



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: August 3, 2005
RE: Corn Flour Producers / 055-21006-00039
FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted 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, Room 1049, 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.dot 1/10/05



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**NEW SOURCE CONSTRUCTION PERMIT
and MINOR SOURCE OPERATING PERMIT
OFFICE OF AIR QUALITY**

**Corn Flour Producers, LLC
Rural Route 2, Box 376
Worthington, Indiana 47471**

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

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-5.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

| | |
|--|--|
| Operation Permit No.: MSOP 055-21006-00039 | |
| Original signed by: Paul Dubenetzky, Chief Permits Branch Office of Air Quality | Issuance Date: August 3, 2005 Expiration Date: August 3, 2010 |



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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 and A.2 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 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary corn flour production facility.

| | |
|-------------------------|--|
| Authorized Individual: | Chairman |
| Source Address: | Rural Route 2, Box 376, Worthington, Indiana 47471 |
| Mailing Address: | 4698 S. St. Thomas Road, Vincennes, Indiana 47591 |
| General Source Phone: | (812) 882-4452 |
| SIC Code: | 2046 |
| County Location: | Greene |
| Source Location Status: | Nonattainment area for 8-hour ozone standard Attainment area for all other criteria pollutants |
| Source Status: | Minor Source Operating Permit Minor Source, under PSD Rules Minor Source, under Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories |

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) One (1) grain receiving station (hopper truck), identified as GR1, to be constructed in 2005, with a maximum capacity of 8,000 bushels (240 tons) of grain per hour, with emissions controlled by a high efficiency cyclone (CYC1), a two-sided enclosure and limited drop height, and exhausting to stack 1. Grain fragments, seed husks, dust and other detritus collected by the cyclone during unloading is conveyed pneumatically into the waste storage hopper (WSH1).
- (b) One grain handling and storage system, consisting of totally enclosed drag and screw-type conveyors, legs, and cleaners, identified as GH1, and four (4) grain storage silos, identified as GS1 – GS4, to be constructed in 2005, with a maximum capacity of handling 1,000 bushels (30 tons) of grain per hour and storing 33,400 bushels (1,002 tons) of grain, with emissions from handling controlled by a high efficiency cyclone (CYC1) which exhausts to stack 1. Grain fragments, seed husks, dust and other detritus collected by the cyclone during handling is conveyed pneumatically to the waste storage hopper (WSH1). Emissions from the grain storage silos are controlled by bin vents.
- (c) One (1) lime loading vacuum blower, identified as LLVB1, to be constructed in 2005, with a maximum capacity of 0.2 tons of food grade lime per hour, consisting of a vacuum conveyance system with two filters arranged in series, with emissions from the filters exhausting inside the building.
- (d) One (1) corn particle drying process, to be constructed in 2005, consisting of two (2) dehydration cyclones, identified as DEHYDC1 and DEHYDC2, for drying the wet-milled corn particles and pneumatically conveying the dried corn particles to the cooling cyclones, with particulate emissions exhausting to stacks 4 and 5. The heat for the corn particle drying process is supplied by two (2) natural gas-fired dryers, identified as NGDRY1 and NGDRY2, to be constructed in 2005, with maximum capacities of 9.0 MMBtu/hour and 6.0 MMBtu/hour, respectively.

- (e) Two (2) cooling cyclones for cooling the dried corn particles, identified as COOLC1 and COOLC2, to be constructed in 2005, with the dried, cooled corn particles from COOLC1 conveyed pneumatically to COOLC2, and the dried, cooled corn particles from COOLC2 gravity-fed into the sifter, with particulate emissions exhausting to stacks 8 and 9, respectively.
- (f) One (1) coarse particles vacuum blower, identified as CPVB1, to be constructed in 2005, for conveying coarse corn particles and pericarp from the fully enclosed sifter to the aspirator, consisting of a vacuum conveyance system with two filters arranged in series, with emissions from the filters exhausting inside the building.
- (g) One (1) fully enclosed aspirator for separating pericarp from coarse, dried, cooled corn particles, identified as ASP1, to be constructed in 2005, with a maximum capacity of 2 tons of pericarp and coarse particles per hour, with the pericarp conveyed to the waste storage hopper (WSH1) via a pneumatic conveyance system with emissions controlled by a high efficiency cyclone (CYC1), which exhausts to stack 1, and with the coarse, dried, cooled corn particles conveyed to the enclosed secondary hammermill via gravity.
- (h) One (1) fine particles vacuum blower, identified as FPVB1, to be constructed in 2005, for conveying fine particles to the two (2) flour storage silos (FSS1 and FSS2) and the two (2) finished product hoppers (FPH1 and FPH2), consisting of a vacuum and pressure pneumatic conveyance system with filters arranged in series, with emissions from the filters exhausting inside the building.
- (i) Two (2) flour storage silos for storing finished flour, identified as FSS1 and FSS2, to be constructed in 2005, each with a maximum storage capacity of 83.6 tons, with emissions controlled by bin vent filters, and exhausting outside the building.
- (j) Two (2) finished product hoppers for holding finished flour and packaging finished flour, identified as FPH1 and FPH2, to be constructed in 2005, FPH1 filling 50 pound bags has a maximum capacity of 8.25 tons per hour, FPH2 filling totes has a maximum capacity of 3.84 tons per hour, with particulate from packaging controlled by a bag filter, and exhausting inside the building.
- (k) One (1) waste storage hopper for holding pericarp prior to shipping to animal feed operations and for loading pericarp onto trucks, identified as WSH1, to be constructed in 2005, with maximum storage capacity of 2,400 cubic feet of waste, with maximum loading capacity of 0.5 tons per hour, with pericarp and grain waste from unloading, handling and aspirator operations conveyed to the waste storage hopper by a pneumatic conveyance system, with emissions from conveyance and loading controlled by high efficiency cyclone (CYC1), and exhausting to stack 1.
- (l) One (1) natural gas-fired boiler, identified as B1, to be constructed in 2005, with a maximum capacity of 6.28 MMBtu/hour, with emissions exhausting to stack 3.
- (m) Paved roads and parking lots with public access.
- (n) Blowdown from any of the following: sight glass, boiler or compressor.

SECTION B GENERAL CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

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 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]

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

B.5 Permit Term and Renewal [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5]

This permit 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 of this permit do not affect the expiration date.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

B.6 Modification to Permit [326 IAC 2]

Notwithstanding the Section B condition entitled "Minor Source Operating Permit", all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.7 Minor Source Operating Permit [326 IAC 2-6.1]

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section.
 - (1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
 - (2) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2-6.1-6 and an Operation Permit Validation Letter is issued.

- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section, the Permittee shall attach it to this document.
- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).

B.8 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, Indiana 46204
- (d) The notification 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.

B.9 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days (this time frame is determined on a case by case basis but no more than ninety (90) days) after issuance of this permit, including the following information on each emissions unit:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

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

- (b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.
- (c) A copy of the PMP's 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 PMP whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by an “authorized individual” as defined by 326 IAC 2-1.1-1(1).
- (d) 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.10 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

Any such application shall be certified by an “authorized individual” as defined by 326 IAC 2-1.1-1.

- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]
- (d) No permit amendment or modification is required for the addition, operation or removal of a non-road engine, as defined in 40 CFR 89.2.

B.11 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)] [IC 13-14-2-2] [IC13-17-3-2][IC 13-30-3-1]

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 permitted 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 this title or the conditions of this permit or any operating permit revisions;
- (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 processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;

- (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.12 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)]:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

B.13 Annual Fee Payment [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.
- (b) 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.14 Credible Evidence [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

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 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

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 non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

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

C.5 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

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 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

Testing Requirements

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

- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the

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

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

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

no later than thirty-five (35) days prior to the intended test date.

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ (and local agency) not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, (and local agency), 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.7 Compliance Requirements [326 IAC 2-1.1-11]

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

Compliance Monitoring Requirements

C.8 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.9 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]

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

C.10 Compliance Response Plan - Preparation and Implementation

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ, upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
 - (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
 - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
 - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
 - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be ten (10) days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down. The notification shall also include the status of the applicable compliance monitoring parameter with respect to normal, and the results of the response actions taken up to the time of notification.
 - (4) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.11 Actions Related to Noncompliance Demonstrated by a Stack Test

- (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 emissions unit 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 re-testing in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the re-testing deadline.

- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to non-compliant stack tests.

The response action documents submitted pursuant to this condition do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1.

Record Keeping and Reporting Requirements

C.12 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.13 General Record Keeping Requirements [326 IAC 2-6.1-5]

- (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 when operation begins.

C.14 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-5] [IC 13-14-1-13]

- (a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204
- (b) 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.

- (c) 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.

SECTION D.1

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-6.1-5(a)(1)]:

- (a) One (1) grain receiving station (hopper truck), identified as GR1, to be constructed in 2005, with a maximum capacity of 8,000 bushels (240 tons) of grain per hour, with emissions controlled by a high efficiency cyclone (CYC1), a two-sided enclosure and limited drop height, and exhausting to stack 1. Grain fragments, seed husks, dust and other detritus collected by the cyclone during unloading is conveyed pneumatically into the waste storage hopper (WSH1).
- (b) One grain handling and storage system, consisting of totally enclosed drag and screw-type conveyors, legs, and cleaners, identified as GH1, and four (4) grain storage silos, identified as GS1 – GS4, to be constructed in 2005, with a maximum capacity of handling 1,000 bushels (30 tons) of grain per hour and storing 33,400 bushels (1,002 tons) of grain, with emissions from handling controlled by a high efficiency cyclone (CYC1) which exhausts to stack 1. Grain fragments, seed husks, dust and other detritus collected by the cyclone during handling is conveyed pneumatically to the waste storage hopper (WSH1). Emissions from the grain storage silos are controlled by bin vents.
- (c) One (1) lime loading vacuum blower, identified as LLVB1, to be constructed in 2005, with a maximum capacity of 0.2 tons of food grade lime per hour, consisting of a vacuum conveyance system with two filters arranged in series, with emissions from the filters exhausting inside the building.
- (d) One (1) corn particle drying process, to be constructed in 2005, consisting of two (2) dehydration cyclones, identified as DEHYDC1 and DEHYDC2, for drying the wet-milled corn particles and pneumatically conveying the dried corn particles to the cooling cyclones, with particulate emissions exhausting to stacks 4 and 5. The heat for the corn particle drying process is supplied by two (2) natural gas-fired dryers, identified as NGDRY1 and NGDRY2, to be constructed in 2005, with maximum capacities of 9.0 MMBtu/hour and 6.0 MMBtu/hour, respectively.
- (e) Two (2) cooling cyclones for cooling the dried corn particles, identified as COOLC1 and COOLC2, to be constructed in 2005, with the dried, cooled corn particles from COOLC1 conveyed pneumatically to COOLC2, and the dried, cooled corn particles from COOLC2 gravity-fed into the sifter, with particulate emissions exhausting to stacks 8 and 9, respectively.
- (f) One (1) coarse particles vacuum blower, identified as CPVB1, to be constructed in 2005, for conveying coarse corn particles and pericarp from the fully enclosed sifter to the aspirator, consisting of a vacuum conveyance system with two filters arranged in series, with emissions from the filters exhausting inside the building.
- (g) One (1) fully enclosed aspirator for separating pericarp from coarse, dried, cooled corn particles, identified as ASP1, to be constructed in 2005, with a maximum capacity of 2 tons of pericarp and coarse particles per hour, with the pericarp conveyed to the waste storage hopper (WSH1) via a pneumatic conveyance system with emissions controlled by a high efficiency cyclone (CYC1), which exhausts to stack 1, and with the coarse, dried, cooled corn particles conveyed to the enclosed secondary hammermill via gravity.
- (h) One (1) fine particles vacuum blower, identified as FPVB1, to be constructed in 2005, for conveying fine particles to the two (2) flour storage silos (FSS1 and FSS2) and the two (2) finished product hoppers (FPH1 and FPH2), consisting of a vacuum and pressure pneumatic conveyance system with filters arranged in series, with emissions from the filters exhausting inside the building.
- (i) Two (2) flour storage silos for storing finished flour, identified as FSS1 and FSS2, to be constructed in 2005, each with a maximum storage capacity of 83.6 tons, with emissions controlled by bin vent filters, and exhausting outside the building.

Emissions Unit Description [326 IAC 2-6.1-5(a)(1)]: (Continued)

- (j) Two (2) finished product hoppers for holding finished flour and packaging finished flour, identified as FPH1 and FPH2, to be constructed in 2005, FPH1 filling 50 pound bags has a maximum capacity of 8.25 tons per hour, FPH2 filling totes has a maximum capacity of 3.84 tons per hour, with particulate from packaging controlled by a bag filter, and exhausting inside the building.
- (k) One (1) waste storage hopper for holding pericarp prior to shipping to animal feed operations and for loading pericarp onto trucks, identified as WSH1, to be constructed in 2005, with maximum storage capacity of 2,400 cubic feet of waste, with maximum loading capacity of 0.5 tons per hour, with pericarp and grain waste from unloading, handling and aspirator operations conveyed to the waste storage hopper by a pneumatic conveyance system, with emissions from conveyance and loading controlled by high efficiency cyclone (CYC1), and exhausting to stack 1.

(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 2-6.1-5(a)(1)]

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate shall not exceed the rate shown in the following table:

| Emissions Unit Description | Emission Unit ID # | Maximum Process Weight (tons/hour) | 326 IAC 6-3-2 Allowable Particulate Emissions (lbs/hour) |
|-----------------------------------|--------------------|------------------------------------|--|
| Grain Receiving | GR1 | 240 | 60.5 |
| Grain Handling | GH1 | 30.0 | 40.0 |
| Pericarp Collection/Waste Loading | WSH1 | 0.5 | 2.6 |
| Lime Loading Vacuum Blower | LLVB1 | 0.20 | 1.39 |
| Dehydration Cyclone #1 | DEHYDC1 | 4.58 | 11.4 |
| Dehydration Cyclone #2 | DEHYDC2 | 4.58 | 11.4 |
| Cooling Cyclone # 1 | COOLC1 | 4.58 | 11.4 |
| Cooling Cyclone # 2 | COOLC2 | 6.87 | 14.9 |
| Coarse Particles Vacuum Blower | CPVB1 | 2.29 | 7.1 |
| Fine Particles Vacuum Blower | FPVB1 | 4.58 | 11.4 |
| Finish Product Loading 1 | FPH1 | 8.25 | 16.9 |
| Finish Product Loading 2 | FPH2 | 3.84 | 10.1 |

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

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

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

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

D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for GR1, GH1, DEHYDC1, DEHYDC2, COOLC1, COOLC2, CPVB1, FPVB1, FSS1, FSS2, FPH1, FPH2, and WSH1 and their control devices.

