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

TO: Interested Parties / Applicant

DATE: April 13, 2009

RE: Pioneer Hi-Bred International, Inc. / 055-27384-00009

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 Minor Source Operating Permit
OFFICE OF AIR QUALITY

Pioneer Hi-Bred International, Inc.
4049W 315 N
Switz City, Indiana 47465

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

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

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 MSOP under 326 IAC 2-6.1.

Operation Permit No.: M055-27384-00009	
Issued by: Alfred C. Dumaual, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: April 13, 2009 Expiration Date: April 13, 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 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary grain elevator and seed production facility.

Source Address:	4049W 315 N, Switz City, Indiana 47465
Mailing Address:	4049W 315 N, Switz City, Indiana 47465
General Source Phone Number:	(812) 875-2400
SIC Code:	5153
County Location:	Greene
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source 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

This stationary grain elevator and seed production facility 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 1976, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to one (1) stack (SV dryer 1).

(b) One (1) natural gas-fired ear corn dryer, identified as dryer 2, constructed in 1978, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to one (1) stack (SV dryer 2).

(c) One (1) natural gas-fired ear corn dryer, identified as dryer 3, approved for construction in 2009, with a rated heat input capacity of 50 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to one (1) stack (SV dryer 3).

(d) Two (2) green corn dump pits, identified as dump pits 1 and 2, constructed in 1987, each with a maximum throughput of 1,200 bushels per hour, with fugitive emissions exhausting to the atmosphere.

(e) Two (2) wheat and corn dump pits, identified as dump pits 3 and 4, constructed in 1990, each with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD04 as a control, and exhausting indoors.

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

(1) Two (2) husking and sorting lines, each containing seven (7) units, identified as sorting lines 1 and 2, constructed in 1988, both modified with the addition of one (1) new unit in 2009, each with a maximum throughput of 170 bushels per hour, and exhausting indoors.

(2) One (1) bagged seed corn area, identified as corn rework, constructed in 1990, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD07 as a control, and exhausting indoors.

(3) Fourteen (14) precision sizers, identified as sizers 1 through 14, constructed in 1990, each with a maximum throughput of 60 bushels per hour, using a baghouse, identified as CD05 as a control, and exhausting indoors.

(4) Nine (9) gravity separator bins, identified as separators 1 through 9, used to remove damaged seed, constructed in 1990, each with a maximum throughput of 90 bushels per hour, using nine (9) baghouses, collectively identified as CD03 as controls, and exhausting indoors.

(5) One (1) seed treater, identified as treater, used to apply fungicide and pesticide to seed, constructed in 1990, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD06 as a control, and exhausting indoors.

(6) Enclosed transfer points, identified as enclosed, constructed in 1990, with a maximum throughput of 2,500 bushels per hour, using a baghouse, identified as CD04 as a control, and exhausting indoors.

(7) One (1) corn 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 CD09 as a control, and exhausting indoors.

(g) Grain Cleaning consisting of the following:

(1) One (1) corn sheller and cleaner, identified as sheller, constructed in 1992, with a maximum throughput of 2,500 bushels per hour, using two (2) baghouses, collectively identified as CD01 as controls, and exhausting indoors.

(2) One (1) aspirator, identified as aspirator, used for seed cleaning, constructed in 1990, with a maximum throughput of 2,500 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 prior to treatment, constructed in 1990, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD06 as a control, and exhausting indoors.

(h) Grain Storage consisting of the following:

(1) One (1) bulk storage building, identified as bulk building 1, constructed in 1992, with a maximum storage capacity of 330,000 bushels, using a baghouse, identified as CD04 as a control, exhausting to one (1) stack (SV bulk 1), and containing the following:

(A) Bins B-2101 through B-2112, each with a storage capacity of 20,000 bushels and;

(B) Bins B-2113 through B-2116, each with a storage capacity of 10,000 bushels and;

(C) Bins B-2117 through B-2126, each with a storage capacity of 5,000 bushels.

(2) One (1) cob storage bin, identified as cob bin, constructed in 1992, with a storage capacity of 12,000 ft^3 (about 60 tons), and exhausting indoors.

(3) One (1) untreated discard bin, identified as untreated discard bin, constructed in 1990, with a storage capacity of 1,200 bushels, and exhausting indoors.

(4) One (1) treated discard bin, identified as treated discard bin, constructed in 1990, with a storage capacity of 1,200 bushels, and exhausting indoors.

(5) Sixteen (16) kernel size bins, identified as kernel bins 1 through 16, constructed in 1990, each with a storage capacity of 1,000 bushels of kernels, using a baghouse, identified as CD05 as a control, and exhausting indoors.

6) Four (4) treated seed packaging bins, identified as treated bins 1 through 4, constructed in 1990, each with a storage capacity of 1,000 bushels of treated seed, using a baghouse, identified as CD05 as a control, and exhausting indoors.

(7) Two (2) untreated seed packaging bins, identified as untreated bins 1 and 2, constructed in 1990, each with a storage capacity of 660 bushels of untreated seed, using a baghouse, identified as CD05 as a control, and exhausting indoors.

(8) One (1) bulk storage building, identified as bulk storage 2, approved for construction in 2009, with a maximum storage capacity of 500,000 bushels, using a baghouse, identified as CD08 as a control, exhausting to one (1) stack (SV bulk 2), and containing the following:

(A) Bins B-1 through B-32, each with a storage capacity of 10,000 bushels.

(B) Bins B-33 through B-39 and B-44 through B-68, each with a storage capacity of 5,000 bushels.

(C) Bins B-40 through B-43 and B-69 through B-72, each with a storage capacity of 2,500 bushels.

(i) Grain packaging consisting of the following:

(1) One (1) treated seed packaging area, identified as treated packaging, constructed in 1990, with a maximum throughput of 1,200 bushels of treated seed per hour, using a baghouse, identified as CD05 as a control, and exhausting indoors.

(2) One (1) untreated seed packaging area, identified as untreated packaging, constructed in 1990, with a maximum throughput of 1,200 bushels of untreated seed per hour, using a baghouse, identified as CD05 as a control, and exhausting indoors.

(j) 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 20 tons 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 1992, with a maximum throughput of 60 tons per hour, with fugitive emissions exhausting to the atmosphere.

(3) One (1) untreated discard loadout, identified as untreated discard loadout, used for loadout of damaged seeds, constructed in 1990, with a maximum throughput of 1,200 bushels per hour, with fugitive emissions exhausting to the atmosphere.

(4) One (1) treated discard loadout, identified as treated discard loadout, used for loadout of damaged seeds, constructed in 1990, with a maximum throughput of 1,200 bushels per hour, with fugitive emissions exhausting to the atmosphere.

