



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

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

TO: Interested Parties / Applicant

DATE: April 28, 2009

RE: Pioneer Hi-Bred Intl. / 099-27410-00029

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

## Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures  
FNPER.dot12/03/07



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**New Source Review and Federally Enforceable State  
Operating Permit  
OFFICE OF AIR QUALITY**

**Pioneer Hi-Bred International, Inc.  
2300 Pioneer Drive  
Plymouth, Indiana 46563**

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

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

Operation Permit No.: F 099-27410-00029	
Issued by:  Alfred C. Dumauval, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: April 28, 2009  Expiration Date: April 28, 2014

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## SECTION A SOURCE SUMMARY

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

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

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The Permittee owns and operates a stationary seed corn processing facility.

Source Address:	2300 Pioneer Drive, Plymouth, Indiana 46563
Mailing Address:	2300 Pioneer Drive, Plymouth, Indiana 46563
General Source Phone Number:	(574) 936-3243
SIC Code:	5153
County Location:	Marshall
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

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

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

- (a) One (1) natural gas-fired ear corn dryer, identified as dryer 1, constructed in 1988, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to stack (SV dryer 1).
- (b) One (1) natural gas-fired ear corn dryer, identified as dryer 2, constructed in 1988, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to stack (SV dryer 2).
- (c) One (1) natural gas-fired ear corn dryer, identified as dryer 3, constructed in 1988, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to stack (SV dryer 3).
- (d) One (1) natural-gas fired ear corn dryer, identified as dryer 4, constructed in 1993, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to stack (SV dryer 4).
- (e) One (1) natural-gas fired ear corn dryer, identified as dryer 5, approved for construction in 2009, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to stack (SV dryer 5).
- (f) Two (2) green corn dump pits, identified as dump pit north and dump pit south, constructed in 1988, each with a maximum throughput of 2,000 bushels per hour, with fugitive emissions exhausting to the atmosphere.
- (g) One corn dump pit, identified as bulk dump pit, constructed in 1989, with a maximum throughput of 3,000 bushels per hour, using a baghouse, identified as CD05, as a control, and exhausting indoors.

- (h) One corn dump pit, identified as agra dump pit, approved for construction in 2009, with a maximum throughput of 3,000 bushels per hour, using a baghouse, identified as CD08, as a control, and exhausting indoors.
- (i) Headhouse and grain handling consisting of the following:
  - (1) Two (2) husking and sorting lines, each line containing nine (9) units, identified as sorting lines 1 and 2, constructed in 1988, each line with a maximum throughput of 2,000 bushels per hour, and exhausting indoors.
  - (2) One (1) bagged seed corn area, identified as corn rework, constructed in 1991, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD04, as a control, and exhausting indoors.
  - (3) Ten (10) precision sizers, identified as sizers 1 through 10, constructed in 1989, each with a maximum throughput of 100 bushels per hour, using a baghouse, identified as CD06, as a control, and exhausting indoors.
  - (4) Nine (9) gravity separators, identified as separators 1 through 9, used to remove damaged seed, constructed in 1989, each with a maximum throughput of 110 bushels per hour, using nine (9) baghouses, collectively identified as CD03, as controls, and exhausting indoors.
  - (5) One (1) drum style seed treater, identified as treater 1, used to apply seed treatment to seed corn, constructed in 1989, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD04, as a control, and exhausting indoors.
  - (6) One (1) continuous batch style seed treater, identified as treater 2, used to apply seed treatment to seed corn, constructed in 2004, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD04, as a control, and exhausting indoors.
  - (7) Enclosed transfer points, identified as enclosed, constructed in 1988, with a maximum throughput of 5,000 bushels per hour, using a baghouse, identified as CD05, as a control, and exhausting indoors.
  - (8) One (1) blending system, identified as blending, approved for construction in 2009, consisting of one (1) unloading station, two (2) blending surge bins, two (2) weigh belts, and a blended product elevator, with a maximum throughput of 2,000 bushels per hour, using a baghouse, identified as CD07, as a control, and exhausting indoors.
- (j) Grain Cleaning consisting of the following:
  - (1) Two (2) corn sheller and cleaner units, identified as sheller north and sheller south, constructed in 1988 with a maximum throughput of 2,500 bushels per hour, using two (2) baghouses, identified as CD01, as controls, and exhausting indoors.
  - (2) One (1) aspirator, identified as aspirator, used for seed corn cleaning, constructed in 1989, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD02, as a control, and exhausting indoors.
  - (3) One (1) treater aspirator, identified as treater aspirator, used to clean seed corn prior to treatment, constructed in 1989, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD04, as a control, and exhausting indoors.

- (k) Grain Storage consisting of the following:
- (1) Two (2) cob storage bins, identified as cob bin 1 and 2, constructed in 1988, each with a storage capacity of about 1,500 bushels, and exhausting indoors.
  - (2) One (1) discard bin, identified as discard bin, constructed in 1989, with a storage capacity of 1,500 bushels, and exhausting indoors.
  - (3) Sixteen (16) kernel size bins, identified as kernel bins 1 through 16, constructed in 1989, each with a storage capacity of 1,000 bushels of kernels, using a baghouse, identified as CD06, as a control, and exhausting indoors.
  - (4) Seven (7) treated corn packaging bins, identified as treated bins 1 through 7, constructed in 1989, four (4) with a storage capacity of 1,000 bushels of treated corn and three (3) with a storage capacity of 500 bushels of treated corn, using a baghouse, identified as CD04, as a control, and exhausting indoors.
  - (5) One (1) bulk storage building, identified as North Bulk Storage, constructed in 1989, with a maximum storage capacity of 370,000 bushels, using a baghouse, identified as CD08, as a control, exhausting to stack (SV bulk 1), and containing the following:
    - (A) Thirteen (13) storage bins, identified as Bins B-501 through B-512 and B-525, each with a storage capacity of 20,000 bushels.
    - (B) Ten (10) storage bins, identified as Bins B-513 through B-522, each with a storage capacity of 10,000 bushels.
    - (C) Two (2) storage bins, Bins B-523 and B-524, each with a storage capacity of 5,000 bushels.
  - (6) One (1) bulk storage building, identified as South Bulk Storage, constructed in 1989, with a maximum storage capacity of 370,000 bushels, using a baghouse, identified as CD08, as a control, exhausting to stack (SV bulk 1), and containing the following:
    - (A) Thirteen (13) storage bins, identified as Bins B-601 through B-612 and B-625, each with a storage capacity of 20,000 bushels.
    - (B) Ten (10) storage bins, identified as Bins B-613 through B-622, each with a storage capacity of 10,000 bushels.
    - (C) Two (2) storage bins, identified as Bins B-623 and B-624, each with a storage capacity of 5,000 bushels.
  - (7) One (1) bulk storage building, identified as Agra Bulk Storage, approved for construction in 2009, with a maximum storage capacity of 520,000 bushels, using a baghouse, identified as CD08, as a control, exhausting to stack (SV bulk 2), and containing the following:
    - (A) Twenty-six (26) storage bins, identified as Bins B-1 through B-13 and B-70 through B-82, each with a storage capacity of 10,000 bushels.
    - (B) Forty-eight (48) storage bins, identified as Bins B-16 through B-39 and B-44 through B-67, each with a storage capacity of 5,000 bushels.
    - (C) Eight (8) storage bins, identified as Bins B-14 and B-15, B-40 through 43 and B-68 and B-69, each with a storage capacity of 2,500 bushels.

- (l) Grain packaging consisting of the following:
  - (1) Two (2) untreated/treated corn packaging areas, identified as untreated/treated corn packaging, constructed in 1989, each with a maximum throughput of 1,500 bushels of seed per hour, using a baghouse, identified as CD04, as a control, and exhausting indoors.
  
- (m) Grain loadout consisting of the following:
  - (1) One (1) silage chopper loadout, identified as chopper loadout, used for chopping husk and rogue ears and loadout onto trucks, constructed in 1988, with a maximum throughput of 4,000 bushels per hour, with fugitive emissions exhausting to the atmosphere.
  - (2) One (1) cob loadout, identified as cob loadout, used for loadout of cob and bees wings from the sheller, constructed in 1988, with a maximum throughput of 5,000 bushels per hour, with fugitive emissions exhausting to the atmosphere.
  - (3) One (1) discard loadout, identified as discard loadout, used for loadout of damaged seeds, constructed in 1989, with a maximum throughput of 1,500 bushels per hour, with fugitive emissions exhausting to the atmosphere.
  - (4) One (1) bulk truck loadout, identified as bulk loadout, used for loadout of untreated seed corn, constructed in 1989 with a maximum throughput of 1,600 bushels per hour, with fugitive emissions exhausting to the atmosphere.
  - (5) One (1) bulk truck loadout, identified as Agra bulk loadout, used for loadout of untreated seed corn, approved for construction in 2009, with a maximum throughput of 3,000 bushels per hour, with fugitive emissions exhausting to the atmosphere.
  
- (n) Fugitive emissions from unpaved and paved roads and parking lots.

