.5</sub> emission rates from Drying Combustion and Fugitives are conservatively estimated to be one hundred percent (100%) of PM<sub>10</sub> emissions.

**TABLE 1**  
**PM<sub>2.5</sub> Emission Rates**

| POLLUTANT         | EMISSION UNIT ID | SOURCE DESCRIPTION          | POTENTIAL EMISSION RATE AFTER CONTROLS | STACK HEIGHT | STACK DIAMETER | TEMP.  | VELOCITY |
|-------------------|------------------|-----------------------------|--|--------------|----------------|--------|----------|
|                   |                  |                             | (tons/year)                            | (m)          | (m)            | (F°)   | (m/s)    |
| PM <sub>2.5</sub> | See Note         | Drying Combustion           | 0.42                                   | 13.411       | 0.536          | 260.33 | 6.4057   |
| PM <sub>2.5</sub> | DC-01            | Drying Circuit              | 1.18                                   | 20           | 0.536          | 172.99 | 25.062   |
| PM <sub>2.5</sub> | DC-02            | Screening & Storage Circuit | 1.26                                   | 13.411       | 0.573          | 103.49 | 21.962   |
| PM <sub>2.5</sub> | DC-06            | Screening & Storage Circuit | 0.09                                   | 13.411       | 0.573          | 132.00 | 6.4057   |
| PM <sub>2.5</sub> | DC-04            | Bagging & Bulk Loadout      | 0.39                                   | 14.63        | 0.287          | 81.00  | 54.90    |
| PM <sub>2.5</sub> | DC-03            | Sand Sizing                 | 0.04                                   | 15.849       | 0.256          | 88.00  | 31.931   |
| PM <sub>2.5</sub> | DC-05            | Fines                       | 0.09                                   | 6.401        | 0.343          | 81.00  | 12.776   |
| PM <sub>2.5</sub> |                  | Fugitives                   | 0.54                                   |              |                |        |          |
| <b>Total</b>      |                  |                             | <b>3.59</b>                            |              |                |        |          |

Note: Drying Combustion PTE are included in the Drying Circuit limitation and therefore not counted separately for PTE.

**Model Description**

For the NAAQS analysis, the American Meteorological Society / Environmental Protection Agency Regulatory Model (AERMOD) was used through Bowman Environmental Engineering Software (BEEST) version 9.55. All regulatory default options were utilized in the U.S. EPA approved model, as listed in the 40 Code of Federal Regulations Part 51, Appendix W “Guideline on Air Quality Models”.

The Auer Land Use Classification Scheme was used to determine the land use in the area. The area is considered primarily rural, so that classification was used.

**Meteorological Data**

For AERMOD, 1988-1992 meteorological input was generated from Covington, KY NWS surface data with Dayton, Ohio NWS upper air data. This data was generated from Lakes Environmental AERVIEW software.

**Receptor Grid**

The receptor grid extended out to a 1.5 kilometer square around the plant. Receptors were closely spaced (100 meters) throughout the grid. Terrain was imported from USGS maps for use in AERMOD.

**Background Monitors**

The monitoring site selected was the nearest PM<sub>2.5</sub> monitor to UNIMIN. The monitoring site is 25 miles from the facility. The average of the highest monitoring values from each year was used for 24-hour background concentrations. Annual background concentrations were taken from the maximum annual values.

**TABLE 2**  
**Existing Monitoring Data Used For Background Concentrations \***

| Pollutant         | Monitoring Site | Averaging Period | Concentration (ug/m3) |
|-------------------|-----------------|------------------|-----------------------|
| PM <sub>2.5</sub> | Fort Thomas, KY | 24 Hour          | 29.80                 |
| PM <sub>2.5</sub> | Fort Thomas, KY | Annual           | 13.99                 |

\*OAQ used data from 2006 - 2008.

## **NAAQS analysis**

### **NAAQS Compliance Analysis and Results**

IDEM used emission inventories of all sources within Ohio and Dearborn counties. The NAAQS inventory was taken from the IDEM's air quality web site. Unimin's emissions were modeled at potential after controls. PM<sub>10</sub> stack test results were used to estimate actual PM<sub>2.5</sub> emissions.

NAAQS modeling for the appropriate time-averaging periods for PM<sub>10</sub> was conducted and compared to the respective NAAQS limit. OAQ modeling results are shown in Table 3. All maximum-modeled concentrations during the five years were below the NAAQS limits and further modeling was not required.

**TABLE 3**  
**NAAQS Analysis**

| Pollutant         | Time Averaging Period        | Concentration ug/m3 | Background Concentration ug/m3 | Total ug/m3 | NAAQS Limit ug/m3 | NAAQS Violation |
|-------------------|------------------------------|---------------------|--------------------------------|-------------|-------------------|-----------------|
| PM <sub>2.5</sub> | 1 <sup>st</sup> High 24 hour | 4.42                | 29.80                          | 34.22       | 35                | NO              |
| PM <sub>2.5</sub> | Maximum Annual               | 0.54                | 13.99                          | 14.53       | 15                | NO              |

## **Section C - Summary**

UNIMIN has applied for a significant permit revision for a source with PM<sub>2.5</sub> emissions. Modeling using AERMOD showed no violations of the PM<sub>2.5</sub> NAAQS standards.