(5) One (1) bulk truck loadout, identified as bulk loadout, used for loadout of untreated seed, constructed in 1990 with a maximum throughput of 1,600 bushels per hour, using a baghouse, identified as CD05, as a control, with fugitive emissions exhausting to the atmosphere.

(k) Fugitive emissions from unpaved roads and parking lots.

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-1.1-1) shall prevail.

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

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

B.3 Affidavit of Construction [326 IAC 2-5.1-3(h)] [326 IAC 2-5.1-4]

This document shall also become the approval to operate pursuant to 326 IAC 2-5.1-4 when prior to the start of operation, the following requirements are met:

(a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), verifying that the emission units were constructed as proposed in the application or the permit. The emission units covered in this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM if constructed as proposed.

(b) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2 and an Operation Permit Validation Letter is issued.

(c) The Permittee shall attach the Operation Permit Validation Letter received from the Office of Air Quality (OAQ) to this permit.

B.4 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, M055-27384-00009, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(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.5 Term of Conditions [326 IAC 2-1.1-9.5]

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

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

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

B.6 Enforceability

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.7 Severability

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.8 Property Rights or Exclusive Privilege

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

B.9 Duty to Provide Information

(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.10 Certification

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

(a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) The annual notice shall be submitted in the format attached no later than March 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

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

B.12 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days 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

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 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to M055-27384-00009 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this permit.

B.14 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least one hundred twenty (120) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.15 Permit Renewal [326 IAC 2-6.1-7]

(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 2-6.1-7. Such information shall be included in the application for each emission unit at this source. 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 one hundred twenty (120) days 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 2-6.1 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.16 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 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 shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.17 Source Modification Requirement

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

B.18 Inspection and Entry
[326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][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 permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under 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.19 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 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 notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

B.20 Annual Fee Payment [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees due within thirty (30) calendar days of receipt of a bill from IDEM, OAQ.

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

B.21 Credible Evidence [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(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 Permit Revocation [326 IAC 2-1.1-9]

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

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

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

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

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute 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]

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]

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]

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]

(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. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-6.1-5(a)(2)]

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]

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

C.10 Compliance Monitoring [326 IAC 2-1.1-11]

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

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

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

C.12 Instrument Specifications [326 IAC 2-1.1-11]

(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

C.13 Response to Excursions or Exceedances

(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.14 Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected 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 2-6.1-5(a)(2)]

C.15 Malfunctions Report [326 IAC 1-6-2]

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

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.16 General Record Keeping Requirements [326 IAC 2-6.1-5]

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

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented 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 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

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

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

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

(c) 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).

(d) 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.

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 1976, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to one (1) stack (SV dryer 1).

(b) One (1) natural gas-fired ear corn dryer, identified as dryer 2, constructed in 1978, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to one (1) stack (SV dryer 2).

(c) One (1) natural gas-fired ear corn dryer, identified as dryer 3, approved for construction in 2009, with a rated heat input capacity of 50 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to one (1) stack (SV dryer 3).

(d) Two (2) green corn dump pits, identified as dump pits 1 and 2, constructed in 1987, each with a maximum throughput of 1,200 bushels per hour, with fugitive emissions exhausting to the atmosphere.

(e) Two (2) wheat and corn dump pits, identified as dump pits 3 and 4, constructed in 1990, each with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD04 as a control, and exhausting indoors.

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

(1) Two (2) husking and sorting lines, each containing seven (7) units, identified as sorting lines 1 and 2, constructed in 1988, both modified with the addition of one (1) new unit in 2009, each with a maximum throughput of 170 bushels per hour, and exhausting indoors.

(2) One (1) bagged seed corn area, identified as corn rework, constructed in 1990, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD07 as a control, and exhausting indoors.

(3) Fourteen (14) precision sizers, identified as sizers 1 through 14, constructed in 1990, each with a maximum throughput of 60 bushels per hour, using a baghouse, identified as CD05 as a control, and exhausting indoors.

(4) Nine (9) gravity separator bins, identified as separators 1 through 9, used to remove damaged seed, constructed in 1990, each with a maximum throughput of 90 bushels per hour, using nine (9) baghouses, collectively identified as CD03 as controls, and exhausting indoors.

(5) One (1) seed treater, identified as treater, used to apply fungicide and pesticide to seed, constructed in 1990, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD06 as a control, and exhausting indoors.

(6) Enclosed transfer points, identified as enclosed, constructed in 1990, with a maximum throughput of 2,500 bushels per hour, using a baghouse, identified as CD04 as a control, and exhausting indoors.

(7) One (1) corn 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 CD09 as a control, and exhausting indoors.

(g) Grain Cleaning consisting of the following:

(1) One (1) corn sheller and cleaner, identified as sheller, constructed in 1992, with a maximum throughput of 2,500 bushels per hour, using two (2) baghouses, collectively identified as CD01 as controls, and exhausting indoors.

(2) One (1) aspirator, identified as aspirator, used for seed cleaning, constructed in 1990, with a maximum throughput of 2,500 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 prior to treatment, constructed in 1990, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD06 as a control, and exhausting indoors.

(i) Grain packaging consisting of the following:

(1) One (1) treated seed packaging area, identified as treated packaging, constructed in 1990, with a maximum throughput of 1,200 bushels of treated seed per hour, using a baghouse, identified as CD05 as a control, and exhausting indoors.

(2) One (1) untreated seed packaging area, identified as untreated packaging, constructed in 1990, with a maximum throughput of 1,200 bushels of untreated seed per hour, using a baghouse, identified as CD05 as a control, and exhausting indoors.

(j) 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 20 tons 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 1992, with a maximum throughput of 60 tons per hour, with fugitive emissions exhausting to the atmosphere.

(3) One (1) untreated discard loadout, identified as untreated discard loadout, used for loadout of damaged seeds, constructed in 1990, with a maximum throughput of 1,200 bushels per hour, with fugitive emissions exhausting to the atmosphere.

(4) One (1) treated discard loadout, identified as treated discard loadout, used for loadout of damaged seeds, constructed in 1990, with a maximum throughput of 1,200 bushels per hour, with fugitive emissions exhausting to the atmosphere.