A.3 FESOP Applicability [326 IAC 2-8-2]

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

## **SECTION B GENERAL CONDITIONS**

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

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

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

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

### **B.3 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]**

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- (a) This permit, F 099-27410-00029, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

### **B.4 Term of Conditions [326 IAC 2-1.1-9.5]**

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

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

### **B.5 Enforceability [326 IAC 2-8-6] [IC 13-17-12]**

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

### **B.6 Severability [326 IAC 2-8-4(4)]**

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

### **B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]**

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

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

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- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of

requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.10 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

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

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
  - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**B.11 Compliance Order Issuance [326 IAC 2-8-5(b)]**

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

**B.12 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]**

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

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

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

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

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

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

**B.13 Emergency Provisions [326 IAC 2-8-12]**

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

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or  
Telephone Number: 317-233-0178 (ask for Compliance and Enforcement Branch)  
Facsimile Number: 317-233-6865  
Northern Regional Office phone: (574) 245-4870; fax: (574) 245-4877.

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

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

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

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

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

The notification which shall be submitted by the Permittee does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
  - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.14 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to F 099-27410-00029 and issued pursuant to permitting programs approved into the state implementation plan have been either:
  - (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

B.15 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.16 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

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

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

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

The Quarterly Deviation and Compliance Monitoring Report does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.17 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

- (1) That this permit contains a material mistake.
- (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
- (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.18 Permit Renewal [326 IAC 2-8-3(h)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3.

Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
  - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

**B.19 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]**

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

**B.20 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]**

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- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) without a prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

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

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

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b) through (d). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

- (b) Emission Trades [326 IAC 2-8-15(c)]  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

**B.21 Source Modification Requirement [326 IAC 2-8-11.1]**

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

B.22 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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

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

B.23 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

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

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

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

- (b) Failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.25 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

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

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

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

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

C.2 Overall Source Limit [326 IAC 2-8]

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

(a) Pursuant to 326 IAC 2-8:

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

(b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

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

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

C.3 Opacity [326 IAC 5-1]

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

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

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

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

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

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

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

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

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

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

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

All required notifications shall be submitted to:

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

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

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

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

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

---

- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

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

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

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

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

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

#### **C.10 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]**

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

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

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

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

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

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

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

#### **C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]**

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- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

**Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

**C.13 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]**

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

**C.14 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]**

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

**C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]**

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

The response action documents submitted pursuant to this condition do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

**C.16 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]**

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance or ninety (90) days of initial start-up, whichever is later.

**C.17 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]**

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or

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

- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

### **Stratospheric Ozone Protection**

#### **C.18 Compliance with 40 CFR 82 and 326 IAC 22-1**

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

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

## SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (a) One (1) natural gas-fired ear corn dryer, identified as dryer 1, constructed in 1988, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to stack (SV dryer 1).
- (b) One (1) natural gas-fired ear corn dryer, identified as dryer 2, constructed in 1988, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to stack (SV dryer 2).
- (c) One (1) natural gas-fired ear corn dryer, identified as dryer 3, constructed in 1988, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to stack (SV dryer 3).
- (d) One (1) natural-gas fired ear corn dryer, identified as dryer 4, constructed in 1993, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to stack (SV dryer 4).
- (e) One (1) natural-gas fired ear corn dryer, identified as dryer 5, approved for construction in 2009, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to stack (SV dryer 5).
- (f) Two (2) green corn dump pits, identified as dump pit north and dump pit south, constructed in 1988, each with a maximum throughput of 2,000 bushels per hour, with fugitive emissions exhausting to the atmosphere.
- (g) One corn dump pit, identified as bulk dump pit, constructed in 1989, with a maximum throughput of 3,000 bushels per hour, using a baghouse, identified as CD05, as a control, and exhausting indoors.
- (h) One corn dump pit, identified as agra dump pit, approved for construction in 2009, with a maximum throughput of 3,000 bushels per hour, using a baghouse, identified as CD08, as a control, and exhausting indoors.
- (i) Headhouse and grain handling consisting of the following:
  - (1) Two (2) husking and sorting lines, each line containing nine (9) units, identified as sorting lines 1 and 2, constructed in 1988, each line with a maximum throughput of 2,000 bushels per hour, and exhausting indoors.
  - (2) One (1) bagged seed corn area, identified as corn rework, constructed in 1991, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD04, as a control, and exhausting indoors.
  - (3) One (1) drum style seed treater, identified as treater 1, used to apply seed treatment to seed corn, constructed in 1989, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD04, as a control, and exhausting indoors.

- (4) One (1) continuous batch style seed treater, identified as treater 2, used to apply seed treatment to seed corn, constructed in 2004, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD04, as a control, and exhausting indoors.
- (5) Enclosed transfer points, identified as enclosed, constructed in 1988, with a maximum throughput of 5,000 bushels per hour, using a baghouse, identified as CD05, as a control, and exhausting indoors.
- (6) One (1) blending system, identified as blending, approved for construction in 2009, consisting of one (1) unloading station, two (2) blending surge bins, two (2) weigh belts, and a blended product elevator, with a maximum throughput of 2,000 bushels per hour, using a baghouse, identified as CD07, as a control, and exhausting indoors.

(j) Grain Cleaning consisting of the following:

- (1) Two (2) corn sheller and cleaner units, identified as sheller north and sheller south, constructed in 1988 with a maximum throughput of 2,500 bushels per hour, using two (2) baghouses, identified as CD01, as controls, and exhausting indoors.
- (2) One (1) aspirator, identified as aspirator, used for seed corn cleaning, constructed in 1989, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD02, as a control, and exhausting indoors.
- (3) One (1) treater aspirator, identified as treater aspirator, used to clean seed corn prior to treatment, constructed in 1989, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD04, as a control, and exhausting indoors.

(k) Grain packaging consisting of the following:

- (1) Two (2) untreated/treated corn packaging areas, identified as untreated/treated corn packaging, constructed in 1989, each with a maximum throughput of 1,500 bushels of seed per hour, using a baghouse, identified as CD04, as a control, and exhausting indoors.

(l) Grain loadout consisting of the following:

- (1) One (1) silage chopper loadout, identified as chopper loadout, used for chopping husk and rogue ears and loadout onto trucks, constructed in 1988, with a maximum throughput of 4,000 bushels per hour, with fugitive emissions exhausting to the atmosphere.
- (2) One (1) cob loadout, identified as cob loadout, used for loadout of cob and bees wings from the sheller, constructed in 1988, with a maximum throughput of 5,000 bushels per hour, with fugitive emissions exhausting to the atmosphere.
- (3) One (1) discard loadout, identified as discard loadout, used for loadout of damaged seeds, constructed in 1989, with a maximum throughput of 1,500 bushels per hour, with fugitive emissions exhausting to the atmosphere.
- (4) One (1) bulk truck loadout, identified as bulk loadout, used for loadout of untreated seed corn, constructed in 1989 with a maximum throughput of 1,600 bushels per hour, with fugitive emissions exhausting to the atmosphere.

(5) One (1) bulk truck loadout, identified as Agra bulk loadout, used for loadout of untreated seed corn, approved for construction in 2009 with a maximum throughput of 3,000 bushels per hour, with fugitive emissions exhausting to the atmosphere.

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

**Emission Limitations and Standards [326 IAC 2-6.1-5(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 from each process shall be limited by one of the following:

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:

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

or

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:

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

Emissions Units	Maximum (bushels/hr) for each unit of that type	Maximum Process Weight (tons/hour) <sup>1</sup> for each unit of that type	326 IAC 6-3 Allowable Emission Rate (lbs/hr) for each unit of that type
Grain Dryers (1 through 5)	1,200	48.75	44.34
Dump Pits (1 and 2)	2,000	81.25	49.22
Bulk Dump Pit	3,000	84.00	49.54
Agra Dump Pit	3,000	84.00	49.54
Husking and Sorting Lines (1 and 2)	2,000	81.25	49.22
Corn Rework	1,200	33.60	40.96
Drum Style Seed Treater	1,200	33.60	40.96
Batch Seed Treater	1,200	33.60	40.96
Enclosed Transfer Points	5,000	140.00	54.72
Blending System	2,000	56.00	45.64
Two (2) Sheller and Cleaners (north and south)	2,500	101.56	51.43
Aspirator	1,200	33.60	40.96
Treater Aspirator	1,200	33.60	40.96
Two (2) Packaging Areas (untreated and treated)	1,500	42.00	42.97
Silage Chopper Loadout	4,000	112.00	52.42
Cob Loadout	5,000	140.00	54.72
Discard Loadout	1,500	42.00	50.16
Bulk Loadout	1,600	44.80	43.56
Agra Dump Loadout	3,000	84.00	48.54

<sup>1</sup>Maximum Process Weight (tons/hour) calculated assuming 81.25 pounds per bushel for all units handling corn still on the cob: Dump Pits (1 and 2), Husking and Sorting Lines (1 and 2), Grain Dryers (1 through 5), and Sheller and Cleaners (north and south). All other units handle shelled corn for which a conversion of 56 pounds per bushel is assumed.

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

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the Grain Dryers (1 through 5), the two (2) seed treaters and the following control devices: CD01, CD02, CD03, CD04, CD05, CD06, CD07, and CD08.