Compliance Determination Requirements

D.1.3 Particulate Control

Pursuant to 326 IAC 6-3-2, and in order to comply with D.1.1, the cyclones and filters for particulate control shall be in operation and control emissions from the emission units identified as GR1, GH1, WSH1, LLVB1, DEHYDC1, DEHYDC2, COOLC1, COOLC2, CPVB1, FPVB1, FSS1, FSS2, FPH1, and FPH2 at all times that these facilities are in operation.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.4 Visible Emissions Notations

- (a) Visible emission notations of the stack exhausts from CYC1, DEHYDC1, DEHYDC2, COOLC1, COOLC2, FSS1, FSS2, FPH1, and FPH2 shall be performed once per day during normal daylight operations when venting 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) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a deviation from this permit.

D.1.5 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses and filters used in conjunction with FPVB1 and the finished product loading operations (FPH1 and FPH2), at least once per day when the process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. 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 - Compliance Response Plan - Preparation and Implementation shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.6 Bag and Filter Inspections

An inspection shall be performed each calendar quarter of all bags and filters controlling FPVB1 and the finished product loading operations (FPH1 and FPH2). A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. Inspections required by this condition shall not be performed in consecutive months. All defective bags and filters shall be repaired or replaced.

D.1.7 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 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.
- (b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced.

D.1.8 Cyclone Inspections

An inspection shall be performed each calendar quarter of cyclone CYC1. Inspections required by this condition shall not be performed in consecutive months.

D.1.9 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a deviation from this permit.

Record Keeping and Reporting Requirement

D.1.10 Record Keeping Requirements

- (a) To document compliance with Condition D.1.4, the Permittee shall maintain records of visible emission notations of the stack exhausts from CYC1, DEHYDC1, DEHYDC2, COOLC1, COOLC2, FSS1, FSS2, FPH1, and FPH2 once per day.
- (b) To document compliance with Condition D.1.5, the Permittee shall maintain records once per day of the total static pressure drop during normal operation when venting to the atmosphere.
- (c) To document compliance with Conditions D.1.6 and D.1.8, the Permittee shall maintain records of the results of the inspections required under Conditions D.1.6 and D.1.8.
- (d) To document compliance with Condition D.1.2, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-6.1-5(a)(1)]:

- (l) One (1) natural gas-fired boiler, identified as B1, to be constructed in 2005, with a maximum capacity of 6.28 MMBtu/hour, with emissions exhausting to stack 3.

(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 2-6.1-5(a)(1)]

D.2.1 Particulate [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating) the particulate emissions from the 6.28 MMBtu/hour natural gas-fired boiler (B1) shall be limited to 0.6 pounds per MMBtu heat input.

SECTION D.3

EMISSIONS UNITS OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-6.1-5(a)(1)]:

- (m) Paved roads and parking lots with public access.
- (n) Blowdown from any of the following: sight glass, boiler or compressor.

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

There are no specific State or Federal emission limits applicable to the units described in this section.

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

**MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

| | |
|----------------------|-------------------------------------|
| Company Name: | Corn Flour Producers, L.L.C. |
| Address: | Rural Route 2, Box 376 |
| City: | Worthington, Indiana 47471 |
| Phone #: | 812-882-4452 |
| MSOP #: | 055-21006-00039 |

I hereby certify that Corn Flour Producers, L.L.C. is

- still in operation.
- no longer in operation.

I hereby certify that Corn Flour Producers, L.L.C. is

- in compliance with the requirements of MSOP 055-21006-00039
- not in compliance with the requirements of MSOP 055-21006-00039

| |
|---------------------------------------|
| Authorized Individual (typed): |
| Title: |
| Signature: |
| Date: |

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

| |
|-----------------------|
| Noncompliance: |
| |
| |
| |
| |
| |

MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-5967**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERM LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF >MALFUNCTION= AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: _____ PHONE NO. () _____
LOCATION: (CITY AND COUNTY) _____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____/____/20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/20____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

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

**Addendum to the Technical Support Document
for a New Source Construction / Minor Source Operating Permit (MSOP)**

Source Background and Description

| | |
|-----------------------|--|
| Source Name: | Corn Flour Producers, LLC |
| Source Location: | Rural Route 2, Box 376, Worthington, Indiana 47471 |
| County: | Greene |
| SIC Code: | 2041 |
| Operation Permit No.: | 055-21006-00039 |
| Permit Reviewer: | ERG/ST |

On June 24, 2005 the Office of Air Quality (OAQ) had a notice published in the Linton Daily Citizen, Linton, Indiana, stating that Corn Flour Producers, LLC had applied for a New Source Construction / Minor Source Operating Permit (NSC/MSOP) to operate a corn flour milling facility with control. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On July 29, 2005, Corn Flour Producers, LLC submitted comments on the proposed NSC/MSOP. The summary of the comments is as follows:

Comment 1: The source address should be changed to "Rural Route" instead of "Roate" throughout the permit.

Response to Comment 1: Section A.1 and the Annual Notification form have been changed as follows:

| | |
|------------------------|--|
| Authorized Individual: | Chairman |
| Source Address: | Rural Roate Route 2, Box 376, Worthington, Indiana 47471 |
| Mailing Address: | 4698 S. St. Thomas Road, Vincennes, Indiana 47591 |
| General Source Phone: | (812) 882-4452 |
| SIC Code: | 2046 |

.....

| | |
|---------------|--|
| Company Name: | Corn Flour Producers, L.L.C. |
| Address: | Rural Roate Route 2, Box 376 |
| City: | Worthington, Indiana 47471 |
| Phone #: | 812-882-4452 |
| MSOP #: | 055-21006-00039 |

Comment 2: In the emissions unit descriptions in Sections A.2, D.1 and D.3 of the permit: in paragraph (d), change “slurry” to “particle”, in paragraph (h), insert “vacuum and pressure” before “pneumatic conveyance”, and add paragraph (n) “Blowdown from any of the following: sight glass, boiler or compressor”.