(5) One (1) bulk truck loadout, identified as bulk loadout, used for loadout of untreated seed, constructed in 1990 with a maximum throughput of 1,600 bushels per hour, using a baghouse, identified as CD05, as a control, 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:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and P = 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:

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

Emissions Units	Maximum (bushels/hr) for each unit of that type	Maximum Process Weight (tons/hour)[1] for each unit of that type	326 IAC 6-3 Limit (lbs/hr) for each unit of that type
Grain Dryers (1 through 3)	1,200	48.75	44.34
Dump Pits (1 and 2)	1,200	48.75	44.34
Corn Rework	1,200	33.60	40.96
Dump Pits (3 and 4)	1,200	33.60	40.96
Seed Treater	1,200	33.60	40.96
Enclosed Transfer Points	2,500	70.00	47.77
Blending System	2,000	56.00	45.64
Sheller and Cleaner	2,500	101.56	51.43
Aspirator	2,500	70.00	47.77
Treater Aspirator	1,200	33.60	40.96
Treated and Untreated Seed Packaging Areas	1,200	33.60	40.96
Silage Chopper Loadout	N/A	20.00	30.51
Cob Loadout	N/A	60.00	46.29
Untreated Discard Loadout	1,200	33.60	40.96
Treated Discard Loadout	1,200	33.60	40.96
Bulk Loadout	1,600	44.80	43.56

[1]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 3), and Sheller and Cleaner. All other units handle either shelled corn or wheat, for which a conversion of 56 pounds per bushel is assumed.

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

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the Grain Dryers (1 through 3), the seed treater and the following control devices: CD01, CD02, CD03, CD04, CD05, CD06, CD07, CD08, and CD09.

Compliance Determination Requirements

D.1.3 Particulate Control

(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 sheller and cleaner at all times the sheller and cleaner is in operation.

(b) In order to comply with Condition D.1.1, the baghouse, identified as CD02, for particulate control shall be in operation and control emissions from the aspirator at all times the aspirator is in operation.

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

D.1.4 Parametric Monitoring

(a) The Permittee shall record the total static pressure drop across the baghouses, identified as CD01 and CD02, used in conjunction with the sheller and cleaner and aspirator at least once per day when the sheller and cleaner and aspirator are in operation. When for any one reading, the pressure drop across the baghouses are 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 2-6.1-5(a)(2)]

D.1.5 Record Keeping Requirements

(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.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

MINOR SOURCE OPERATING PERMIT (MSOP) CERTIFICATION

Source Name: Pioneer Hi-Bred International, Inc.
Source Address: 4049W 315 N, Switz City, Indiana 47465
Mailing Address: 4049W 315 N, Switz City, Indiana 47465
MSOP No.: M055-27384-00009

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)_____

☐ Report (specify)_____

☐ Notification (specify)_____

☐ Affidavit (specify)_____

☐ Other (specify)_____

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

Signature:

Printed Name:

Title/Position:

Date:

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

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

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

Company Name:	Pioneer Hi-Bred International, Inc.
Address:	4049W 315 N
City:	Switz City, Indiana 47465
Phone #:	(812) 875-2400
MSOP #:	M055-27384-00009

I hereby certify that Pioneer Hi-Bred International, Inc. is : ☐ still in operation.
☐ no longer in operation.

I hereby certify that Pioneer Hi-Bred International, Inc. is : ☐ in compliance with the requirements of MSOP M055-27384-00009.
☐ not in compliance with the requirements of MSOP M055-27384-00009.

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

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

Noncompliance:

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER: (317) 233-6865

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

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

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

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

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

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

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

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

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

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

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____
_____

MEASURES TAKEN TO MINIMIZE EMISSIONS:_____
_____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES:_____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS:_____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT:_____
INTERIM CONTROL MEASURES: (IF APPLICABLE)_____
_____
_____

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

MALFUNCTION RECORDED BY:_____DATE:_____TIME:_____
*SEE PAGE 2

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

326 IAC 1-6-1 Applicability of rule

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

326 IAC 1-2-39 "Malfunction" definition

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

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

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

_____
_____

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

Pioneer Hi-Bred International, Inc.
4049W 315 N
Switz City, Indiana 47465

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.

2. I hold the position of _____ for _____.
(Title) (Company Name)

3. By virtue of my position with _____, I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____.
(Company Name)

4. I hereby certify that Pioneer Hi-Bred International, Inc. 4049W 315 N, Switz City, Indiana 47465, completed construction of the grain elevator and seed production facility source on _____ in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on January 20, 2009 and as permitted pursuant to New Source Review Permit and Minor Source Operating Permit No. M055-27384-00009, Plant ID No. 055-00009 issued on _____.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature_____
Date_____

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of Indiana

on this _____ day of _____, 20 _____. My Commission expires: _____.

Signature_____
Name_____ (typed or printed)

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document (ATSD) New Source Review and Minor Source Operating Permit

Source Background and Description

Source Name:	**Pioneer Hi-Bred International, Inc.**
Source Location:	**4049W 315 N, Switz City, Indiana 47465**
County:	**Greene**
SIC Code:	**5153**
Operation Permit No.:	**M055-27384-00009**
Permit Reviewer:	**Sarah Conner, Ph. D.**

On March 10, 2009, the Office of Air Quality (OAQ) had a notice published in The Greene County Daily World, Linton, Indiana, stating that Pioneer Hi-Bred International, Inc. had applied for New Source Review and Minor Source Operating Permit (MSOP) 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 MSOP 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

No comments were received during the public notice period.

Additional Changes

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

IDEM, OAQ has determined that several emission units at the source that were not previously subject to 326 IAC 6-3-2 are now subject to this rule based on their maximum operating capacities.

Section D.1 has been updated to reflect the changes in limits, monitoring and D.1 conditions to which these units are subject in order to comply with 326 IAC 6-3-2. In addition, the Table of Contents has been updated to include the additional D.1 sections.

(a) 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 1976, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to one (1) stack (SV dryer 1).

(b) One (1) natural gas-fired ear corn dryer, identified as dryer 2, constructed in 1978, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to one (1) stack (SV dryer 2).

(c) One (1) natural gas-fired ear corn dryer, identified as dryer 3, approved for construction in 2009, with a rated heat input capacity of 50 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to one (1) stack (SV dryer 3).

(d) Two (2) green corn dump pits, identified as dump pits 1 and 2, constructed in 1987, each with a maximum throughput of 1,200 bushels per hour, with fugitive emissions exhausting to the atmosphere.

(e) Two (2) wheat and corn dump pits, identified as dump pits 3 and 4, constructed in 1990, each with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD04 as a control, and exhausting indoors.

(~~d~~**f**) Headhouse and grain handling consisting of the following:

(1) Two (2) husking and sorting lines, each containing seven (7) units, identified as sorting lines 1 and 2, constructed in 1988, both modified with the addition of one (1) new unit in 2009, each with a maximum throughput of 170 bushels per hour, and exhausting indoors.