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

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

*Thomas W. Easterly*  
**Commissioner**

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

## **SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED**

**TO:** Cynthia Jamieson  
Unimin Corp.  
137 Franklin Street  
Aurora, IN 47001

**DATE:** June 17, 2009

**FROM:** Matt Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

**SUBJECT:** Final Decision  
First Significant Permit Revision  
029-27310-00022

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:  
Adnrew G. Bradley, VP - Environmental Affairs  
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at [jbrush@idem.IN.gov](mailto:jbrush@idem.IN.gov).

Final Applicant Cover letter.dot 11/30/07



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

June 17, 2009

TO: Aurora Public Library

From: Matthew Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

Subject: **Important Information for Display Regarding a Final Determination**

**Applicant Name: Unimin Corp**  
**Permit Number: 029-27310-00022**

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures  
Final Library.dot 11/30/07



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

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

*Thomas W. Easterly*  
**Commissioner**

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

TO: Interested Parties / Applicant

DATE: June 17, 2009

RE: Unimin Corp. / 029-27310-00022

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

In order to conserve paper and reduce postage costs, IDEM's Office of Air Quality is now sending many permit decisions on CDs in Adobe PDF format. The enclosed CD contains information regarding the company named above.

This permit is also available on the IDEM website at:  
<http://www.in.gov/ai/appfiles/idem-caats/>

If you would like to request a paper copy of the permit document, please contact IDEM's central file room at:

Indiana Government Center North, Room 1201  
100 North Senate Avenue, MC 50-07  
Indianapolis, IN 46204  
Phone: 1-800-451-6027 (ext. 4-0965)  
Fax (317) 232-8659

**Please Note:** *If you feel you have received this information in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at [PPEAR@IDEM.IN.GOV](mailto:PPEAR@IDEM.IN.GOV).*

Enclosures  
CD Memo.dot 11/14/08

# Mail Code 61-53

|                            |   |   |   |  |
|----------------------------|---|---|---|--|
| IDEM Staff                 | GHOTOPP 6/17/2009<br>Unimin Corp 029-27310-00022 Final                            |   | Type of Mail:<br><br><b>CERTIFICATE OF MAILING ONLY</b> | AFFIX STAMP<br>HERE IF<br>USED AS<br>CERTIFICATE<br>OF MAILING |
| Name and address of Sender |  | Indiana Department of Environmental Management<br>Office of Air Quality – Permits Branch<br>100 N. Senate<br>Indianapolis, IN 46204 |   |  |

| Line | Article Number | Name, Address, Street and Post Office Address   | Postage | Handing Charges | Act. Value (If Registered) | Insured Value | Due Send if COD | R.R. Fee | S.D. Fee | S.H. Fee | Rest. Del. Fee | Remarks |
|------|----------------|---|---------|-----------------|----------------------------|---------------|-----------------|----------|----------|----------|----------------|---------|
| 1    |                | Cynthia Jamieson Unimin Corp c/o 137 Frnaklin St Aurora IN 47001 (Source CAATS) via confirmed delivery                    |         |                 |                            |               |                 |          |          |          |                |         |
| 2    |                | Andrew G Bradley VP - Envirmental Affairs Unimin Corp 285 Elm St New Caanan CT 06840-5300 (RO CAATS)                      |         |                 |                            |               |                 |          |          |          |                |         |
| 3    |                | D. & Sandy Lowe 150 Franklin Street Aurora IN 47001 (Affected Party)  |         |                 |                            |               |                 |          |          |          |                |         |
| 4    |                | Michael & Monica Ramsey 9931 Old SR 56 Aurora IN 47001 (Affected Party)   |         |                 |                            |               |                 |          |          |          |                |         |
| 5    |                | Aurora Public Library 414 Second St Aurora IN 47001-1384 (Library)  |         |                 |                            |               |                 |          |          |          |                |         |
| 6    |                | Dearborn County Commissioner 215 B West High Street Lawrenceburg IN 47025 (Local Official)                                |         |                 |                            |               |                 |          |          |          |                |         |
| 7    |                | Dearborn County Health Department 215-b W. Hight St, County Admin Building Lawrenceburg IN 47025-1910 (Health Department) |         |                 |                            |               |                 |          |          |          |                |         |
| 8    |                | Mr. John Teaney P.O. Box 494 10837 Aurora IN 47001 (Affected Party)   |         |                 |                            |               |                 |          |          |          |                |         |
| 9    |                | Robin & Vic Willoughby PO BOX 238 Aurora IN 47001 (Affected Party)  |         |                 |                            |               |                 |          |          |          |                |         |
| 10   |                | Aurora City Council and Mayors Office P.O. Box 158 Aurora IN 47001 (Local Official)                                       |         |                 |                            |               |                 |          |          |          |                |         |
| 11   |                | James & Mary Hassett 7199 E. Laughery Creek Rd Aurora IN 47001 (Affected Party)   |         |                 |                            |               |                 |          |          |          |                |         |
| 12   |                | Nancy & William McDaniel 4600 Hartford PK # 98 Aurora IN 47001 (Affected Party)   |         |                 |                            |               |                 |          |          |          |                |         |
| 13   |                | Ken & Jackie Greive 4685 E. Laughery Creek Road Aurora IN 47001 (Affected Party)  |         |                 |                            |               |                 |          |          |          |                |         |
| 14   |                | Marlin M. Guss, Jr. 10400 Millstone Dr, P.O. Box 272 Aurora IN 47001 (Affected Party)                                     |         |                 |                            |               |                 |          |          |          |                |         |
| 15   |                | Mrs. Shirley Greive 4412 E. Laughery Aurora IN 47001 (Affected Party)   |         |                 |                            |               |                 |          |          |          |                |         |