Response to Comment 2: The following changes have been made to the emissions unit descriptions in Sections A.2, D.1 and D.3 of the permit:

-
- (d) One (1) corn particle drying process, to be constructed in 2005, consisting of two (2) dehydration cyclones, identified as DEHYDC1 and DEHYDC2, for drying the wet-milled corn particles and pneumatically conveying the dried corn particles to the cooling cyclones, with particulate emissions exhausting to stacks 4 and 5. The heat for the corn ~~slurry~~ **particle** drying process is supplied by two (2) natural gas-fired dryers, identified as NGDRY1 and NGDRY2, to be constructed in 2005, with maximum capacities of 9.0 MMBtu/hour and 6.0 MMBtu/hour, respectively.
-
- (h) One (1) fine particles vacuum blower, identified as FPVB1, to be constructed in 2005, for conveying fine particles to the two (2) flour storage silos (FSS1 and FSS2) and the two (2) finished product hoppers (FPH1 and FPH2), consisting of a **vacuum and pressure** pneumatic conveyance system with filters arranged in series, with emissions from the filters exhausting inside the building.
-
- (m) Paved roads and parking lots with public access.
 - (n) **Blowdown from any of the following: sight glass, boiler or compressor.**

Comment 3: In the Technical Support Document, in the “Background” section, delete the phrase “using the wet corn milling process”. In the Technical Support Document, in paragraph (b) of the “Air Pollution Control Justification as an Integral Part of the Process” section, remove the word “slurry”. In the Technical Support Document, in the “Conclusion” section, delete the phrase “stationary wet corn milling and”.

Response to Comment 3: No changes have been made to the TSD because the OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a New Source Construction and Minor Source Operating Permit

Source Background and Description

| | |
|-----------------------|--|
| Source Name: | Corn Flour Producers, LLC |
| Source Location: | Rural Roate 2, Box 376, Worthington, Indiana 47471 |
| County: | Greene |
| SIC Code: | 2046 |
| Operation Permit No.: | 055-21006-00039 |
| Permit Reviewer: | ERG/ST |

The Office of Air Quality (OAQ) has reviewed an application from Corn Flour Producers, LLC relating to the construction and operation of a stationary corn flour production facility.

Background:

Corn Flour Producers, LLC plans to construct a new plant to manufacture corn flour using the wet milling process. Yellow and white corn will be delivered via hopper truck and conveyed by drag conveyors and bucket elevators into silos. Corn is then removed from silos, and cleaned and conveyed by bucket elevator to clean corn bins. Clean corn is blended and measured, mixed with lime and water, and placed in a macerator where it will be cooked for one half hour using steam from the boiler. The cooked corn will be conveyed pneumatically to a holding tank and then pulverized in a hammermill. The cooked corn will be dehydrated and cooled by passing it through three cyclones (or four, depending upon customer requirements) arranged in series. The pulverized, dried corn mixture will then be conveyed pneumatically to a sifter, where it will be separated into coarse and fine fractions. The coarse fraction will then be conveyed pneumatically to an aspirator, where the pericarp (seed husk) will be separated from the coarse grain fragments. The pericarp will be conveyed pneumatically to a storage hopper, then loaded onto a truck for shipment to animal feed operations. The coarse grain fragments will be returned to the secondary hammermill for further processing. The fine fraction (finished corn flour from the separator) will have preservatives added and then be conveyed pneumatically to the packaging tower or the corn flour silos. The finished corn flour will be loaded into bulk flour trucks, packaged in 50 lb sacks or 2,000 pound totes, and then shipped to customers.

New Emission Units and Pollution Control Equipment

The application includes information relating to the construction and operation of the following emission units and pollution control devices:

- (a) One (1) grain receiving station (hopper truck), identified as GR1, to be constructed in 2005, with a maximum capacity of 8,000 bushels (240 tons) of grain per hour, with emissions controlled by a high efficiency cyclone (CYC1), a two-sided enclosure and limited drop height, and exhausting to stack 1. Grain fragments, seed husks, dust and other detritus collected by the cyclone during unloading is conveyed pneumatically into the waste storage hopper (WSH1).
- (b) One grain handling and storage system, consisting of totally enclosed drag and screw-type conveyors, legs, and cleaners, identified as GH1, and four (4) grain storage silos, identified as GS1 – GS4, to be constructed in 2005, with a maximum capacity of handling

1,000 bushels (30 tons) of grain per hour and storing 33,400 bushels (1,002 tons) of grain, with emissions from handling controlled by a high efficiency cyclone (CYC1) which exhausts to stack 1. Grain fragments, seed husks, dust and other detritus collected by the cyclone during handling is conveyed pneumatically to the waste storage hopper (WSH1). Emissions from the grain storage silos are controlled by bin vents.

- (c) One (1) lime loading vacuum blower, identified as LLVB1, to be constructed in 2005, with a maximum capacity of 0.2 tons of food grade lime per hour, consisting of a vacuum conveyance system with two filters arranged in series, with emissions from the filters exhausting inside the building.
- (d) One (1) corn particle drying process, to be constructed in 2005, consisting of two (2) dehydration cyclones, identified as DEHYDC1 and DEHYDC2, for drying the wet-milled corn particles and pneumatically conveying the dried corn particles to the cooling cyclones, with particulate emissions exhausting to stacks 4 and 5. The heat for the corn slurry drying process is supplied by two (2) natural gas-fired dryers, identified as NGDRY1 and NGDRY2, to be constructed in 2005, with maximum capacities of 9.0 MMBtu/hour and 6.0 MMBtu/hour, respectively.
- (e) Two (2) cooling cyclones for cooling the dried corn particles, identified as COOLC1 and COOLC2, to be constructed in 2005, with the dried, cooled corn particles from COOLC1 conveyed pneumatically to COOLC2, and the dried, cooled corn particles from COOLC2 gravity-fed into the sifter, with particulate emissions exhausting to stacks 8 and 9, respectively.
- (f) One (1) coarse particles vacuum blower, identified as CPVB1, to be constructed in 2005, for conveying coarse corn particles and pericarp from the fully enclosed sifter to the aspirator, consisting of a vacuum conveyance system with two filters arranged in series, with emissions from the filters exhausting inside the building.
- (g) One (1) fully enclosed aspirator for separating pericarp from coarse, dried, cooled corn particles, identified as ASP1, to be constructed in 2005, with a maximum capacity of 2 tons of pericarp and coarse particles per hour, with the pericarp conveyed to the waste storage hopper (WSH1) via a pneumatic conveyance system with emissions controlled by high efficiency cyclone (CYC1), which exhausts to stack 1, and with the coarse, dried, cooled corn particles conveyed to the enclosed secondary hammermill via gravity.
- (h) One (1) fine particles vacuum blower, identified as FPVB1, to be constructed in 2005, for conveying fine particles to the two (2) flour storage silos (FSS1 and FSS2) and the two (2) finished product hoppers (FPH1 and FPH2), consisting of a pneumatic conveyance system with filters arranged in series, with emissions from the filters exhausting inside the building.
- (i) Two (2) flour storage silos for storing finished flour, identified as FSS1 and FSS2, to be constructed in 2005, each with a maximum storage capacity of 83.6 tons, with emissions controlled by bin vent filters, and exhausting outside the building.
- (j) Two (2) finished product hoppers for holding finished flour and packaging finished flour, identified as FPH1 and FPH2, to be constructed in 2005, FPH1 filling 50 pound bags has a maximum capacity of 8.25 tons per hour, FPH2 filling totes has a maximum capacity of 3.84 tons per hour, with particulate from packaging controlled by a bag filter, and exhausting inside the building.
- (k) One (1) waste storage hopper for holding pericarp prior to shipping to animal feed operations and for loading pericarp onto trucks, identified as WSH1, to be constructed in 2005, with maximum storage capacity of 2,400 cubic feet of waste, with maximum loading capacity of 0.5 tons per hour, with pericarp and grain waste from unloading, handling and aspirator operations conveyed to the waste storage hopper by a pneumatic

conveyance system, with emissions from conveyance and loading controlled by high efficiency cyclone (CYC1), and exhausting to stack 1.