(2) One (1) bagged seed corn area, identified as corn rework, constructed in 1990, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD07 as a control, and exhausting indoors.

(3) Fourteen (14) precision sizers, identified as sizers 1 through 14, constructed in 1990, each with a maximum throughput of 60 bushels per hour, using a baghouse, identified as CD05 as a control, and exhausting indoors.

(4) Nine (9) gravity separator bins, identified as separators 1 through 9, used to remove damaged seed, constructed in 1990, each with a maximum throughput of 90 bushels per hour, using nine (9) baghouses, collectively identified as CD03 as controls, and exhausting indoors.

(5) One (1) seed treater, identified as treater, used to apply fungicide and pesticide to seed, constructed in 1990, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD06 as a control, and exhausting indoors.

(~~2~~**6**) Enclosed transfer points, identified as enclosed, constructed in 1990, with a maximum throughput of 2,500 bushels per hour, using a baghouse, identified as CD04 as a control, and exhausting indoors.

(7) One (1) corn 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 CD09 as a control, and exhausting indoors.

(~~e~~**g**) Grain Cleaning consisting of the following:

...

(~~f~~**i**) Grain packaging consisting of the following:

...

(j) 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 20 tons 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 1992, with a maximum throughput of 60 tons per hour, with fugitive emissions exhausting to the atmosphere.

(3) One (1) untreated discard loadout, identified as untreated discard loadout, used for loadout of damaged seeds, constructed in 1990, with a maximum throughput of 1,200 bushels per hour, with fugitive emissions exhausting to the atmosphere.

(4) One (1) treated discard loadout, identified as treated discard loadout, used for loadout of damaged seeds, constructed in 1990, with a maximum throughput of 1,200 bushels per hour, with fugitive emissions exhausting to the atmosphere.

(5) One (1) bulk truck loadout, identified as bulk loadout, used for loadout of untreated seed, constructed in 1990 with a maximum throughput of 1,600 bushels per hour, using a baghouse, identified as CD05, as a control, 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]

...

Emissions Units	Maximum (bushels/hr) for each unit of that type	Maximum Process Weight (tons/hour)[1] for each unit of that type	326 IAC 6-3 Limit (lbs/hr) for each unit of that type
Grain Dryers (1 through 3)	1,200	48.75	44.34

Dump Pits (1 and 2)	**1,200**	**48.75**	**44.34**
~~Husking and Sorting Lines (1 and 2)~~	~~170~~	~~6.91~~	~~14.96~~
Corn Rework	**1,200**	**33.60**	**40.96**
Dump Pits (3 and 4)	**1,200**	**33.60**	**40.96**
Seed Treater	**1,200**	**33.60**	**40.96**
Enclosed Transfer Points	2,500	70.00	47.77
Blending System	**2,000**	**56.00**	**45.64**
Sheller and Cleaner	2,500	101.56	51.43
Aspirator	2,500	70.00	47.77
Treater Aspirator	1,200	33.60	40.96
Treated and Untreated Seed Packaging Areas	1,200	33.60	40.96
Silage Chopper Loadout	**N/A**	**20.00**	**30.51**
Cob Loadout	**N/A**	**60.00**	**46.29**
Untreated Discard Loadout	**1,200**	**33.60**	**40.96**
Treated Discard Loadout	**1,200**	**33.60**	**40.96**
Bulk Loadout	**1,600**	**44.80**	**43.56**

...

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

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the Grain Dryers (1 through 3)**, the seed treater** and the following control devices: CD01, CD02, CD03, CD04, CD05, CD06, CD07, CD08, and CD09.

Compliance Determination Requirements

D.1.3 Particulate Control

(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 sheller and cleaner at all times the sheller and cleaner is in operation.

(b) In order to comply with Condition D.1.1, the baghouse, identified as CD02, for particulate control shall be in operation and control emissions from the aspirator at all times the aspirator is in operation.

(c) 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, identified as CD01 and CD02, used in conjunction with the sheller and cleaner and aspirator at least once per day when the sheller and cleaner and aspirator are in operation. When for any one reading, the pressure drop across the baghouses are

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

(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.

IDEM Contact

(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

Indiana Department of Environmental Management
Office of Air Quality

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

Source Description and Location

Source Name:	**Pioneer Hi-Bred International, Inc.**
Source Location:	**4049W 315 N, Switz City, Indiana 47465**
County:	**Greene**
SIC Code:	**5153**
Operation Permit No.:	**M055-27384-00009**
Permit Reviewer:	**Sarah Conner, Ph. D.**

On January 20, 2009, the Office of Air Quality (OAQ) has 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) Operating Permit No. 28-11-82-0029, issued on December 5, 1978 and;

(b) Operating Permit No. 28-01-87-0042, issued on March 17, 1983.

Due to this application, the source is applying for a MSOP.

County Attainment Status

The source is located in Greene County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Attainment effective December 29, 2005, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.

[1]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. Greene 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
Greene 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 15th, 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
Greene County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

(a) The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-6.1 (Minor Source Operating Permits) applicability.

(b) 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 20, 2009, relating to construction and operation of new emission units at a grain elevator and seed production facility and the continued operation of an existing grain elevator and seed production facility.

The source consists of a hybrid seed processing and shelling and cleaning facility which contains the following permitted emission unit(s):

(a) One (1) natural gas-fired ear corn dryer, identified as dryer 1, constructed in 1976, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to one (1) stack (SV dryer 1).

(b) One (1) natural gas-fired ear corn dryer, identified as dryer 2, constructed in 1978, with a rated heat input capacity of 60 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to one (1) stack (SV dryer 2).

The following is a list of the new emission unit(s) and pollution control device(s):

(a) One (1) natural gas-fired ear corn dryer, identified as dryer 3, approved for construction in 2009, with a rated heat input capacity of 50 MMBtu per hour, with a maximum throughput of 1,200 bushels per hour, and exhausting to one (1) stack (SV dryer 3).

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

(1) One (1) corn 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 CD09 as a control, and exhausting indoors.

(c) Grain Storage consisting of the following:

(1) One (1) bulk storage building, identified as bulk storage 2, approved for construction in 2009, with a maximum storage capacity of 500,000 bushels, using a baghouse, identified as CD08 as a control, exhausting to one (1) stack (SV bulk 2), and containing the following:

(A) Bins B-1 through B-32, each with a storage capacity of 10,000 bushels.

(B) Bins B-33 through B-39 and B-44 through B-68, each with a storage capacity of 5,000 bushels.

(C) Bins B-40 through B-43 and B-69 through B-72, each with a storage capacity of 2,500 bushels.