|   |  |  |  |
|---|--|--|--|
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| 14                                      |  |  |  |

# Mail Code 61-53

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|----------------------------|---|---|---|--|
| IDEM Staff                 | GHOTOPP 6/17/2009<br>Unimin Corp 029-27310-00022 Final                            |   | Type of Mail:<br><br><b>CERTIFICATE OF MAILING ONLY</b> | AFFIX STAMP<br>HERE IF<br>USED AS<br>CERTIFICATE<br>OF MAILING |
| Name and address of Sender |  | Indiana Department of Environmental Management<br>Office of Air Quality – Permits Branch<br>100 N. Senate<br>Indianapolis, IN 46204 |   |  |

| Line | Article Number | Name, Address, Street and Post Office Address  | Postage | Handing Charges | Act. Value (If Registered) | Insured Value | Due Send if COD | R.R. Fee | S.D. Fee | S.H. Fee | Rest. Del. Fee | Remarks |
|------|----------------|--|---------|-----------------|----------------------------|---------------|-----------------|----------|----------|----------|----------------|---------|
| 1    |                | Patricia 10095 Old SR 56 Aurora IN 47001 (Affected Party)                                      |         |                 |                            |               |                 |          |          |          |                |         |
| 2    |                | Sam & Nancy Valone 3826 E. Laughery Creek Rd Aurora IN 47001 (Affected Party)                  |         |                 |                            |               |                 |          |          |          |                |         |
| 3    |                | Peter & Jody Franklin 9212 Hawksridge Dr. Covington KY 41017-9136 (Affected Party)             |         |                 |                            |               |                 |          |          |          |                |         |
| 4    |                | Mrs. Melanie Bushorn 4172 E. Laughery Creek Rd Aurora IN 47001 (Affected Party)                |         |                 |                            |               |                 |          |          |          |                |         |
| 5    |                | James Sechrest Jr 144 Franklin Street Aurora IN 47001 (Affected Party)                         |         |                 |                            |               |                 |          |          |          |                |         |
| 6    |                | Jim Sechrest 144 Franklin St. Aurora IN 47001 (Affected Party)                                 |         |                 |                            |               |                 |          |          |          |                |         |
| 7    |                | Jerry Sechrest 130 Franklin St. Aurora IN 47001 (Affected Party)                               |         |                 |                            |               |                 |          |          |          |                |         |
| 8    |                | Mr. Rick Grubbs City of Aurora Code Enforcement, P.O. Box 158 Aurora IN 47001 (Affected Party) |         |                 |                            |               |                 |          |          |          |                |         |
| 9    |                | Mr. Donald & Sandra Lowe 150 Franklin St Aurora IN 47001 (Affected Party)                      |         |                 |                            |               |                 |          |          |          |                |         |
| 10   |                | Mr. Bobby & Theresa Brakley 159 Franklin St. Aurora IN 47001 (Affected Party)                  |         |                 |                            |               |                 |          |          |          |                |         |
| 11   |                | Tyler Wollpert 105 Indiana Avenue Aurora IN 47001 (Affected Party)                             |         |                 |                            |               |                 |          |          |          |                |         |
| 12   |                | Donald & Sabine Metheny 160 Franklin Street Aurora IN 47001 (Affected Party)                   |         |                 |                            |               |                 |          |          |          |                |         |
| 13   |                | Jeremy Sechrest 130 Franklin St Aurora IN 47001 (Affected Party)                               |         |                 |                            |               |                 |          |          |          |                |         |
| 14   |                | Ursula Bauer-Woolpert 307 Indiana Ave Aurora IN 47001 (Affected Party)                         |         |                 |                            |               |                 |          |          |          |                |         |
| 15   |                |  |         |                 |                            |               |                 |          |          |          |                |         |

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| <b>14</b>                               |  |  |  |