- (l) One (1) natural gas-fired boiler, identified as B1, to be constructed in 2005, with a maximum capacity of 6.28 MMBtu/hour, with emissions exhausting to stack 3.
- (m) Paved roads and parking lots with public access.

Note: The corn grain is cooked in a macerator, which uses heat supplied by the boiler. The cooked corn is conveyed pneumatically to a temporary storage tank and then to the primary hammermill, where the grain is pulverized and milled into wet corn particles, and then conveyed pneumatically to the two (2) dehydration cyclones. The maximum capacity of the entire facility is 4.583 tons of corn flour per hour, based on the maximum capacity of the macerator, whose throughput capacity limits the entire process.

Existing Approvals

This is the first permit to be issued to the source at this location.

Air Pollution Control Justification as an Integral Part of the Process

The company has submitted the following justifications such that the lime loading vacuum blower filters (LLVB1), dehydration cyclones 1 and 2 (DEHYDC1, DEHYDC2), cooling cyclones 1 and 2 (COOLC1, COOLC2), coarse particles vacuum blower (CPVB1) filters and the fine particles vacuum blower (FPVB1) filters be considered as an integral part of the wet corn milling and corn flour production process:

- (a) The filters on the vacuum blowers are considered integral to the process because the lime loading vacuum blower, coarse particles vacuum blower and fine particles vacuum blower cannot operate without the filters. These three processes pneumatically convey material using vacuum and the filters separate product from air when the product has reached its destination.
- (b) The dehydration cyclones 1 and 2 and cooling cyclones 1 and 2 are considered integral to the process because the dehydration cyclones 1 and 2 and cooling cyclones 1 and 2 perform the essential process functions of drying and cooling the corn particles prior to conveying it to the sifter. The dehydration cyclones remove moisture from the wet-milled corn particles by providing an efficient, turbulent drying environment with a longer residence time in the heated air, resulting in a dryer product. Similarly, the cooling cyclones remove heat from the dried corn slurry particles by providing longer cooling time. The dehydration cyclones 1 and 2 and cooling cyclones 1 and 2 primary purpose is materials processing and not pollution control. These processes produce only valuable product and no waste.

IDEM, OAQ has evaluated the justifications and agreed that the lime loading vacuum blower filters, the coarse particles vacuum blower filters, the fine particles vacuum blower filters, the dehydration cyclones 1 and 2 and the cooling cyclones 1 and 2 shall be considered as an integral part of the wet corn milling and corn flour production processes. Therefore, the permitting level will be determined using the potential to emit after the filters and cyclones.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

| Stack ID | Operation | Height (ft) | Diameter (ft) | Flow Rate (acfm) | Temperature (°F) |
|----------|----------------|-------------|---------------|------------------|--------------------------|
| 1 | CYC1 | 57.5 | 1.66 | 2500 | Ambient |
| 3 | B1 | 50 | 1.5 | 5,000 | 350 |
| 4 | DEHYDC1-NGDRY1 | 56 | 3.5 | 21,800 | 475 |
| 5 | DEHYDC2-NGDRY2 | 56 | 3.5 | 21,800 | 257 |
| 8 | COOLC1 | 56 | 3.5 | 17,400 | 20 degrees above ambient |
| 9 | COOLC2 | 56 | 3.5 | 17,400 | 20 degrees above ambient |

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on March 29, 2005, with additional information received on May 17, 2005.

Emission Calculations

See Appendix A of this document for detailed emission calculations (Pages 1 through 6).

Potential to Emit of the Source Before Controls

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

| Pollutant | Potential to Emit (tons/yr) |
|-----------------|-----------------------------|
| PM | 38.1 |
| PM10 | 37.2 |
| SO ₂ | 0.06 |
| VOC | 0.5 |
| CO | 7.83 |
| NO _x | 9.32 |

| HAPs | Potential to Emit (tons/yr) |
|------------|-----------------------------|
| Hexane | 0.17 |
| All others | 0.01 |
| Total | 0.18 |

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants are less than 100 tons per year and the potential to emit PM and PM10 is greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. An MSOP will be issued.
- (b) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in Greene County.

| Pollutant | Status |
|-----------------|------------------------------|
| PM2.5 | Unclassifiable or Attainment |
| PM10 | Attainment |
| SO ₂ | Attainment |
| NO ₂ | Attainment |
| 1-hour Ozone | Attainment |
| 8-hour Ozone | Basic Non-attainment |
| CO | Attainment |
| Lead | Attainment |

- (a) Volatile organic compounds (VOC) and nitrogen oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Greene County has been designated as non-attainment for the 8-hour ozone standards. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (b) Greene County has been classified as unclassifiable or attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. See the State Rule Applicability for the source section.
- (c) Greene 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. See the State Rule Applicability for the source section.

Air Quality Impacts from Minor Source

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

Modeling Results – Criteria Pollutants: The modeling results indicate that the Limited PTE criteria pollutants from this source will not exceed the National Ambient Air Quality Standard (NAAQs).

Source Status

New Source PSD Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

| Pollutant | Emissions (tons/yr) |
|------------------|---------------------|
| PM | 38.1 |
| PM10 | 37.2 |
| SO ₂ | 0.06 |
| VOC | 0.5 |
| CO | 7.83 |
| NO _x | 9.32 |
| Single HAP | 0.17 |
| Combination HAPs | 0.18 |

This new source is not a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater, no nonattainment pollutant is emitted at a rate of 100 tons per year or greater, and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2 and 2-3, the PSD and Emission Offset requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons per year.

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this permit.
- (b) This source is not subject to the requirements of New Source Performance Standard for Grain Emissions, (326 IAC 12) (40 CFR 60, Subpart DD), because the storage capacity of the grain silos is less than 1 million U.S. bushels.
- (c) The 6.28 MMBtu/hour natural gas-fired boiler is not subject to the requirements of the New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units (326 IAC 12, 40 CFR 60, Subpart Dc), because this boiler has a maximum design input capacity less than 10 MMBtu/hr.
- (d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) included in this permit.
- (e) The 6.28 MMBtu/hour natural gas-fired boiler (B1) is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. This source is a minor source for HAPs.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This source is not in one of the twenty eight source categories. This source will be constructed in 2005. The PTE for PM, PM10, PM2.5, SO₂, and CO is less than 250 tons per year. This source is a minor source under PSD.

326 IAC 2-3 (Emission Offset)

This source is located in Greene County. Greene County was designated as a nonattainment area for the 8-hour ozone standard on June 15, 2004. The potential to emit of VOC and NO_x of this source is less than 100 tons per year. Therefore, this source is a minor source under Emission Offset.