### Compliance Determination Requirements

#### D.1.3 Particulate Control

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- (a) In order to comply with Condition D.1.1, the baghouse, identified as CD01, for particulate control shall be in operation and control emissions from the two (2) sheller and cleaners at all times the two (2) sheller and cleaners are in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

#### D.1.4 Parametric Monitoring

---

- (a) The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the grain receiving, internal handling, grain drying and grain shipping facilities, at least once per day when the grain receiving, internal handling, grain drying and grain shipping facilities is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 5.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

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

#### D.1.5 Record Keeping Requirements

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- (a) To document compliance with Condition D.1.4, the Permittee shall maintain records once per day of the pressure drop across each baghouse. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the process did not operate that day).
- (b) 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:

- (a) Headhouse and grain handling consisting of the following:
- (1) One (1) drum style seed treater, identified as treater 1, used to apply seed treatment to seed corn, constructed in 1989, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD04 as a control, and exhausting indoors.
  - (2) One (1) continuous batch style seed treater, identified as treater 2, used to apply seed treatment to seed corn, constructed in 2004, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD04 as a control, and exhausting indoors.

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

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.2.1 VOC Limits [326 IAC 2-8] [326 IAC 8-1-6]

- (a) In order to render the requirements of 326 IAC 2-7 (Part 70 Permit Program) not applicable, the Permittee shall comply with the following:

The two (2) seed treaters, identified as treater 1 and treater 2, shall use less than 50.0 tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month, including coatings, dilution solvents, and cleaning solvents.

Compliance with the above limit, combined VOC emissions from other emission units at the source, shall limit VOC emissions from the entire source to less than 100 tons per twelve (12) consecutive month period and render 326 IAC 2-7 not applicable.

- (b) In order to render the requirements of 326 IAC 8-1-6 (New facilities; general reduction requirements) not applicable, the Permittee shall comply with the following:

The drum style seed treater, identified as treater 1, shall use less than twenty-five (25) tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month, including coatings, dilution solvents, and cleaning solvents. Compliance with this limit renders the provisions of 326 IAC 8-1-6 (New Facilities; VOC Reduction Requirements) not applicable.

The continuous batch style seed treater, identified as treater 2, shall use less than twenty-five (25) tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month, including coatings, dilution solvents, and cleaning solvents. Compliance with this limit renders the provisions of 326 IAC 8-1-6 (New Facilities; VOC Reduction Requirements) not applicable.

## Compliance Determination Requirements

### D.2.2 Volatile Organic Compounds (VOC)[326 IAC 8-1-2] [326 IAC 8-1-4]

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Compliance with the VOC usage limit contained in Condition D.2.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

## Record Keeping Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

### D.2.3 Record Keeping Requirements

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- (a) To document compliance with condition D.2.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limit established in condition D.2.1.
- (1) The VOC content of each coating material and solvent used.
  - (2) The amount of coating material and solvent used on a monthly basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
  - (3) The total VOC usage for each month for each seed treater, and for both seed treaters combined.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### D.2.4 Reporting Requirements

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A quarterly summary of the information to document compliance with condition D.2.1 shall be submitted to the addresses listed in Section C - General Reporting requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

### SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

#### Emissions Unit Description:

- (a) One (1) natural gas fired ear corn dryer, identified as dryer 1, constructed in 1988, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to stack (SV dryer 1).
- (b) One (1) natural gas fired ear corn dryer, identified as dryer 2, constructed in 1988, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to stack (SV dryer 2).
- (c) One (1) natural gas fired ear corn dryer, identified as dryer 3, constructed in 1988, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to stack (SV dryer 3).
- (d) One (1) natural gas fired ear corn dryer, identified as dryer 4, constructed in 1993, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to stack (SV dryer 4).
- (e) One (1) natural gas fired ear corn dryer, identified as dryer 5, approved for construction in 2009, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to stack (SV dryer 5).

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

#### Emission Limitations and Standards [326 IAC 2-8-4(1)]

##### D.3.1 FESOP Limit [326 IAC 2-8]

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), the combined natural gas fuel usage for the five (5) natural gas fired ear corn dryers, identified as dryer 1 through dryer 5, shall be less than 885.6 million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with this limit shall limit the source-wide NO<sub>x</sub> and CO emissions to less than 100 tons per 12 consecutive month period, each, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) not applicable.

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

##### D.3.2 Record Keeping Requirements

- (a) To document compliance with Condition D.3.1, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the fuel and process gas usage limits established in Condition D.3.1.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Actual natural gas usage per month for the five (5) natural gas fired ear corn dryers, identified as dryer 1 through dryer 5, since last compliance determination period;

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

#### D.3.3 Reporting Requirements

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A quarterly summary of the information to document compliance with Condition D.3.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

Source Name: Pioneer Hi-Bred International, Inc.  
Source Address: 2300 Pioneer Drive, Plymouth, Indiana 46563  
Mailing Address: 2300 Pioneer Drive, Plymouth, Indiana 46563  
FESOP Permit No.: F 099-27410-00029

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
Phone: (317) 233-0178  
Fax: (317) 233-6865**

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

Source Name: Pioneer Hi-Bred International, Inc.  
Source Address: 2300 Pioneer Drive, Plymouth, Indiana 46563  
Mailing Address: 2300 Pioneer Drive, Plymouth, Indiana 46563  
FESOP Permit No.: F 099-27410-00029

**This form consists of 2 pages**

**Page 1 of 2**

- |   |
|---|
| <input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) <ul style="list-style-type: none"><li>• The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and</li><li>• The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16</li></ul> |
|---|

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

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

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

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_

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

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

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

A certification is not required for this report.

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

**FESOP Quarterly Report**

Source Name: Pioneer Hi-Bred International, Inc.  
Source Address: 2300 Pioneer Drive, Plymouth, Indiana 46563  
Mailing Address: 2300 Pioneer Drive, Plymouth, Indiana 46563  
FESOP Permit No.: F 099-27410-00029  
Facility: Drum style seed treater, identified as treater 1  
Parameter: VOC Usage  
Limit: Less than 25 tons per twelve consecutive month period.

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

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

Attach a signed certification to complete this report.

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

**FESOP Quarterly Report**

Source Name: Pioneer Hi-Bred International, Inc.  
Source Address: 2300 Pioneer Drive, Plymouth, Indiana 46563  
Mailing Address: 2300 Pioneer Drive, Plymouth, Indiana 46563  
FESOP Permit No.: F 099-27410-00029  
Facility: Continuous batch style seed treater, identified as treater 2  
Parameter: VOC Usage  
Limit: Less than 25 tons per twelve consecutive month period.

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

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

Attach a signed certification to complete this report.

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

**FESOP Quarterly Report**

Source Name: Pioneer Hi-Bred International, Inc.  
Source Address: 2300 Pioneer Drive, Plymouth, Indiana 46563  
Mailing Address: 2300 Pioneer Drive, Plymouth, Indiana 46563  
FESOP Permit No.: F 099-27410-00029  
Facility: Two (2) seed treaters, identified as treater 1 and treater 2  
Parameter: VOC Usage  
Limit: Less than 50 tons per twelve consecutive month period.

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

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

Attach a signed certification to complete this report.

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

**FESOP Quarterly Report**

Source Name: Pioneer Hi-Bred International, Inc.  
Source Address: 2300 Pioneer Drive, Plymouth, Indiana 46563  
Mailing Address: 2300 Pioneer Drive, Plymouth, Indiana 46563  
FESOP Permit No.: F 099-27410-00029  
Facility: Five (5) natural gas fired ear corn dryers (dryer 1 through dryer 5)  
Parameter: Natural gas usage  
Limit: Less than 885.6 million cubic feet per twelve (12) consecutive month period

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

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

Attach a signed certification to complete this report.

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

Source Name: Pioneer Hi-Bred International, Inc.  
 Source Address: 2300 Pioneer Drive, Plymouth, Indiana 46563  
 Mailing Address: 2300 Pioneer Drive, Plymouth, Indiana 46563  
 FESOP Permit No.: F 099-27410-00029

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

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

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

Form Completed by: \_\_\_\_\_

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

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

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

Attach a signed certification to complete this report.

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

Addendum to the Technical Support Document (ATSD) New Source  
Review and Federally Enforceable State Operating Permit

**Source Background and Description**

<b>Source Name:</b>	<b>Pioneer Hi-Bred International, Inc.</b>
<b>Source Location:</b>	<b>2300 Pioneer Drive, Plymouth, Indiana 46563</b>
<b>County:</b>	<b>Marshall</b>
<b>SIC Code:</b>	<b>5153</b>
<b>Operation Permit No.:</b>	<b>F099-27410-00029</b>
<b>Permit Reviewer:</b>	<b>Sarah Conner, Ph. D.</b>

On March 28, 2009, the Office of Air Quality (OAQ) had a notice published in The Plymouth Pilot News, Plymouth, Indiana, stating that Pioneer Hi-Bred International, Inc. had applied for New Source Review and Federally Enforceable State Operating Permit (FESOP) related to the construction and operation of new emission units at an existing grain elevator and seed production facility and the continued operation of an existing grain elevator and seed production facility. The notice also stated that the OAQ proposed to issue a FESOP for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

**Comments and Responses**

On April 7, 2009, Pioneer Hi-Bred International, Inc. submitted comments to IDEM, OAQ on the draft FESOP renewal.