Unpermitted Emission Units and Pollution Control Equipment

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

(a) Two (2) green corn dump pits, identified as dump pits 1 and 2, constructed in 1987, each with a maximum throughput of 1,200 bushels per hour, with fugitive emissions exhausting to the atmosphere.

(b) Two (2) wheat and corn dump pits, identified as dump pits 3 and 4, constructed in 1990, each with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD04 as a control, and exhausting indoors.

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

(1) Two (2) husking and sorting lines, each containing seven (7) units, identified as sorting lines 1 and 2, constructed in 1988, both modified with the addition of one (1) new unit in 2009, each with a maximum throughput of 170 bushels per hour, and exhausting indoors.

(2) One (1) bagged seed corn area, identified as corn rework, constructed in 1990, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD07 as a control, and exhausting indoors.

(3) Fourteen (14) precision sizers, identified as sizers 1 through 14, constructed in 1990, each with a maximum throughput of 60 bushels per hour, using a baghouse, identified as CD05 as a control, and exhausting indoors.

(4) Nine (9) gravity separator bins, identified as separators 1 through 9, used to remove damaged seed, constructed in 1990, each with a maximum throughput of 90 bushels per hour, using nine (9) baghouses, collectively identified as CD03 as controls, and exhausting indoors.

(5) One (1) seed treater, identified as treater, used to apply fungicide and pesticide to seed, constructed in 1990, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD06 as a control, and exhausting indoors.

(6) Enclosed transfer points, identified as enclosed, constructed in 1990, with a maximum throughput of 2,500 bushels per hour, using a baghouse, identified as CD04 as a control, and exhausting indoors.

(d) Grain Cleaning consisting of the following:

(1) One (1) corn sheller and cleaner, identified as sheller, constructed in 1992, with a maximum throughput of 2,500 bushels per hour, using two (2) baghouses, collectively identified as CD01 as controls, and exhausting indoors.

(2) One (1) aspirator, identified as aspirator, used for seed cleaning, constructed in 1990, with a maximum throughput of 2,500 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 prior to treatment, constructed in 1990, with a maximum throughput of 1,200 bushels per hour, using a baghouse, identified as CD06 as a control, and exhausting indoors.

(e) Grain Storage consisting of the following:

(1) One (1) bulk storage building, identified as bulk building 1, constructed in 1992, with a maximum storage capacity of 330,000 bushels, using a baghouse, identified as CD04 as a control, exhausting to one (1) stack (SV bulk 1), and containing the following:

(A) Bins B-2101 through B-2112, each with a storage capacity of 20,000 bushels and;

(B) Bins B-2113 through B-2116, each with a storage capacity of 10,000 bushels and;

(C) Bins B-2117 through B-2126, each with a storage capacity of 5,000 bushels.

(2) One (1) cob storage bin, identified as cob bin, constructed in 1992, with a storage capacity of 12,000 ft^3 (about 60 tons), and exhausting indoors.

(3) One (1) untreated discard bin, identified as untreated discard bin, constructed in 1990, with a storage capacity of 1,200 bushels, and exhausting indoors.

(4) One (1) treated discard bin, identified as treated discard bin, constructed in 1990, with a storage capacity of 1,200 bushels, and exhausting indoors.

(5) Sixteen (16) kernel size bins, identified as kernel bins 1 through 16, constructed in 1990, each with a storage capacity of 1,000 bushels of kernels, using a baghouse, identified as CD05 as a control, and exhausting indoors.

(6) Four (4) treated seed packaging bins, identified as treated bins 1 through 4, constructed in 1990, each with a storage capacity of 1,000 bushels of treated seed, using a baghouse, identified as CD05 as a control, and exhausting indoors.

(7) Two (2) untreated seed packaging bins, identified as untreated bins 1 and 2, constructed in 1990, each with a storage capacity of 660 bushels of untreated seed, using a baghouse, identified as CD05 as a control, and exhausting indoors.

(f) Grain packaging consisting of the following:

(1) One (1) treated seed packaging area, identified as treated packaging, constructed in 1990, with a maximum throughput of 1,200 bushels of treated seed per hour, using a baghouse, identified as CD05 as a control, and exhausting indoors.

(2) One (1) untreated seed packaging area, identified as untreated packaging, constructed in 1990, with a maximum throughput of 1,200 bushels of untreated seed per hour, using a baghouse, identified as CD05 as a control, and exhausting indoors.

(g) 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 20 tons 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 1992, with a maximum throughput of 60 tons per hour, with fugitive emissions exhausting to the atmosphere.

(3) One (1) untreated discard loadout, identified as untreated discard loadout, used for loadout of damaged seeds, constructed in 1990, with a maximum throughput of 1,200 bushels per hour, with fugitive emissions exhausting to the atmosphere.

(4) One (1) treated discard loadout, identified as treated discard loadout, used for loadout of damaged seeds, constructed in 1990, with a maximum throughput of 1,200 bushels per hour, with fugitive emissions exhausting to the atmosphere.

(5) One (1) bulk truck loadout, identified as bulk loadout, used for loadout of untreated seed, constructed in 1990 with a maximum throughput of 1,600 bushels per hour, using a baghouse, identified as CD05, as a control, with fugitive emissions exhausting to the atmosphere.

(h) Fugitive emissions from unpaved roads and parking lots.

Enforcement Issues

Pioneer Hi-Bred International, Inc. was issued a previous operating permit No. 28-11-82-0029 for a hybrid seed processing facility, issued on December 5, 1978. In addition, Pioneer Hi-Bred International, Inc. was issued a previous operating permit No. 28-01-87-0042 for a shelling and cleaning facility issued on March 17, 1983.

The source was required to apply for an MSOP pursuant to the compliance schedule contained in 326 IAC 2-6.1-3(c) for any existing source that does not have a valid air operating permit. Therefore, the source should have applied for an MSOP prior to December 25, 1999 because they did not have a valid air operating permit. The operating permit No. 28-11-82-0029 for the hybrid seed processing facility expired on November 1, 1982, and the operating permit No. 28-01-87-0042 for the shelling and cleaning facility expired on January 1, 1987.