326 IAC 2-6 (Emission Reporting)

This source is located in Greene County and the potential to emit of PM, PM10, PM2.5, SO₂, VOC, NO_x, and CO is less than one hundred (100) tons per year. This source is not required to operate under a Part 70 permit. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

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

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

326 IAC 6-4 (Fugitive Dust Emissions)

The source is subject to 326 IAC 6-4 (Fugitive Dust Emissions) because the source maintains paved and unpaved roads and parking lots with public access. Pursuant to 326 IAC 6-4, the Permittee shall not generate fugitive dust to the extent that some portion of the material escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.

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

The source is located in Greene County, was constructed after December 13, 1985 and does not have the potential to emit equal to or greater than 25 tons per year of fugitive particulate emissions. Therefore, the source is not subject to the requirements of 326 IAC 6-5.

State Rule Applicability – Individual Facilities

326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating)

The 6.28 MMBtu/hour natural gas-fired boiler (B1) is subject to the requirements of 326 IAC 6-2-4 because this boiler is located in Greene county, combusts fuel for indirect heating, and will be constructed after September 21, 1983. Pursuant to 326 IAC 6-2-4(a), the particulate emissions from the boiler shall be limited by the following:

$$Pt = \frac{1.09}{Q^{0.25}} = \frac{1.09}{1.58} = 0.69 \text{ lb/MMBtu}$$

Where: Pt = emission rate limit (lbs/MMBtu)
Q = total source heat input capacity (MMBtu/hr)

However, 326 IAC 6-2-4(a) also states that if Q is less than 10 MMBtu/hr, Pt shall not exceed 0.6. Therefore, the PM emission limit for the boiler (B1) is 0.6 lbs/MMBtu.

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

Pursuant to 326 IAC 6-3-2, the particulate emissions from the grain processing and handling facilities at this source shall be limited as shown in the following table:

| Emissions Unit Description | Emission Unit ID # | Maximum Process Weight (tons/hour) | 326 IAC 6-3-2 Allowable Particulate Emissions (lbs/hour) |
|-----------------------------------|--------------------|------------------------------------|--|
| Grain Receiving | GR1 | 240 | 60.5 |
| Grain Handling | GH1 | 30.0 | 40.0 |
| Pericarp Collection/Waste Loading | WSH1 | 0.5 | 2.6 |
| Lime Loading Vacuum Blower | LLVB1 | 0.20 | 1.39 |
| Dehydration Cyclone #1 | DEHYDC1 | 4.58 | 11.4 |
| Dehydration Cyclone #2 | DEHYDC2 | 4.58 | 11.4 |
| Cooling Cyclone # 1 | COOLC1 | 4.58 | 11.4 |
| Cooling Cyclone # 2 | COOLC2 | 6.87 | 14.9 |
| Coarse Particles Vacuum Blower | CPVB1 | 2.29 | 7.1 |
| Fine Particles Vacuum Blower | FPVB1 | 4.58 | 11.4 |
| Finish Product Loading 1 | FPH1 | 8.25 | 16.9 |
| Finish Product Loading 2 | FPH2 | 3.84 | 10.1 |

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

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

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

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

The cyclones and filters shall be in operation at all times the above listed facilities are in operation, in order to comply with this limit.

Compliance Requirements

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

The emission units identified as GR1, GH1, DEHYDC1, DEHYDC2, COOLC1, COOLC2, FPVB1, FPH1 and FPH2, have applicable compliance monitoring conditions as specified below:

- (a) Visible emission notations of the stack exhausts (CYC1, DEHYDC1, DEHYDC2, COOLC1, COOLC2, FPVB1, FPH1 and FPH2) shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.
- (b) The Permittee shall record the total static pressure drop across the baghouses used in conjunction with FPVB1 and the finished product loading operations (FPH1 and FPH2), at least once per day when these processes are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is

outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. 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 - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

- (c) An inspection shall be performed each calendar quarter of all bags and filters controlling FPVB1 and the finished product loading operations (FPH1 and FPH2). A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. Inspections required by this condition shall not be performed in consecutive months. All defective bags and filters shall be repaired or replaced.
- (d) In the event that bag failure has been observed:
 - (1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 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.
 - (2) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced.
- (e) An inspection shall be performed each calendar quarter of cyclone CYC1. Inspections required by this condition shall not be performed in consecutive months. In the event that cyclone failure has been observed, the failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a deviation from this permit.

These monitoring conditions are necessary because the cyclones and baghouses must operate properly to ensure compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes).

Note: Monitoring is not required for the dehydration and cooling cyclones (DEHYDC1, DEHYDC2, COOL1, COOL2). These cyclones are process devices, not control devices, and the actual emissions are less than 25 tons per year.

Conclusion

The construction and operation of this stationary wet corn milling and corn flour production facility shall be subject to the conditions of the New Source Construction and Minor Source Operating Permit 055-21006-00039.

**Appendix A: Emissions Calculations
PM and PM10 Emissions from Grain and Lime Handling**

**Company Name: Corn Flour Producers, LLC
Address: Rural Route 2, Box 376, Worthington, Indiana 47471
NSC/MSOP: 055-21006-00039
Reviewer: ERG/ST
Date: June 9, 2005**

| Emissions Unit Description | Maximum Throughput (tons/hour) | PM Emission Factor (lbs/ton) | PM10 Emission Factor (lbs/ton) | Control Device(s) | Collection and Control Efficiency (%) | PTE of PM Before Control (tons/year) | PTE of PM10 Before Control (tons/year) | PTE of PM After Control (tons/year) | PTE of PM10 After Control (tons/year) |
|--------------------------------|--------------------------------|------------------------------|--------------------------------|--------------------------------|---------------------------------------|--------------------------------------|--|-------------------------------------|---------------------------------------|
| Grain Receiving - Hopper Truck | 4.58 | 0.035 | 0.0078 | High Efficiency Cyclone (CYC1) | 90.0% | 0.70 | 0.16 | 0.070 | 0.016 |
| Grain Cleaning/Handling | 4.58 | 0.061 | 0.034 | | 97.5% | 1.22 | 0.68 | 0.031 | 0.017 |
| Pericarp | 0.09 | 0.061 | 0.034 | | 97.5% | 0.02 | 0.00 | 0.001 | 0.000 |
| Lime Loading | 0.167 | 2.9E-05 | 2.9E-05 | 2 Filters in series | 99.9% | Integral to Process | | 0.000 | 0.000 |

The entire process is bottlenecked by the macerator, which has a maximum process rate of 4.583 tons of corn flour per hour.

Emission factors for grain are from AP 42, Chapter 9.9, Table 9.9.1-1 "Particulate Emission Factors for Grain Elevators" (SCC 3-02-005052, SCC 3-02-005-30) (4/03).

Emission factor for lime is from AP 42, Chapter 11.6, Table 11.6-4 "Limestone Transfer with Fabric Filter" (SCC 3-05-006-12) (1/95).

Internal handling of whole corn grain consists of transporting grain from corn dump pit to storage silos and then to measurement hopper (2 legs).