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

**Comment 1:**

Pioneer Hi-Bred International, Inc. requested a revision to section D.1.4 Parametric Monitoring in the draft permit. They requested that "the pressure drop across the baghouse is outside the normal range of 3.0 to 6.0 inches of water" be revised to a range of 1.0 to 5.0 inches of water.

**Response to Comment 1:**

OAQ Permits, in consultation with OAQ Compliance and Enforcement Branch, agrees with the recommended changes, since a range of 1.0 to 5.0 inches of water is acceptable. The permit has been revised as follows:

**D.1.4 Parametric Monitoring**

- 
- (a) The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the grain receiving, internal handling, grain drying and grain shipping facilities, at least once per day when the grain receiving, internal handling, grain drying and grain shipping facilities is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of ~~3.0~~**1.0** and ~~6.0~~**5.0** inches of water or a range established during the latest stack test, the Permittee shall take reasonable

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

<b>IDEM Contact</b>
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- (a) Questions regarding this proposed New Source Review and MSOP can be directed to Sarah Conner, Ph. D. at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-6555 or toll free at 1-800-451-6027 extension 4-6555.
- (b) A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.idem.in.gov](http://www.idem.in.gov)

## Indiana Department of Environmental Management Office of Air Quality

### Technical Support Document (TSD) for a New Source Review and Federally Enforceable State Operating Permit (FESOP)

#### Source Description and Location

<b>Source Name:</b>	<b>Pioneer Hi-Bred International, Inc.</b>
<b>Source Location:</b>	<b>2300 Pioneer Drive, Plymouth, Indiana 46563</b>
<b>County:</b>	<b>Marshall</b>
<b>SIC Code:</b>	<b>5153</b>
<b>Operation Permit No.:</b>	<b>F 099-27410-00029</b>
<b>Permit Reviewer:</b>	<b>Sarah Conner, Ph. D.</b>

On January 26, 2009, the Office of Air Quality (OAQ) received an application from Pioneer Hi-Bred International, Inc. related to the construction and operation of new emission units at an existing grain elevator and seed production facility and the continued operation of an existing grain elevator and seed production facility.

#### Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) Construction permit No. PC (50) 1787, issued on September 8, 1989 and;
- (b) Operation Permit No. 50-09-93-0142, issued on September 22, 1989.

The operating permit expired on September 1, 1993. Due to this application, the source is applying for a FESOP.

#### County Attainment Status

The source is located in Marshall County.

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O <sub>3</sub>	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard. <sup>1</sup>
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Not designated.
<sup>1</sup> Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM2.5.	

- (a) **Ozone Standards**  
 Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Marshall County has been designated as

attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) PM2.5

Marshall County has been classified as attainment for PM2.5. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM2.5 emissions, and the effective date of these rules was July 15<sup>th</sup>, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM10 emissions as a surrogate for PM2.5 emissions until 326 IAC 2-2 is revised.

(c) Other Criteria Pollutants

Marshall County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

### Fugitive Emissions

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

### Background and Description of Permitted Emission Units

The Office of Air Quality (OAQ) has reviewed an application, submitted by Pioneer Hi-Bred International, Inc. on January 26, 2009, relating to construction and operation of new emission units at an existing grain elevator and seed production facility and the continued operation of an existing grain elevator and seed production facility.

The source consists of the following permitted emission units:

- (a) One (1) natural gas-fired ear corn dryer, identified as dryer 1, constructed in 1988, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to stack (SV dryer 1).
- (b) One (1) natural gas-fired ear corn dryer, identified as dryer 2, constructed in 1988, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to stack (SV dryer 2).
- (c) One (1) natural gas-fired ear corn dryer, identified as dryer 3, constructed in 1988, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to stack (SV dryer 3).
- (d) One (1) natural gas-fired ear corn dryer, identified as dryer 4, constructed in 1993, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to stack (SV dryer 4).
- (e) Two (2) green corn dump pits, identified as dump pit north and dump pit south, constructed in 1988, each with a maximum throughput of 2,000 bushels per hour, with fugitive emissions exhausting to the atmosphere.
- (f) One corn dump pit, identified as bulk dump pit, constructed in 1989, with a maximum throughput of 3,000 bushels per hour, using a baghouse, identified as CD05, as a control, and exhausting indoors.

(g) Headhouse and grain handling consisting of the following:

- (1) Two (2) husking and sorting lines, each line containing nine (9) units, identified as sorting lines 1 and 2, constructed in 1988, each line with a maximum throughput of 2,000 bushels per hour, and exhausting indoors.
- (2) One (1) bagged seed corn area, identified as corn rework, constructed in 1991, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD04, as a control, and exhausting indoors.
- (3) Ten (10) precision sizers, identified as sizers 1 through 10, constructed in 1989, each with a maximum throughput of 100 bushels per hour, using a baghouse, identified as CD06, as a control, and exhausting indoors.
- (4) Nine (9) gravity separators, identified as separators 1 through 9, used to remove damaged seed, constructed in 1989, each with a maximum throughput of 110 bushels per hour, using nine (9) baghouses, collectively identified as CD03, as controls, and exhausting indoors.
- (5) One (1) drum style seed treater, identified as treater 1, used to apply seed treatment to seed corn, constructed in 1989, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD04, as a control, and exhausting indoors.
- (6) Enclosed transfer points, identified as enclosed, constructed in 1988, with a maximum throughput of 5,000 bushels per hour, using a baghouse, identified as CD05, as a control, and exhausting indoors.

(h) Grain Cleaning consisting of the following:

- (1) Two (2) corn sheller and cleaner units, identified as sheller north and sheller south, constructed in 1988 with a maximum throughput of 2,500 bushels per hour, using two (2) baghouses, identified as CD01, as controls, and exhausting indoors.
- (2) One (1) aspirator, identified as aspirator, used for seed corn cleaning, constructed in 1989, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD02, as a control, and exhausting indoors.
- (3) One (1) treater aspirator, identified as treater aspirator, used to clean seed corn prior to treatment, constructed in 1989, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD04, as a control, and exhausting indoors.

(i) Grain Storage consisting of the following:

- (1) Two (2) cob storage bins, identified as cob bin 1 and 2, constructed in 1988, each with a storage capacity of about 1,500 bushels, and exhausting indoors.
- (2) One (1) discard bin, identified as discard bin, constructed in 1989, with a storage capacity of 1,500 bushels, and exhausting indoors.
- (3) Sixteen (16) kernel size bins, identified as kernel bins 1 through 16, constructed in 1989, each with a storage capacity of 1,000 bushels of kernels, using a baghouse, identified as CD06, as a control, and exhausting indoors.

- (4) Seven (7) treated corn packaging bins, identified as treated bins 1 through 7, constructed in 1989, four (4) with a storage capacity of 1,000 bushels of treated corn and three (3) with a storage capacity of 500 bushels of treated corn, using a baghouse, identified as CD04, as a control, and exhausting indoors.
- (5) One (1) bulk storage building, identified as North Bulk Storage, constructed in 1989, with a maximum storage capacity of 370,000 bushels, using a baghouse, identified as CD08, as a control, exhausting to stack (SV bulk 1), and containing the following:
  - (A) Thirteen (13) storage bins, identified as Bins B-501 through B-512 and B-525, each with a storage capacity of 20,000 bushels.
  - (B) Ten (10) storage bins, identified as Bins B-513 through B-522, each with a storage capacity of 10,000 bushels.
  - (C) Two (2) storage bins, Bins B-523 and B-524, each with a storage capacity of 5,000 bushels.
- (6) One (1) bulk storage building, identified as South Bulk Storage, constructed in 1989, with a maximum storage capacity of 370,000 bushels, using a baghouse, identified as CD08, as a control, exhausting to stack (SV bulk 1), and containing the following:
  - (A) Thirteen (13) storage bins, identified as Bins B-601 through B-612 and B-625, each with a storage capacity of 20,000 bushels.
  - (B) Ten (10) storage bins, identified as Bins B-613 through B-622, each with a storage capacity of 10,000 bushels.
  - (C) Two (2) storage bins, identified as Bins B-623 and B-624, each with a storage capacity of 5,000 bushels.
- (j) Grain packaging consisting of the following:
  - (1) Two (2) untreated/treated corn packaging areas, identified as untreated/treated corn packaging, constructed in 1989, each with a maximum throughput of 1,500 bushels of seed per hour, using a baghouse, identified as CD04, as a control, and exhausting indoors.
- (k) Grain loadout consisting of the following:
  - (1) One (1) silage chopper loadout, identified as chopper loadout, used for chopping husk and rogue ears and loadout onto trucks, constructed in 1988, with a maximum throughput of 4,000 bushels per hour, with fugitive emissions exhausting to the atmosphere.
  - (2) One (1) cob loadout, identified as cob loadout, used for loadout of cob and bees wings from the sheller, constructed in 1988, with a maximum throughput of 5,000 bushels per hour, with fugitive emissions exhausting to the atmosphere.
  - (3) One (1) discard loadout, identified as discard loadout, used for loadout of damaged seeds, constructed in 1989, with a maximum throughput of 1,500 bushels per hour, with fugitive emissions exhausting to the atmosphere.