On January 20, 2009, IDEM, OAQ received an application for New Source Review and Minor Source Operating Permit (MSOP) from Pioneer Hi-Bred International, Inc. which includes both the hybrid seed processing facility and the shelling and cleaning facility. The two (2) natural gas-fired ear corn dryers, identified as dryer 1 and dryer 2, were previously permitted but they are operating without a current operating permit. IDEM is aware that all other existing emission units at this source have been constructed and operated prior to receipt of the proper permit. IDEM is reviewing this matter and will take the appropriate action. This proposed approval is intended to satisfy the requirements of the construction permit rules and the requirements of the operating permit rules.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – MSOP

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	93.13
PM10[(1)]	34.57
PM2.5	10.40
SO_2	0.45
NO_x	74.46
VOC	21.56
CO	62.55

(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	1.340
Ethylene Glycol	0.840
Formaldehyde	0.056
Toluene	0.003
Nickel	0.002
Chromium	0.001
All other Single HAPs	neglegible
TOTAL HAPs	**2.24**

(a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of pollutant CO, NO_X, PM, PM_{10} are each less than one hundred (100) tons per year but greater than or equal to twenty-five (25) tons per year. The PTE of all other regulated criteria pollutants are less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. A Minor Source Operating Permit (MSOP) will be issued.

(b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) 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) and not subject to the provisions of 326 IAC 2-7.

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 operation because it has a permanent storage capacity less than 2.5 million U.S. bushels. The maximum capacity of the source is less than 0.9 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 2-6.1 (Minor Source Operating Permits (MSOP))
MSOP applicability is discussed under the Permit Level Determination – MSOP section above.

326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
This source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit of 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.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit 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) and not subject to the provisions of 326 IAC 2-4.1.

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

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, identified as dryer 1, dryer 2 and dryer 3, are all exempt from 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 the unpaved roads, green corn dump pits and all loadout operations at the source have potential fugitive particulate emissions less than 25 tons per year.

Grain Elevator and Seed Production 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 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:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and P = 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:

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

Emissions Units	Maximum (bushels/hr) for each unit of that type	Maximum Process Weight (tons/hour)[1] for each unit of that type	326 IAC 6-3 Allowable Emission Rate (lbs/hr) for each unit of that type	Total Potential Particulate Emissions (lb/hour)
Grain Dryers (1 through 3)	1,200	48.75	44.34	1.02 (total for all dryers)
Husking and Sorting Lines (1 and 2)	170	6.91	14.96	0.57 (total for both sorting lines)
Enclosed Transfer Points	2,500	70.00	47.77	1.10 (total for all enclosed transfer points)
Sheller and Cleaner	2,500	101.56	51.43	3.48 (for the sheller and cleaner)
Aspirator	2,500	70.00	47.77	4.51 (for the aspirator)
Treater Aspirator	1,200	33.60	40.96	4.51 (for the treater aspirator)
Treated and Untreated Seed Packaging Areas	1,200	33.60	40.96	0.68 (total for the untreated and treated packaging areas)

[1]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 3), and Sheller and Cleaner. All other units handle either shelled corn or wheat, 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: dump pits (1-4), corn rework, precision sizers, gravity separater bins, seed treater, blending system, and all loadout operations. These facilities and are not subject to the requirements of 326 IAC 6-3.

Each facility at the source that is subject to 326 IAC 6-3 is able to comply with the limits established in 326 IAC 6-3 without the use of baghouses. Baghouses are used to control particulate from the following emission units: corn rework, precision sizers, gravity separater bins, seed treater, enclosed transfer points, blending system, sheller and cleaner, aspirator, treater aspirator, packaging areas and bulk loadout.

Seed Treater

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

The unlimited VOC potential emissions from the seed treater is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 do not apply.

There are no other 326 IAC 8 Rules that are applicable to the Seed Treater.

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on January 20, 2009.

The construction and operation of this source shall be subject to the conditions of the attached proposed New Source Review and MSOP No. M055-27384-00009. The staff recommends to the Commissioner that this New Source Review and MSOP be approved.

IDEM Contact

(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

Appendix A: Emissions Calculations
Summary

Company Name: **Pioneer Hi-Bred International, Inc.**
Address City IN Zip: **4049W 315 N, Switz City, Indiana 47465**
Permit Number: **M055-27384-00009**
Reviewer: **Sarah Conner, Ph. D.**
Date: **2/9/2009**

Uncontrolled Potential Emissions (tons/year)

Emissions Generating Activity											
Pollutant	Natural Gas Combustion	Grain Receiving	Grain Shipping and Packaging	Headhouse and Grain Handling	Grain Drying	Grain Cleaning	Grain storage	Seed Treater	Mitigated Unpaved	**TOTAL Non-Fugitive**	**TOTAL**
PM	1.41	1.28	5.05	16.12	4.47	54.70	2.48	-	7.62	**84.06**	**93.13**
PM10	5.66	0.29	1.98	8.98	1.12	13.86	0.63	-	2.06	**31.89**	**34.57**
*PM2.5	5.66	0.04	0.33	1.53	0.19	2.33	0.11	-	0.21	**10.10**	**10.40**
SO2	0.45	-	-	-	-	-	-	-	-	**0.45**	**0.45**
NOx	74.46	-	-	-	-	-	-	-	-	**74.46**	**74.46**
VOC	4.10	-	-	-	-	-	-	17.46	-	**21.56**	**21.56**
CO	62.55	-	-	-	-	-	-	-	-	**62.55**	**62.55**
total HAPs	1.41	-	-	-	-	-	-	0.84	-	**2.24**	**2.24**
worst case single HAP	1.34 (Hexane)	-	-	-	-	-	-	0.84 (Ethylene Glycol)	-	**1.34 (Hexane)**	**1.34 (Hexane)**

Total emissions based on rated capacity at 8,760 hours/year.
* For Unpaved Roads, the assumption is that PM10=PM2.5

Controlled Potential Emissions (tons/year)

Emissions Generating Activity											
Pollutant	Natural Gas Combustion	Grain Receiving	Grain Shipping and Packaging	Headhouse and Grain Handling	Grain Drying	Grain Cleaning	Grain storage	Seed Treater	Controlled Unpaved	**TOTAL Non-Fugitive**	**TOTAL**
PM	1.41	0.37	1.16	0.16	-	0.55	2.48	-	0.15	**5.71**	**6.29**
PM10	5.66	0.09	0.67	0.09	-	0.14	0.63	-	0.04	**6.85**	**7.31**
*PM2.5	5.66	0.01	0.11	0.02	-	0.02	0.11	-	0.00	**5.86**	**5.94**
SO2	0.45	-	-	-	-	-	-	-	-	**0.45**	**0.45**
NOx	74.46	-	-	-	-	-	-	-	-	**74.46**	**74.46**
VOC	4.10	-	-	-	-	-	-	17.46	-	**4.10**	**4.10**
CO	62.55	-	-	-	-	-	-	-	-	**62.55**	**62.55**
total HAPs	1.41	-	-	-	-	-	-	0.84	-	**2.24**	**2.24**
worst case single HAP (Hexane)	1.34 (Hexane)	-	-	-	-	-	-	0.84 (Ethylene Glycol)	-	**1.34 (Hexane)**	**1.34 (Hexane)**

Total emissions based on rated capacity at 8,760 hours/year, after control.
* For Unpaved Roads, mitigated emission factors were used.