Methodology

PTE of PM/PM10 Before Control (tons/year) = Maximum Throughput (tons/year) x Emission factor (lbs/ton) x 8760 (hours/year) x 1 ton/2,000 lbs

PTE of PM/PM10 After Control (tons/year) = Maximum Throughput (tons/year) x Emission factor (lbs/ton) x 8760 (hours/year) x 1 ton/2,000 lbs x (1 - Control Efficiency (%))

Appendix A: Emission Calculations
PM and PM10 Emissions from Grain Processing, Conveying and Packaging Operations

Company Name: Corn Flour Producers, LLC
Address: Rural Route 2, Box 376, Worthington, Indiana 47471
NSC/MSOP: 055-21006-00039
Reviewer: ERG/ST
Date: June 9, 2005

| Unit ID | Control Device (Integral to Process) * | Outlet Grain Loading (gr/dscf) | Maximum Air Flow Rate (scfm) | Control Efficiency (%) | PTE of PM/PM10 (lbs/hour) | PTE of PM/PM10 (tons/year) |
|---------------------------|---|-----------------------------------|---------------------------------|---------------------------|------------------------------|-------------------------------|
| Dehydration Cyclone #1 | High Efficiency Cyclone | 0.010 | 21,800 | 99.98% | 1.87 | 8.18 |
| Dehydration Cyclone #2 | High Efficiency Cyclone | 0.004 | 21,800 | 99.98% | 0.75 | 3.27 |
| Cooling Cyclone # 1 | High Efficiency Cyclone | 0.003 | 17,400 | 99.98% | 0.45 | 1.96 |
| Cooling Cyclone # 2 | High Efficiency Cyclone | 0.003 | 17,400 | 99.98% | 0.45 | 1.96 |
| Coarse Particles Blower | 2 Filters in series | 0.202 | 400 | 99.99% | 0.69 | 3.03 |
| Fine Particles Blower | 2 Filters in series | 1.213 | 400 | 99.99% | 4.16 | 18.2 |
| Flour Storage Silo # 1 | Bin Filter | 0.002 | 430 | 99.99% | 0.01 | 0.0 |
| Flour Storage Silo # 2 | Bin Filter | 0.002 | 430 | 99.99% | 0.01 | 0.0 |
| Finish Product Hopper # 1 | Bin Filter | 0.002 | 1,000 | 99.99% | 0.02 | 0.1 |
| Finish Product Hopper # 2 | Bin Filter | 0.002 | 1,000 | 99.99% | 0.017 | 0.1 |
| Total | | | | | | 36.8 |

Assume all PM emissions equal PM10 emissions.

* All blowers, cyclones and filters listed on this page are used for pneumatic conveyance, product/product separation or air/product separation. All are integral to process.

The entire process is bottlenecked by the macerator, which has a maximum process rate of 4.583 tons per hour.

Methodology

PTE of PM/PM10 (tons/year) = Grain Loading (gr/dscf) x Max. Air Flow Rate (scfm) x 60 mins/hour x 1/7000 lbs/gr x 8760 hours/year x 1 ton/2000 lbs

Appendix A: Emission Calculations
Combustion Emissions from the Natural Gas-fired Boiler and Space Heaters

Company Name: Corn Flour Producers, LLC
Address: Rural Route 2, Box 376, Worthington, Indiana 47471
NSC/MSOP: 055-21006-00039
Reviewer: ERG/ST
Date: June 9, 2005

| Description | Emission Unit ID | Heat Input Capacity (MMBtu/hour) | Max. Potential Throughput (MMCF/year) |
|-------------------------------|------------------|----------------------------------|---------------------------------------|
| Natural Gas Boiler | Boiler # 1 | 6.28 | 55.0 |
| Natural Gas Corn Slurry Dryer | NG Dryer # 1 | 9.00 | 78.8 |
| Natural Gas Corn Slurry Dryer | NG Dryer # 2 | 6.00 | 52.6 |

| Pollutant Emission Factors (lbs/MMCF) | | | | | | |
|---------------------------------------|-------|-----------------|--------------------|------|-----|------|
| PM* | PM10* | SO ₂ | NO _x ** | CO | VOC | HAPs |
| 7.6 | 7.6 | 0.6 | 100 | 84.0 | 5.5 | 1.89 |

| Emission Unit ID | Potential To Emit (tons/year) | | | | | | |
|------------------|-------------------------------|-------------|-----------------|-----------------|-------------|-------------|-------------|
| | PM | PM10 | SO ₂ | NO _x | CO | VOC | HAPs |
| Boiler # 1 | 0.21 | 0.21 | 0.02 | 2.75 | 2.31 | 0.15 | 0.05 |
| NG Dryer # 1 | 0.30 | 0.30 | 0.02 | 3.94 | 3.31 | 0.22 | 0.07 |
| NG Dryer # 2 | 0.20 | 0.20 | 0.02 | 2.63 | 2.21 | 0.14 | 0.05 |
| Totals | 0.71 | 0.71 | 0.06 | 9.32 | 7.83 | 0.51 | 0.18 |

*PM and PM10 emission factor are for condensable and filterable PM and PM10 combined.

**Emission Factors for NO_x: Uncontrolled = 100

Emission Factors from AP-42, Chapter 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, 1.4-3 and 1.4-4. SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03. (AP-42 Supplement D 7/98)

All Emission factors are based on normal firing.

1 MMCF = 1,000 MMBtu

Methodology

Max. Potential Throughput (MMCF/year) = Heat Input Capacity (MMBtu/hour) x 8,760 hours/year x 1 MMCF/1,000 MMBtu.

PTE (tons/year) = Throughput (MMCF/year) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs

**Appendix A: Emissions Calculations
PM and PM10 Emissions From the Grain Handling, Storage and Drying Processes
Compliance with 326 IAC 6-3-2**

**Company Name: Corn Flour Producers, LLC
Address: Rural Route 2, Box 376, Worthington, Indiana 47471
NSC/MSOP: 055-21006-00039
Reviewer: ERG/ST
Date: June 9, 2005**

Allowable Emissions Under 326 IAC 6-3-2

| Emissions Unit Description | Maximum Process Weight (tons/hour) | PTE of PM Before Control (lbs/hour) | PTE of PM10 Before Control (lbs/hour) | PTE of PM After Control (lbs/hour) | PTE of PM10 After Control (lbs/hour) | 326 IAC 6-3-2 Allowable Particulate Emissions (lbs/hour) |
|-----------------------------------|------------------------------------|-------------------------------------|---------------------------------------|------------------------------------|--------------------------------------|--|
| Grain Receiving - Hopper Truck | 240 | 0.16 | 0.04 | 0.02 | 0.004 | 60.5 |
| Grain Cleaning/Handling | 30.0 | 0.28 | 0.16 | 0.01 | 0.004 | 40.0 |
| Pericarp Separator Discharge | 0.09 | 0.01 | 0.00 | 0.00 | 0.000 | 0.8 |
| Lime Handling | 0.10 | Integral to Process | | 0.0000 | 0.0000 | 0.9 |
| Dehydration Cyclone #1 | 4.58 | Integral to Process | | 1.87 | 1.87 | 11.4 |
| Dehydration Cyclone #2 | 4.58 | Integral to Process | | 0.75 | 0.75 | 11.4 |
| Cooling Cyclone # 1 | 4.58 | Integral to Process | | 0.45 | 0.45 | 11.4 |
| Cooling Cyclone # 2 | 6.87 | Integral to Process | | 0.45 | 0.45 | 14.9 |
| Coarse Particles Blower | 2.29 | Integral to Process | | 0.69 | 0.69 | 7.1 |
| Fine Particles Blower | 4.58 | Integral to Process | | 4.16 | 4.16 | 11.4 |
| Flour Storage Silo # 1 | 4.58 | Integral to Process | | 0.01 | 0.01 | 11.4 |
| Flour Storage Silo # 2 | 4.58 | Integral to Process | | 0.01 | 0.01 | 11.4 |
| Storage Finish Product Hopper # 1 | 4.58 | Integral to Process | | 0.02 | 0.02 | 11.4 |
| Storage Finish Product Hopper # 2 | 4.58 | Integral to Process | | 0.02 | 0.02 | 11.4 |