- (4) One (1) bulk truck loadout, identified as bulk loadout, used for loadout of untreated seed corn, constructed in 1989 with a maximum throughput of 1,600 bushels per hour, with fugitive emissions exhausting to the atmosphere.
- (l) Fugitive emissions from unpaved and paved roads and parking lots.

<b>New Emission Units and Pollution Control Equipment</b>
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The following is a list of the new emission unit(s) and pollution control device(s) approved for construction and operation:

- (a) One (1) natural gas-fired ear corn dryer, identified as dryer 5, approved for construction in 2009, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to stack (SV dryer 5).
- (b) One corn dump pit, identified as agra dump pit, approved for construction in 2009, with a maximum throughput of 3,000 bushels per hour, using a baghouse, identified as CD08, as a control, and exhausting indoors.
- (c) Headhouse and grain handling consisting of the following:
  - (1) One (1) blending system, identified as blending, approved for construction in 2009, consisting of one (1) unloading station, two (2) blending surge bins, two (2) weigh belts, and a blended product elevator, with a maximum throughput of 2,000 bushels per hour, using a baghouse, identified as CD07, as a control, and exhausting indoors.
- (d) Grain Storage consisting of the following:
  - (1) One (1) bulk storage building, identified as Agra Bulk Storage, approved for construction in 2009, with a maximum storage capacity of 520,000 bushels, using a baghouse, identified as CD08, as a control, exhausting to stack (SV bulk 2), and containing the following:
    - (A) Twenty-six (26) storage bins, identified as Bins B-1 through B-13 and B-70 through B-82, each with a storage capacity of 10,000 bushels.
    - (B) Forty-eight (48) storage bins, identified as Bins B-16 through B-39 and B-44 through B-67, each with a storage capacity of 5,000 bushels.
    - (C) Eight (8) storage bins, identified as Bins B-14 and B-15, B-40 through 43 and B-68 and B-69, each with a storage capacity of 2,500 bushels.
- (e) Grain loadout consisting of the following:
  - (1) One (1) bulk truck loadout, identified as Agra bulk loadout, used for loadout of untreated seed corn, approved for construction in 2009, with a maximum throughput of 3,000 bushels per hour, with fugitive emissions exhausting to the atmosphere.

### Unpermitted Emission Units and Pollution Control Equipment

The source consists of the following unpermitted emission unit(s):

- (a) Headhouse and grain handling consisting of the following:
  - (1) One (1) continuous batch style seed treater, identified as treater 2, used to apply seed treatment to seed corn, constructed in 2004, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD04, as a control, and exhausting indoors.

### Enforcement Issues

Pioneer Hi-Bred International, Inc. was issued a previous construction permit No. PC (50) 1787 for a seed corn conditioning facility, including unloading, husking and sorting, pre-cleaning, drying, shelling and storage, issued on September 8, 1989. In addition, Pioneer Hi-Bred International, Inc. was issued an operating permit No. 50-09-93-0142 for a seed corn conditioning facility, including unloading, husking and sorting, pre-cleaning, drying, shelling and storage, issued on September 22, 1989.

The operating permit No. 50-09-93-0142 for a seed corn conditioning facility, including unloading, husking and sorting, pre-cleaning, drying, shelling and storage, expired on September 1, 1993. The source did not apply for a Part 70 Permit or a FESOP by December 14, 1996, pursuant to 326 IAC 2-7-4(a)(1)(A)(i) and 326 IAC 2-8-2(a), respectively, for any existing source that did not have a valid air operating permit.

On January 26, 2009, IDEM, OAQ received an application for New Source Review and Federally Enforceable State Operating Permit (FESOP) from Pioneer Hi-Bred International, Inc. for their seed corn conditioning facility, including unloading, husking and sorting, pre-cleaning, drying, shelling and storage. All existing units at this source have been operating without a valid operating permit since December 14, 1996. The continuous batch style seed treater was constructed and operated without prior approval.

IDEM is reviewing these matters and will take appropriate action. This proposed approval is intended to satisfy the requirements of the operating permit rules.

### Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

### Permit Level Determination – FESOP

The following table reflects the unlimited potential to emit (PTE) of the entire source before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	148.89
PM10 <sup>(1)</sup>	56.09
PM2.5	17.71
SO <sub>2</sub>	0.79
NO <sub>x</sub>	131.40
VOC	154.39
CO	110.38

(1) Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter

(PM), is considered as a "regulated air pollutant".

HAPs	Potential To Emit (tons/year)
Hexane	2.365
Ethylene Glycol	1.09
Formaldehyde	0.099
Toluene	0.004
Benzene	0.003
Nickel	0.003
Chromium	0.002
Dichlorobenzene	0.002
Cadmium	0.001
All other Single HAPs	negligible
<b>TOTAL HAPs</b>	<b>3.57</b>

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(29)) of pollutants NO<sub>x</sub> and CO is greater than one hundred (100) tons per year. The PTE of all other regulated criteria pollutants are less than one hundred (100) tons per year. The source would have been subject to the provisions of 326 IAC 2-7. However, the source will be issued a Federally Enforceable State Operating Permit (FESOP) (326 IAC 2-8), because the source will limit emissions to less than the Title V major source threshold levels.
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

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

The table below summarizes the potential to emit of the entire source after issuance of this FESOP, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this FESOP, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of FESOP (tons/year)								
	PM	PM10	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Total HAPs	Worst Single HAP
Natural Gas Combustion	0.84	3.37	3.37	0.27	44.28	2.44	37.20	1.05	1.05 (Hexane)
Packaging	3.49	1.18	0.20	-	-	-	-	-	-
Headhouse and Grain Handling	28.25	15.75	2.69	-	-	-	-	-	-
Grain Drying	8.94	2.23	0.38	-	-	-	-	-	-
Grain Cleaning	91.41	23.16	3.90	-	-	-	-	-	-
Grain Storage	4.06	1.02	0.18	-	-	-	-	-	-
Seed Treater	-	-	-	-	-	<50.0	-	0.27	0.27 (Ethylene Glycol)
Fugitive Emissions from Roads, Receiving, and Loadout operations	7.45	1.82	0.22	-	-	-	-	-	-
<b>Total PTE of Entire Source</b>	147.24	49.46	11.09	0.27	44.28	<52.4	37.20	2.19	1.09 (Ethylene Glycol)
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	NA	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	NA	NA	NA	NA	NA	NA	NA
negl. = negligible * Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".									

(a) FESOP Status

This existing source is not a Title V major stationary source, because the potential to emit pollutants NO<sub>x</sub>, CO, and VOC will be limited to less than the Title V major source threshold levels.

In addition all other criteria pollutants from the entire source are less than the Title V major source threshold levels and this existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the potential to emit HAPs is less than ten (10) tons per year for a single HAP and twenty-five (25) tons per year of total HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act and is subject to the provisions of 326 IAC 2-8 (FESOP).

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), the combined natural gas fuel usage for the five (5) natural gas fired ear corn dryers, identified as dryer 1 through dryer 5, shall be less than 885.6 million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month.

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), the two (2) seed treaters, identified as treater 1 and treater 2, shall use less than fifty (50) tons of VOC total per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits shall limit the source-wide total NO<sub>x</sub>, CO and VOC emissions to less than 100 tons per 12 consecutive month period, each, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) not applicable.

- (b) PSD Minor Source  
This existing source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit all attainment regulated pollutants are less than 250 tons per year, and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

#### **Federal Rule Applicability Determination**

##### New Source Performance Standards (NSPS)

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) included in the permit.
- (b) The requirements of the New Source Performance Standard for Grain Elevators, 40 CFR 60, Subpart DD, are not included in the permit for the grain elevator because it has a permanent storage capacity less than 2.5 million U.S. bushels. The maximum capacity of the source is less than 1.3 million U.S. bushels.

##### National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

##### Compliance Assurance Monitoring (CAM)

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

#### **State Rule Applicability Determination**

The following state rules are applicable to the source:

##### 326 IAC 2-8-4 (FESOP)

FESOP applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP section above.

##### 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))

PSD applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP section above.

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

This source is not subject to the requirements of 326 IAC 2-4.1, since the unlimited potential to emit of HAPs from the entire source is less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs.

326 IAC 2-6 (Emission Reporting)

Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), the source is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

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

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

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

The grain dryers are not subject to the requirements of 326 IAC 6-2, because they are not sources of indirect heating.

326 IAC 6-4 (Fugitive Dust Emissions Limitations)

The source is subject to the requirements of 326 IAC 6-4, because the source has the potential to emit fugitive particulate emissions from unpaved roads, green corn dump pits and all loadout operations. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.

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

The source is not subject to the requirements of 326 IAC 6-5, because combined potential fugitive emissions from the unpaved roads, green corn dump pits and all loadout operations at the source are less than 25 tons per year.