Appendix A: Emissions Calculations
Seed Treater - Corn

Company Name: Pioneer Hi-Bred International, Inc.
Address City IN Zip: 4049W 315 N, Switz City, Indiana 47465
Permit Number: M055-27384-00009
Reviewer: Sarah Conner, Ph. D.
Date: 2/9/2009

		Corn Additive Properties				Seed Production Data	Additive Usage Data				Uncontrolled VOC Emissions	Uncontrolled HAP Emissions
Emisison Unit	Seed Additive	Constituent	% by Weight	Density (lb/gal)	Emission factor (lb/gal)	Annual Capacity tons/year	Seed Additive Usage[2] ounce/ cwt	Seed Additive Usage[2] ounce/ ton	Annual Capacity gal/year	2008 Usage gal/yr	PTE (tons/yr)	PTE (tons/yr)
Seed Treater - Corn	Sekoa Red Seed Colorant	VOC	5.0%	9.18	0.46	40,625	0.33	6.6	2,095	359	0.48	-
	Maxim/Apron	VOC	6.0%	9.18	0.55	40,625	0.21	4.2	1,333	0	0.37	-
		Ethylene Glycol	6.0%	9.18	0.55	40,625	0.21	4.2	1,333	0	-	0.37
	Poncho[1]	VOC	20%	10.43	2.09	40,625	1.131	22.62	7,179	0	7.49	-
	Dynasty	VOC	4.8%	8.68	0.42	40,625	0.153	3.06	971	0	0.20	-
	Polymer (L250, L320)	VOC	0.0%	-	-	-	-	-	-	2433	-	-
	Cruiser 5FS Insecticide	VOC	2.6%	10.51	0.27	40,625	0.00	0	-	2638	0.36	-
	Pioneer Custom Blend (Dynasty)	VOC	5.5%	9.01	0.50	40,625	0.00	0	-	333	0.08	-
		Ethylene Glycol	3.5%	9.01	0.32	40,625	0.00	0	-	333	-	0.05
	Raxil	VOC	20.0%	9.2	1.84	40,625	0.74	14.8	4,697	94	4.32	-
										Total	**13.30**	**0.42**

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 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)

Appendix A: Emissions Calculations
Seed Treater - Wheat

Company Name: Pioneer Hi-Bred International, Inc.
Address City IN Zip: 4049W 315 N, Switz City, Indiana 47465
Permit Number: M055-27384-00009
Reviewer: Sarah Conner, Ph. D.
Date: 2/9/2009

		Wheat Additive Properties				Seed Production Data	Additive Usage Data			Uncontrolled VOC Emissions	Uncontrolled HAP Emissions
Emisison Unit	Seed Additive	Constituent	% by Weight	Density (lb/gal)	Emission factor (lb/gal)	Annual Capacity tons/year	Seed Additive Usage[2] ounce/ cwt	Seed Additive Usage[2] ounce/ ton	Annual Capacity gal/year	PTE (tons/yr)	PTE (tons/yr)
Seed Treater - Wheat	Dividend Extreme[1]	VOC	20.0%	9.92	1.98	12,000	2.23	44.69	4,190	4.16	-
		Ethylene Glycol	2.0%	9.92	0.20	12,000	2.23	44.69	4,190	-	0.42
										4.16	**0.42**

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 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)

Appendix A: Emissions Calculations
Grain Elevator

Company Name: Pioneer Hi-Bred International, Inc.
Address City IN Zip: 4049W 315 N, Switz City, Indiana 47465
Permit Number: M055-27384-00009
Reviewer: Sarah Conner, Ph. D.
Date: 2/9/2009

Grain	[1]bushels/year	bushels/hr	[2]lbs / bushel	lbs / hour	**Grain Throughput (tons/year)**
Corn	1,000,000	114.16	81.25	9,275	40,625
Corn shipped equals 1MM bushels	1,000,000	114.16	81.25	9,275	40,625
Total Grain Received (tons of grain handled or processed) =					**40625**

Note 1: Total maximum amount of grain received per year equals 1 MM bushels based on actual production times 1.2 then rounded up.
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 three dryers.

Unloading/Receiving		
[4]Hopper Truck (lb/ton)		
PM	PM-10	PM2.5
0.035	0.008	0.001

Unloading/Receiving	PM	PM10	PM2.5
Green Corn	0.355	0.081	0.010
Shelled Corn	0.711	0.163	0.020
Total uncontrolled	1.066	0.244	0.030
Controlled	0.370	0.085	0.011

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

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

Drying	PM	PM10	PM2.5
Total uncontrolled	4.469	1.117	0.191

[5]**Grain Cleaning**		
PM	PM-10	PM2.5
0.75	0.19	0.032

Cleaning	PM	PM-10	PM2.5
Total uncontrolled	45.703	11.578	1.950
Control (efficiency 99%)	0.457	0.116	0.020

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 - Sheller/Cleaner, Aspirator, and Treater Aspirator.

[6]**Headhouse and Grain Handling**		
PM	PM-10	PM2.5
0.061	0.034	0.0058

	PM	PM10	PM2.5
Corn	1.239	0.691	0.118
Total uncontrolled	14.249	7.942	1.355
Controlled (efficiency 99%)	0.142	0.079	0.014

Note 6: A multiply factor of 11.1 is used to account for emissions from all the headhouse and grain handling units and any internal transfer points associated with these units. Units included are the Husking Beds/Sorting Tables Lines 1 and 2, Enclosed Internal Transfers, Precision Sizers, Gravity Beds/Separators, Blending System, and Treater. An additional factor of 0.4 was added to account for transfer of material in the corn rework process, a stand-alone process with a throughput typically less than 40% of the corn production rate.

[7]**Storage**		
PM	PM-10	PM2.5
0.025	0.0063	0.0011

storage	PM	PM10	PM2.5
uncontrolled	2.031	0.512	0.089

Note 7: A multiply factor of 4 is used to account for emissions from the 4 main storage units - bulk storage (No. #1 Bulk Building and No. #2 Bulk Storage), Kernel Size Bins, Blending System bins, and Treated and Untreated 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.