The entire process is bottlenecked by the macerator, which has a maximum process rate of 4.583 tons of corn flour per hour. Allowable emissions under 326 IAC 6-3-2 are calculated using the equation

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

where

E = rate of emission in pounds per hour and

P = process weight rate in tons per hour

**Appendix A: Emission Calculations
Fugitive Emissions From Paved Roads**

Company Name: Corn Flour Producers, LLC
Address: Rural Route 2, Box 376, Worthington, Indiana 47471
NSC/MSOP: 055-21006-00039
Reviewer: ERG/ST
Date: June 9, 2005

1. Emission Factors:

According to AP-42, Chapter 13.2.1 - Paved Roads (12/03), the PM/PM10 emission factors for paved roads can be estimated from the following equation:

$$E = k \times (sL/2)^a \times (w/3)^b - C$$

where:

E = emission factor (lb/vehicle mile traveled)
sL = road surface silt loading (g/m²) = 0.6 (g/m²) (AP-42, Table 13.2.1-3)
w = mean vehicle weight (tons) = 8.8 tons (see the calculations below)
k = empirical constant = 0.082 for PM and 0.016 for PM10
a = empirical constant = 0.65
b = empirical constant = 1.5
C = emission factor for vehicle exhaust, etc. = 0.00047 for PM and PM10 (AP-42, Table 13.2.1-2)

PM Emission Factor = $0.082 \times (0.6/2)^{0.65} \times (8.8/3)^{1.5} - 0.00047$ = **0.19 lbs/mile**

PM10 Emission Factor = $0.016 \times (0.6/2)^{0.65} \times (8.8/3)^{1.5} - 0.00047$ = **0.04 lbs/mile**

length of paved roads in one direction = **0.095 mile**

2. Potential to Emit (PTE) of PM/PM10 from Paved Roads:

| Vehicle Type | * Vehicles per day | *Average Vehicle Weight | * Total Trip Number | Traffic Component | Component Vehicle Weight | Vehicle Mile Traveled (VMT) | PTE of PM | PTE of PM10 |
|--------------------------|--------------------|-------------------------|---------------------|-------------------|--------------------------|-----------------------------|-------------|-------------|
| | | (tons) | (trips/year) | (%) | (tons) | (miles/year) | (tons/year) | (tons/year) |
| Hopper Truck | 5 | 27 | 1,825 | 14.3% | 3.86 | 347 | 0.03 | 0.01 |
| Semi Trailers (shipping) | 5 | 27 | 1,825 | 14.3% | 3.86 | 347 | 0.03 | 0.01 |
| Passenger Vehicle | 25 | 1.5 | 9,125 | 71.4% | 1.07 | 1,734 | 0.16 | 0.03 |
| Total | 35 | | | 100% | 8.79 | 2,427 | 0.23 | 0.04 |

* This information is provided by the source.

Methodology

Component Vehicle Weight = Average Vehicle Weight (tons) x Traffic Component (%)
(Note that the summation of the component vehicle weight equals the Mean Vehicle Weight.)
VMT(miles/year) = 0.1 mile/trip x 2 x Total Trip Numbers (trips/year)
PTE of PM/PM10 (tons/year) = VMT (miles/year) x Emission Factor (lbs/mile) x 1 ton/ 2000 lbs

**Appendix A: Emission Calculations
Fugitive Emissions From Unpaved Roads**

Company Name: Corn Flour Producers, LLC
Address: Rural Route 2, Box 376, Worthington, Indiana 47471
NSC/MSOP: 055-21006-00039
Reviewer: ERG/ST
Date: June 9, 2005

1. Emission Factors: AP-42

According to AP-42, Chapter 13.2.2 - Unpaved Roads (12/03), the PM/PM10 emission factors for unpaved roads can be estimated from the following equation:

$$E = k \times (s/12)^a \times (w/3)^b \times ((365 - p)/365)$$

where:

E = emission factor (lb/vehicle mile traveled)
s = surface material silt content (%) = 6.4 % (AP-42, Table 13.2.2-1)
w = mean vehicle weight (tons) = 27.0 tons
k = empirical constant = 4.9 for PM and 1.5 for PM10
a = empirical constant = 0.7 for PM and 0.9 for PM10
b = empirical constant = 0.45 for PM and PM10
p = number of days per year with 0.01 inches precipitation 120

PM Emission Factor = $4.9 \times (6.4/12)^{0.7} \times (14.1/3)^{0.45} \times ((365 - p)/365) =$ **5.69 lbs/mile**

PM10 Emission Factor = $1.5 \times (6.4/12)^{0.9} \times (14.1/3)^{0.45} \times ((365 - p)/365) =$ **1.54 lbs/mile**

Length of Unpaved Roads in One Direction = **0.095 miles**

2. Potential to Emit (PTE) of PM/PM10 Before Control from Unpaved Roads:

| Vehicle Type | *Trucks per day | Average Vehicle Weight (tons) | Total Trip Number (trips/year) | Traffic Component (%) | Component Vehicle Weight (tons) | Vehicle Mile Traveled (VMT) (miles/year) | PTE of PM (tons/year) | PTE of PM10 (tons/year) |
|--------------|-----------------|-------------------------------|--------------------------------|-----------------------|---------------------------------|--|-----------------------|-------------------------|
| Hopper Truck | 5 | 27 | 1,825 | 100% | 27.0 | 347 | 0.99 | 0.27 |
| Total | 5 | | | 100% | 27.0 | 347 | 0.99 | 0.27 |

* This information is provided by the source.

Methodology

Average Vehicle Weight (ton) = (Weight of Unloaded Vehicles + Weight of Loaded Vehicles) / 2

Total Trip Number (trips/yr) = Trucks per day x 365 (days/year)

Traffic Component (%) = Trucks per Day (by type) / Total Trucks per Day

Component Vehicle Weight = Avg. Vehicle Weight (tons) x Traffic Component (%)

(Note that the summation of the component vehicle weight equals the Mean Vehicle Weight.)

VMT(miles/year) = Length of Unpaved Roads in One Direction (miles) x 2 x Total Trip Numbers (trips/year)

PTE of PM/PM10 (tons/year) = VMT (miles/year) x PM/PM10 Emission Factors (lbs/mile) x 1 ton/ 2000 lbs