Grain Elevator Operations

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

Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from each of the listed emission units shall be limited by the following:

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:

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

or

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:

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

Emissions Units	Maximum (bushels/hr) for each unit of that type	Maximum Process Weight (tons/hour) <sup>1</sup> for each unit of that type	326 IAC 6-3 Allowable Emission Rate (lbs/hr) for each unit of that type	Maximum Particulate Emissions before control (lb/hour)
Grain Dryers (1 through 5)	1,200	48.75	44.34	10.73
Dump Pits (1 and 2)	2,000	81.25	49.22	2.84
Bulk Dump Pit	3,000	84.00	49.54	2.94
Agra Dump Pit	3,000	84.00	49.54	2.94
Husking and Sorting Lines (1 and 2)	2,000	81.25	49.22	4.96
Corn Rework	1,200	33.60	40.96	2.05
Drum Style Seed Treater	1,200	33.60	40.96	2.05
Batch Seed Treater	1,200	33.60	40.96	2.05
Enclosed Transfer Points	5,000	140.00	54.72	26.47
Blending System	2,000	56.00	45.64	13.66
Two (2) Sheller and Cleaners (north and south)	2,500	101.56	51.43	76.17
Aspirator	1,200	33.60	40.96	25.20
Treater Aspirator	1,200	33.60	40.96	25.20
Two (2) Packaging Areas (untreated and treated)	1,500	42.00	42.97	3.61
Silage Chopper Loadout	4,000	112.00	52.42	4.82
Cob Loadout	5,000	140.00	54.72	6.02
Discard Loadout	1,500	42.00	50.16	3.61
Bulk Loadout	1,600	44.80	43.56	3.85
Agra Dump Loadout	3,000	84.00	48.54	7.22

<sup>1</sup>Maximum Process Weight (tons/hour) calculated assuming 81.25 pounds per bushel for all units handling corn still on the cob: Dump Pits (1 and 2), Husking and Sorting Lines (1 and 2), Grain Dryers (1 through 5), and Sheller and Cleaners (north and south). All other units handle shelled corn for which a conversion of 56 pounds per bushel is assumed.

The facilities with potential particulate emissions less than 0.551 lbs per hour include the following: precision sizers and gravity separator bins. Therefore, pursuant to 326 IAC 6-3-1(14), these facilities are not subject to the requirements of 326 IAC 6-3.

In order to comply with 326 IAC 6-3 the baghouses for particulate control shall be in operation and control emissions from the two (2) sheller and cleaners at all times the two (2) sheller and cleaners are in operation.

Baghouses are used to control particulate from the following emission units: bulk dump pit, agra dump pit, corn rework, precision sizers, gravity separator bins, drum style seed treater, batch style seed treater, enclosed transfer points, blending system, aspirator, treater aspirator, bulk storage buildings, kernel bins, treated corn packaging bins, untreated and treated, and packaging areas; however these facilities are able to comply with 326 IAC 6-3 without the use of baghouses.

### Seed Treater

#### 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)

- (a) The drum style seed treater, identified as treater 1, shall use less than twenty-five (25) tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month, including coatings, dilution solvents, and cleaning solvents. Compliance with this limit renders the provisions of 326 IAC 8-1-6 (New Facilities; VOC Reduction Requirements) not applicable.

- (b) The continuous batch style seed treater, identified as treater 2, shall use less than twenty-five (25) tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month, including coatings, dilution solvents, and cleaning solvents. Compliance with this limit renders the provisions of 326 IAC 8-1-6 (New Facilities; VOC Reduction Requirements) not applicable.

There are no other 326 IAC 8 Rules that are applicable to the seed treaters.

<b>Conclusion and Recommendation</b>
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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 January 26, 2009.

The construction and operation of this source shall be subject to the conditions of the attached proposed New Source Review and FESOP No. F099-27410-00029. The staff recommends to the Commissioner that this New Source Review and FESOP be approved.

<b>IDEM Contact</b>
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- (a) Questions regarding this proposed permit can be directed to Sarah Conner, Ph. D. at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-6555 or toll free at 1-800-451-6027 extension 4-6555.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.idem.in.gov](http://www.idem.in.gov)

**Appendix A: Emissions Calculations  
Summary**

**Company Name:** Pioneer Hi-Bred International, Inc.  
**Address City IN Zip:** 2300 Pioneer Drive, Plymouth, Indiana 46563  
**Permit Number:** F099-27410-00029  
**Reviewer:** Sarah Conner, Ph. D.  
**Date:** 2/24/2008

**Uncontrolled Potential Emissions (tons/year)**

Pollutant	Emissions Generating Activity												TOTAL PTE w/out fugitives	TOTAL PTE	TOTAL PTE with Limits
	Natural Gas Combustion - PTE	**Natural Gas Combustion - Limited PTE	Grain Receiving	Grain Shipping and Packaging	Headhouse and Grain Handling	Grain Drying	Grain Cleaning	Grain storage	Seed Treaters	Mitigated Unpaved Roads	Mitigated Paved Roads				
PM	2.50	0.84	2.13	6.64	28.25	8.94	91.41	4.06	-	3.25	1.73	141.44	148.89	147.24	
PM10	9.99	3.37	0.49	2.24	15.75	2.23	23.16	1.02	-	0.88	0.34	54.27	56.09	49.46	
*PM2.5	9.99	3.37	0.06	0.38	2.69	0.38	3.90	0.18	-	0.09	0.05	17.49	17.71	11.09	
SO2	0.79	0.27	-	-	-	-	-	-	-	-	-	0.79	0.79	0.27	
NOx	131.40	44.28	-	-	-	-	-	-	-	-	-	131.40	131.40	44.28	
VOC	7.23	2.44	-	-	-	-	-	-	147.17	-	-	154.39	154.39	<52.44	
CO	110.38	37.20	-	-	-	-	-	-	-	-	-	110.38	110.38	37.20	
total HAPs	2.48	1.10	-	-	-	-	-	-	1.09	-	-	3.57	3.57	2.19	
worst case single HAP	2.37 (Hexane)	1.05 (Hexane)	-	-	-	-	-	-	1.09 (Ethylene Glycol)	-	-	2.37 (Hexane)	2.37 (Hexane)	1.09 (Ethylene Glycol)	

Total PTE based on rated capacity at 8,760 hours/year.

Total Limited PTE based on Total PTE with 2,952 hours/year for each dryer.

\* For Unpaved and Paved Roads, mitigated emission factors were used.

**Controlled Potential Emissions (tons/year)**

Pollutant	Emissions Generating Activity												TOTAL controlled PTE w/out fugitives	TOTAL controlled PTE	TOTAL controlled PTE with Limits
	Natural Gas Combustion - PTE	**Natural Gas Combustion - Limited PTE	Grain Receiving	Grain Shipping and Packaging	Headhouse and Grain Handling	Grain Drying	Grain Cleaning	Grain storage	***Seed Treaters	Controlled Unpaved Roads	Mitigated Paved Roads				
PM	2.50	0.84	0.74	1.81	0.28	0.00	0.91	4.06	-	0.06	1.73	9.22	12.10	10.44	
PM10	9.99	3.37	0.17	0.61	0.16	0.00	0.23	1.02	-	0.02	0.34	11.89	12.53	5.91	
*PM2.5	9.99	3.37	0.02	0.10	0.03	0.00	0.04	0.18	-	0.00	0.05	10.31	10.41	3.79	
SO2	0.79	0.27	-	-	-	-	-	-	-	-	-	0.79	0.79	0.27	
NOx	131.40	44.28	-	-	-	-	-	-	-	-	-	131.40	131.40	44.28	
VOC	7.23	2.44	-	-	-	-	-	-	<50.00	-	-	107.23	57.23	<52.44	
CO	110.38	37.20	-	-	-	-	-	-	-	-	-	110.38	110.38	37.20	
total HAPs	2.48	1.10	-	-	-	-	-	-	1.09	-	-	3.57	3.57	2.19	
worst case single HAP (Hexane)	2.37 (Hexane)	1.05 (Hexane)	-	-	-	-	-	-	1.09 (Ethylene Glycol)	-	-	2.37 (Hexane)	2.37 (Hexane)	1.09 (Ethylene Glycol)	

Total PTE based on rated capacity at 8,760 hours/year, after control.

\* For Unpaved and Paved Roads, mitigated emission factors were used.

\*\*Total Limited PTE based on natural gas usage limitation of 885.6 MMcF per year for all five dryers.

\*\*\* Total Limited PTE from two (2) Seed Treaters based on total usage of less than fifty (50) tons of VOC total per twelve (12) consecutive month period.