[8]**Shipping and packaging**		
Truck (unspecified)		
PM	PM-10	PM2.5
0.086	0.029	0.0049

Shipping	PM	PM10	PM2.5
Corn by truck	1.398	0.471	0.080
[9]Corn Silage by chopper	0.044	0.295	0.050
[9]Corn loadout by cob or bees wing	0.131	0.044	0.007
Packaging	2.446	0.825	0.139
Total uncontrolled	4.018	1.635	0.276
[9]Controlled	0.898	0.583	0.098

Note 8: 100% of shipping is done by truck, only a portion of shipping is controlled. Corn by truck includes emissions from bulk loading of trucks for untreated seed and seed discards and corn packing into bags and boxes. A multiply factor of 1.4 is used for Packaging to account for packing of processed green corn and corn rework.

Note 9: Since AP-42 does not have a 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
Grain Elevator

Company Name: Pioneer Hi-Bred International, Inc.
Address City IN Zip: 4049W 315 N, Switz City, Indiana 47465
Permit Number: M055-27384-00009
Reviewer: Sarah Conner, Ph. D.
Date: 2/9/2009

Grain	[1]bushels/year	[2]lbs / bushel	Grain Throughput (tons/year)
Wheat	400,000	60	12,000
Wheat shipped	400,000	60	12,000

Note 1: Total maximum amount of grain received per year based on actual production times 1.2 then rounded up.
Note 2: Assumes 60 lb/bushel for wheat.

Unloading/Receiving		
[3]Hopper Truck (lb/ton)		
PM	PM-10	PM2.5
0.035	0.008	0.001

Unloading/Receiving	PM	PM10	PM2.5
Wheat	0.210	0.048	0.006
Total uncontrolled	0.210	0.048	0.006
Controlled (efficiency 98%)	0.004	0.001	0.000

Note 3: 100% of unloading is done through Hopper truck.

[4]Grain Cleaning		
PM	PM-10	PM2.5
0.75	0.19	0.032

Cleaning	PM	PM-10	PM2.5
Total uncontrolled	9.000	2.280	0.384
Control (efficiency 99%)	0.090	0.023	0.004

Note 4: 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 2 is used to account for emissions from all grain cleaning units used for wheat processing - Aspirator and Treater Aspirator.

[5]Headhouse and Grain Handling		
PM	PM-10	PM2.5
0.061	0.034	0.0058

	PM	PM10	PM2.5
Wheat	0.366	0.204	0.035
Total uncontrolled	1.867	1.040	0.177
Controlled (efficiency 99%)	0.019	0.010	0.002

Note 5: A multiply factor of 5.1 is used to account for emissions from all the headhouse and grain handling units and any internal transfer points associated with these units. Units included are the Enclosed Internal Transfers, Gravity Beds/Separators, and Treater.

[6]Storage		
PM	PM-10	PM2.5
0.025	0.0063	0.0011

storage	PM	PM10	PM2.5
uncontrolled	0.450	0.113	0.020

Note 6: A multiply factor of 3 is used to account for emissions from the 3 main storage units used for wheat processing - bulk storage (No. #1 Bulk Building and No. #2 Bulk Storage), Kernel Size Bins, and Treated and Untreated Packaging Bins.

[7]Shipping and packaging		
Truck (unspecified)		
PM	PM-10	PM2.5
0.086	0.029	0.0049

Shipping	PM	PM10	PM2.5
Wheat by Truck	0.516	0.174	0.029
Packaging	0.516	0.174	0.029
Total uncontrolled	1.032	0.348	0.059
[8]Controlled	0.263	0.089	0.015

Note 7: 100% of shipping is done by truck. Wheat by truck includes emissions from bulk loading of trucks for untreated seed and seed discards.

Note 8: 50% control of wheat 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: **4049W 315 N, Switz City, Indiana 47465**
Permit Number: **M055-27384-00009**
Reviewer: **Sarah Conner, Ph. D.**
Date: **2/9/2009**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
170.0	1489.2

Dryer 1 and Dryer 2 have a heat input capacity of 60 MMBtu/hr. Dryer 3 has a heat input capacity of 50 MMBtu/hr.

	Pollutant						
	PM*	PM10*	PM2.5	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	1.4	5.7	5.7	0.4	74.5	4.1	62.5

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined. PM2.5 is assumed to be equal to PM10.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

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

See 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: **US Highway 67 South, PO Box 26, Worthington, Indiana 47471**
Permit Number: **M055-27384-00009**
Reviewer: **Sarah Conner, Ph. D.**
Date: **2/6/2009**

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	0.002	8.94E-04	0.056	1.340	0.003

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	Total
Potential Emission in tons/yr	3.72E-04	8.19E-04	0.001	2.83E-04	0.002	1.405

Methodology is the same the 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.

Appendix A: Emissions Calculations
Fugitive Dust Emissions - Unpaved Roads

Company Name: Pioneer Hi-Bred International, Inc.
Address City IN Zip: 4049W 315 N, Switz City, Indiana 47465
Permit Number: M055-27384-00009
Reviewer: Sarah Conner, Ph. D.
Date: 2/9/2009

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 = 52,625 tons/yr (corn and wheat)

Maximum Annual Grain Shipped = 52,625 tons/yr (corn and wheat)

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 Entering Full	Truck	17.5	22.5	40.0	2338.89	93555.6	1500	0.284	664.46
Receiving Truck Leave Empty	Truck	17.5	0	17.5	2338.89	40930.6	1500	0.284	664.46
Shipping Grain Truck Entering Empty	Truck	17.5	0	17.5	2338.89	40930.6	1500	0.284	664.46
Shipping Grain Truck Leaving Full	Truck	17.5	22.5	40.0	2338.89	93555.6	1500	0.284	664.46
	Total				**9356**	**268972**			**2657.83**

Average Vehicle Weight Per Trip = 28.8 tons/trip
Average Miles Per Trip = 0.284 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 road)
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)
Farmer Grain Truck Entering Full	Grain truck (650 bushel)	2.90	0.78	0.08	1.91	0.51	0.05	0.04	0.01	0.00
Farmer Grain Truck Leave Empty	Grain truck (650 bushel)	2.90	0.78	0.08	1.91	0.51	0.05	0.04	0.01	0.00
Shipping Grain Truck Entering Empty	Grain truck (650 bushel)	2.90	0.78	0.08	1.91	0.51	0.05	0.04	0.01	0.00
Shipping Grain Truck Leaving Full	Grain truck (650 bushel)	2.90	0.78	0.08	1.91	0.51	0.05	0.04	0.01	0.00
	Totals	**11.60**	**3.13**	**0.31**	**7.62**	**2.06**	**0.21**	**0.15**	**0.04**	**0.00**

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)
PM 2.5 = Particulate Matter (<2.5 um)
PTE = Potential to Emit