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

Company Name: Pioneer Hi-Bred International, Inc.  
Address City IN Zip: 2300 Pioneer Drive, Plymouth, Indiana 46563  
Permit Number: F099-27410-00029  
Reviewer: Sarah Conner, Ph. D.  
Date: 2/24/2008

Emision Unit	Seed Additive	Additive Properties				Seed Production Data Annual Capacity tons/year	Additive Usage Data				Uncontrolled VOC Emissions PTE (tons/yr)	Uncontrolled HAP Emissions PTE (tons/yr)	
		Constituent	% by Weight	Density (lb/gal)	Emission factor (lb/gal)		Seed Additive Usage <sup>2</sup> ounce/ cwt	Seed Additive Usage <sup>2</sup> ounce/ ton	Annual Capacity gal/year	2008 Usage gal/yr			
Seed Treaters	Sekoa Red Seed Colorant	VOC	5.0%	9.18	0.46	65,000	0.33	6.6	3,352	681	0.77	-	
	Purple colorant	VOC	0.0%	10.2	0.00	65,000	0.50	10	5,078	142	0.00	-	
	Maxim	VOC	6.00%	9.18	0.55	65,000	0.17	3.34	1,696	-	0.47	-	
		Ethylene Glycol	6.00%	9.18	0.55	65,000	0.17	3.34	1,696	-	-	0.47	
	Dynasty		4.8%	8.68	0.42	65,000	0.00	0	-	-	0.00	-	
	Polymer (L250, L320, PSF 1007, PSF 1006)	VOC	0.0%	-	-	65,000	-	-	-	-	-	-	
	Poncho 600 <sup>1</sup>	VOC	20%	10.43	2.09	65,000	12.70	253.972	128,970	3,101	134.52	-	
	Cruiser 5FS Insecticide	VOC	2.6%	10.51	0.27	65,000	2.54	50.794	25,794	4,733	3.52	-	
	Pioneer Custom Blend (Dynasty)	VOC	5.5%	9.01	0.50	65,000	0.39	7.762	3,942	788	0.98	-	
		Ethylene Glycol	3.5%	9.01	0.32	65,000	0.39	7.762	3,942	788	-	0.62	
Raxil	VOC	20.0%	9.2	1.84	65,000	0.74	14.8	7,516	39	6.91	-		
<b>Total</b>												<b>147.17</b>	<b>1.09</b>
<sup>3</sup> Total Limited Emissions												<b>&lt;50.00</b>	<b>1.09</b>

## Methods:

Note 1. VOC content data not available. The maximum VOC content for the remaining additives was used.

Note 2. Usage based on seed treatment formula utilized at the plant

Emission factor = Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)

Annual Capacity in tons/year = Grain Product Throughput in tons/year

Annual Capacity in gal/year = Annual capacity in tons/year \* seed additive usage in ounce/ton \* (1 gal / 128 ounces)

Potential VOC or HAP Emissions in Tons per Year = (1 ton/2000 lbs) = Annual Capacity in gal/year \* Emission factor in lb/gal \* (1 ton /2000 lbs)

Note 3: In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), the two (2) seed treaters, identified as treater 1 and treater 2, shall use less than fifty (50) tons of VOC total per twelve (12) consecutive month period, with compliance determined at the end of each month.

In addition, treater 1 and treater 2 shall each use less than twenty-five (25) tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month, including coatings, dilution solvents, and cleaning solvents in order to render the provisions of 326 IAC 8-1-6 (New Facilities; VOC Reduction Requirements) not applicable.

**Appendix A: Emissions Calculations**  
**Grain Elevator**

**Company Name:** Pioneer Hi-Bred International, Inc.  
**Address City IN Zip:** 2300 Pioneer Drive, Plymouth, Indiana 46563  
**Permit Number:** F099-27410-00029  
**Reviewer:** Sarah Conner, Ph. D.  
**Date:** 2/24/2008

Grain	<sup>1</sup> bushels/year	bushels/hr	<sup>2</sup> lbs / bushel	lbs / hour	<sup>3</sup> Grain Throughput (tons/hr)	Grain Throughput (tons/year)
Corn	2,000,000	1374.77	81.25	111700	55.850	81250
Corn shipped equals 2MM bushels	2,000,000	1374.77	81.25	111700	55.850	81250
Total Grain Received (tons of grain handled or processed per hour) =					55.850	<b>81250</b>

Note 1: Total maximum amount of grain received per year equals 1 MM bushels based on actual production times 1.2.  
 Note 2: Assumes 81.25 lb/bushel based on green bushel at 12% moisture.  
 Note 3: Maximum hourly throughput based on dryer capacity is 11.17 ton/hr for each of the five dryers.

Unloading/Receiving		
<sup>4</sup> Hopper Truck (lb/ton)		
PM	PM-10	PM2.5
0.035	0.008	0.001

Drying		
Dryer		
PM	PM-10	PM2.5
0.22	0.055	0.0094

<sup>5</sup> Grain Cleaning		
PM	PM-10	PM2.5
0.75	0.19	0.032

Unloading/Receiving	PM	PM10	PM2.5
Green Corn	0.711	0.163	0.020
Shelled Corn	1.422	0.325	0.041
Total uncontrolled	2.133	0.488	0.061
Controlled (efficiency 99%)	0.739	0.169	0.021

Drying	PM	PM10	PM2.5
Total uncontrolled	8.938	2.234	0.382

Cleaning	PM	PM-10	PM2.5
Total uncontrolled	91.406	23.156	3.900
Control (efficiency 99%)	0.914	0.232	0.039

Note 5: The AP-42 factors were given with a cyclone, so assume a cyclone control of 90% to get uncontrolled emission factors. A multiply factor of 3 is used to account for emissions from all grain cleaning units - Two (2) Sheller/Cleaner, Aspirator, and Treater Aspirator.

Note 4: 100% of unloading is done through Hopper truck. 50% reduction for green corn unloading uncontrolled emissions due to inherent moisture content (green corn is still contained in husks and has a high moisture content). 98% control of shelled corn unloading emissions by baghouse.

<sup>6</sup> Headhouse and Grain Handling		
PM	PM-10	PM2.5
0.061	0.034	0.0058

<sup>7</sup> Storage		
PM	PM-10	PM2.5
0.025	0.0063	0.0011

<sup>8</sup> Shipping and packaging		
Truck (unspecified)		
PM	PM-10	PM2.5
0.086	0.029	0.0049

	PM	PM10	PM2.5
Corn	2.478	1.381	0.236
Total uncontrolled	28.251	15.746	2.686
Controlled (efficiency 99%)	0.283	0.157	0.027

storage uncontrolled	PM	PM10	PM2.5
	4.063	1.024	0.179

Note 7: A multiply factor of 4 is used to account for emissions from the 4 main storage units - bulk storage (North/South/Agra Bulk Storage), Kernel Size Bins, Blending System bins, and Treated and Untreated Corn Packaging Bins. Also, total green corn processing capacity is used to account for storage of all non-seed products including silage, cob, bees wing, and seed discard.

Shipping	PM	PM10	PM2.5
Corn by truck	2.795	0.943	0.159
<sup>9</sup> Corn Silage by chopper	0.087	0.029	0.005
<sup>9</sup> Corn loadout by cob or bees wing	0.262	0.088	0.015
Packaging	3.494	1.178	0.199
Total uncontrolled	6.638	2.238	0.378
Controlled (efficiency 50%)	1.813	0.611	0.103

Note 8: 100% of shipping is done by truck, only a portion of shipping is controlled. Corn by truck includes emissions from bulk and agra loading of trucks for untreated seed and seed discards and corn packing into bags and boxes.

Note 9: Since AP-42 does not have an emission factor for Silage chopper/loadout, cob loadout and bees wing loadout. It was estimated that Silage chopper/loadout, cob loadout, and bees wing loadout will all have 50% less PM emissions than the truck loadout. Assuming 5% of the green corn throughput is silage, and assuming 15% of the throughput is cobs going out and 1% of cobs is bees wing. 50% control of Corn by truck emissions by loading sock and 99% control of Packaging emissions by baghouse.

**Methodology**

Emission factors are from AP 42 Table 9.9.1-1 Particulate Emission Factors for Grain Elevators (3/03)

Potential Emissions (ton/yr) = Throughput (ton/yr) \* Emission factor (lb/ton) / 2000 (lbs/ton)

Controlled Potential Emissions (ton/yr) = Throughput (ton/yr) \* Emission factor (lb/ton) / 2000 (lbs/ton) \* (1-Control Efficiency)

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

**Company Name:** Pioneer Hi-Bred International, Inc.  
**Address City IN Zip:** 2300 Pioneer Drive, Plymouth, Indiana 46563  
**Permit Number:** F099-27410-00029  
**Reviewer:** Sarah Conner, Ph. D.  
**Date:** 2/24/2008

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	***Limited Potential Throughput MMCF/yr
300.0	2628.0	885.6
Capacity for all 5 Dryers at the facility		

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	PM2.5	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	2.50	9.99	9.99	0.79	131.40	7.23	110.38
***Limited Potential Emission in tons/yr	0.84	3.37	3.37	0.27	44.28	2.44	37.20

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.  
\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32  
\*\*\*Total Limited PTE based on natural gas usage limitation of 826.6 MMCF per year for all five dryers.

**Methodology**

All emission factors are based on normal firing.  
MMBtu = 1,000,000 Btu  
MMCF = 1,000,000 Cubic Feet of Gas  
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03  
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu  
Limited Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 2,952 hrs/yr x 1 MMCF/1,000 MMBtu  
Potential Emission (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton  
Limited Potential Emission (tons/yr) = Limited Potential Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See next page for HAPs emissions calculations.

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

**Company Name:** Pioneer Hi-Bred International, Inc.  
**Address City IN Zip:** 2300 Pioneer Drive, Plymouth, Indiana 46563  
**Permit Number:** F099-27410-00029  
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**Date:** 2/24/2008

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	0.003	0.002	0.099	2.365	0.004
***Limited Potential Emission in tons/yr	0.001	0.001	0.044	1.047	0.002

HAPs - Metals						
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total
Potential Emission in tons/yr	6.57E-04	0.001	0.002	4.99E-04	0.003	2.480
***Limited Potential Emission in tons/yr	2.91E-04	6.40E-04	8.15E-04	2.21E-04	1.22E-03	1.098

Methodology is the same as previous page.

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

\*\*\*Total Limited PTE based on natural gas usage limitation of 885.6 MMCF per year for all five dryers.

**Appendix A: Emissions Calculations  
Fugitive Dust Emissions - Unpaved Roads**

Company Name: Pioneer Hi-Bred International, Inc.  
Address City IN Zip: 2300 Pioneer Drive, Plymouth, Indiana 4656:  
Permit Number: F099-27410-00029  
Reviewer: Sarah Conner, Ph. D.  
Date: 2/24/2008

**Unpaved Roads at Industrial Site**

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (12/2003).

Maximum Annual Grain Received = 2,000,000 bushels/yr  
Bulk Density of Grain Received = 0.028 tons/bushel (0.028 tons/bushel for corn)  
Maximum Annual Grain Received = 56,000 tons/yr

Process	Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per year (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Receiving Truck Scale to Pit Entering Full	Truck	17.5	22.5	40.0	2488.89	99555.55556	1200	0.227	565.66
Receiving Truck Scale to Pit Leaving Empty	Truck	17.5	0	17.5	2488.89	43555.6	1200	0.227	565.66
<b>Total</b>					<b>4978</b>	<b>143111</b>			<b>1131.31</b>

Average Vehicle Weight Per Trip = 28.8 tons/trip  
Average Miles Per Trip = 0.227 miles/trip

Unmitigated Emission Factor, Ef = k\*[(s/12)^a]\*[(W/3)^b] (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	6.4	6.4	6.4	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-1 municipal solid waste landfills plant ro)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2)
W =	28.8	28.8	28.8	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E \* [(365 - P)/365]

Mitigated Emission Factor, Eext = E \* [(365 - P)/365]  
where P = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	8.73	2.36	0.24	lb/mile
Mitigated Emission Factor, Eext =	5.74	1.55	0.15	lb/mile
Dust Control Efficiency 1 =	90%	90%	90%	Chemical Stabilization OEPA RACM Guide (Section 2.1.1)
Dust Control Efficiency 2 =	80%	80%	80%	Speed Limit of 15 mph OEPA RACM Guide (Section 2.1.1)

Process	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Receiving Truck Scale to Pit Entering Full	Grain truck (650 bushel)	2.47	0.67	0.07	1.62	0.44	0.04	0.03	0.01	0.00
Receiving Truck Scale to Pit Leaving Empty	Grain truck (650 bushel)	2.47	0.67	0.07	1.62	0.44	0.04	0.03	0.01	0.00
<b>Totals</b>		<b>4.94</b>	<b>1.33</b>	<b>0.13</b>	<b>3.25</b>	<b>0.88</b>	<b>0.09</b>	<b>0.06</b>	<b>0.02</b>	<b>0.00</b>

**Methodology**

Maximum Annual Grain Throughput (tons/yr) = [Maximum Annual Grain Throughput (bushels/yr)] \* [Bulk Density of Grain (tons/bushel)]  
Maximum Weight of Vehicle and Load (tons/trip) = [Maximum Weight of Vehicle (tons/trip)] + [Maximum Weight of Load (tons/trip)]  
Maximum trips per year (trip/yr) = [Throughput (tons/yr)] / [Maximum Weight of Load (tons/trip)]  
Total Weight driven per year (ton/yr) = [Maximum Weight of Vehicle and Load (tons/trip)] \* [Maximum trips per year (trip/yr)]  
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]  
Maximum one-way miles (miles/yr) = [Maximum trips per year (trip/yr)] \* [Maximum one-way distance (mi/trip)]  
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per year (ton/yr)] / SUM[Maximum trips per year (trip/yr)]  
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/yr)] / SUM[Maximum trips per year (trip/yr)]  
Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) \* (Unmitigated Emission Factor (lb/mile)) \* (ton/2000 lbs)  
Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) \* (Mitigated Emission Factor (lb/mile)) \* (ton/2000 lbs)  
Controlled PTE (tons/yr) = (Mitigated PTE (tons/yr)) \* (1 - Dust Control Efficiency 1) \* (1 - Dust Control Efficiency 2)

**Abbreviations**

PM = Particulate Matter  
PM10 = Particulate Matter (<10 um)  
PM2.5 = Particulate Matter (<2.5 um)  
PTE = Potential to Emit

**Appendix A: Emissions Calculations  
Fugitive Dust Emissions - Paved Roads**

**Company Name: Pioneer Hi-Bred International, Inc.  
Address City IN Zip: 2300 Pioneer Drive, Plymouth, Indiana 46561  
Permit Number: F099-27410-00029  
Reviewer: Sarah Conner, Ph. D.  
Date: 2/24/2008**

**Unpaved Roads at Industrial Site**

The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (12/2003).

Maximum Annual Grain Received =  bushels/yr  
 Bulk Density of Grain Received =  tons/bushel (0.028 tons/bushel for corn)  
 Maximum Annual Grain Received =  tons/yr

Maximum Annual Grain Shipped =  bushels/yr  
 Bulk Density of Grain Shipped =  tons/bushel (0.028 tons/bushel for corn)  
 Maximum Annual Grain Shipped =  tons/yr

Process	Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per year (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Receiving Truck to Scale Entering Full	Truck	17.5	22.5	40.0	2488.89	99555.55556	1200	0.227	565.66
Receiving Truck from Scale Leave Empty	Truck	17.5	0	17.5	2488.89	43555.6	1200	0.227	565.66
Shipping Grain and Waste Truck Entering Empty	Truck	17.5	0	17.5	2488.89	43555.6	2400	0.455	1131.31
Shipping Grain and Waste Truck Leaving Full	Truck	17.5	22.5	40.0	2488.89	99555.55556	2400	0.455	1131.31
<b>Total</b>					<b>9956</b>	<b>286222</b>			<b>3393.94</b>

Average Vehicle Weight Per Trip =  tons/trip  
 Average Miles Per Trip =  miles/trip

Unmitigated Emission Factor,  $E_f = k \cdot (s/2)^{0.65} \cdot (W/3)^{1.5} - C$  (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.082	0.016	0.0024	lb/mi = particle size multiplier (AP-42 Table 13.2.1-1 for Industrial Roads)
sL =	0.6	0.6	0.6	g/m <sup>2</sup> = silt content for paved roads in non-winter months (AP-42 Table 13.2.1-3)
C =	0.00047	0.00047	0.00036	lb/mi = factor for exhaust and brake and tire wear (AP-42 Table 13.2.1-2)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor,  $E_{ext} = E \cdot [1 - P/(4N)]$

where P =  days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, $E_f$ =	1.11	0.22	0.03	lb/mile
Mitigated Emission Factor, $E_{ext}$ =	1.02	0.20	0.03	lb/mile

Process	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Receiving Truck to Scale Entering Full	Grain truck (650 bushel)	0.31	0.06	0.01	0.29	0.06	0.01
Receiving Truck from Scale Leave Empty	Grain truck (650 bushel)	0.31	0.06	0.01	0.29	0.06	0.01
Shipping Grain and Waste Truck Entering Empty	Grain truck (650 bushel)	0.63	0.12	0.02	0.58	0.11	0.02
Shipping Grain and Waste Truck Leaving Full	Grain truck (650 bushel)	0.63	0.12	0.02	0.58	0.11	0.02
<b>Totals</b>		<b>1.89</b>	<b>0.37</b>	<b>0.05</b>	<b>1.73</b>	<b>0.34</b>	<b>0.05</b>

**Methodology**

Maximum Annual Grain Throughput (tons/yr) = [Maximum Annual Grain Throughput (bushels/yr)] \* [Bulk Density of Grain (tons/bushel)]  
 Maximum Weight of Vehicle and Load (tons/trip) = [Maximum Weight of Vehicle (tons/trip)] + [Maximum Weight of Load (tons/trip)]  
 Maximum trips per year (trip/yr) = [Throughput (tons/yr)] / [Maximum Weight of Load (tons/trip)]  
 Total Weight driven per year (ton/yr) = [Maximum Weight of Vehicle and Load (tons/trip)] \* [Maximum trips per year (trip/yr)]  
 Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]  
 Maximum one-way miles (miles/yr) = [Maximum trips per year (trip/yr)] \* [Maximum one-way distance (mi/trip)]  
 Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per year (ton/yr)] / SUM[Maximum trips per year (trip/yr)]  
 Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/yr)] / SUM[Maximum trips per year (trip/yr)]  
 Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) \* (Unmitigated Emission Factor (lb/mile)) \* (ton/2000 lbs)  
 Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) \* (Mitigated Emission Factor (lb/mile)) \* (ton/2000 lbs)

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 PM2.5 = Particulate Matter (<2.5 um)  
 PTE = Potential to Emit