



Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

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

TO: Interested Parties / Applicant  
DATE: September 26, 2007  
RE: Pennington Seed, Inc. / 113-24133-00087  
FROM: Nisha Sizemore  
Chief, Permits Branch  
Office of Air Quality

### Notice of Decision: Approval - Effective Immediately

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

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures  
FNPER.dot 03/23/06



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## New Source Construction and Minor Source Operating Permit OFFICE OF AIR QUALITY

**Pennington Seed, Inc.  
200 Pennington Way  
Ligonier, Indiana 46767**

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

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.

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

Operation Permit No.: MSOP 113-24133-00087	
Issued by:  <i>Original signed by</i> Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: September 26, 2007  Expiration Date: September 26, 2012

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## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 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)]

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The Permittee owns and operates a sawdust and wood shaving pelletizing source.

Source Address:	200 Pennington Way, Ligonier, Indiana 46767
Mailing Address:	200 Pennington Way, Ligonier, Indiana 46767
General Source Phone Number:	937 - 587 - 2656
SIC Code:	2499
County Location:	Noble
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD 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

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

- (a) One (1) waste wood-fired burner/rotary wood dryer, identified as B001, rated at 40 million British thermal units per hour, approved for construction in 2007, equipped with a multiclone made up of four (4) parallel cyclones for collecting dried wood, identified as C001, exhausted through Stack S-001, capacity: 3,607 pounds of wood sawdust fuel per hour and 34,035 pounds of wet wood furnish per hour (wood being dried).
- (b) One (1) pellet refining process, identified as P001, approved for construction in 2007, equipped with a baghouse for particulate control, identified as C002, exhausted through Stack S-002, capacity: 19,607 pounds of dried wood per hour, consisting of:
  - (1) One (1) hammermill, identified as P001A, product pneumatically transferred to a cyclone, identified as C003, exhausted to the baghouse, identified as C002.
  - (2) Two (2) pellet-size screens, identified as Screeners A and B, pneumatically transferred to a surge bin.
  - (3) Two (2) pellet mills, identified as Pellet Mills A and B, pneumatically transferred to two (2) coolers, identified as Coolers A and B, pneumatically transferred to one (1) fines pellet-size screener, identified as C, transferred to one (1) surge bin transferred to variable speed fuel feeder and transferred back to the waste wood-fired burner/rotary wood dryer, identified as B001.
- (c) One (1) raw material handling operation, identified as S-003, approved for construction in 2007, consisting of:

- (1) One (1) storage silo, approved for construction in 2007, capacity: 14,400 pounds of wood sawdust fuel, and
- (2) Storage pile, capacity: 220 tons of wet wood furnish.
- (d) Unpaved roads with a one (1) way distance of 475 feet.

## **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, MSOP 113-24133-00087, 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**

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

**B.8 Property Rights or Exclusive Privilege**

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

**B.9 Duty to Provide Information**

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- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U.S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

**B.10 Certification**

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

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

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

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, 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 Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

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

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

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

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- (a) All terms and conditions of permits established prior to MSOP 113-24133-00087 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)]**

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The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least ninety (90) 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]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-6.1-7. 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  
Permits Branch, 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 ninety (90) 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]**

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- (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  
Permits Branch, 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**

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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] [IC13-17-3-2] [IC 13-30-3-1]**

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

- (a) Enter upon the Permittee's premises where a 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]**

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(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  
Permits Branch, 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]**

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- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

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

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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 one hundred (100) pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed five hundred fifty-one thousandths (0.551) pounds per hour.

#### C.2 Permit Revocation [326 IAC 2-1.1-9]

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

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

#### C.3 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute 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 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on June 8, 2007. The plan consists of applying water on an as-needed basis on unpaved roads and applying netting on the wet wood storage pile.

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

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

C.9 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 two hundred sixty (260) linear feet on pipes or one hundred sixty (160) square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-52 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 seventy-five hundredths (0.75) cubic feet on all facility components.
- (f) **Demolition and Renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

##### **C.10 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 one hundred eighty (180) days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

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

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
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.11 Compliance Requirements [326 IAC 2-1.1-11]**

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

### **Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]**

#### **C.12 Compliance Monitoring [326 IAC 2-1.1-11]**

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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.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

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

#### **C.14 Instrument Specifications [326 IAC 2-1.1-11]**

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- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

### **Corrective Actions and Response Steps**

#### **C.15 Response to Excursions or Exceedances**

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

- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
  - (1) monitoring results;
  - (2) review of operation and maintenance procedures and records;
  - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
  - (1) monitoring data;
  - (2) monitor performance data, if applicable; and
  - (3) corrective actions taken.

**C.16 Actions Related to Noncompliance Demonstrated by a Stack Test**

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- (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.17 Malfunctions Report [326 IAC 1-6-2]**

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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.18 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.

C.19 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 Data Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

**Stratospheric Ozone Protection**

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

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

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

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

## SECTION D.1 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]: Dryer

- (a) One (1) waste wood-fired burner/rotary wood dryer, identified as B001, rated at 40 million British thermal units per hour, approved for construction in 2007, equipped with a multiclone made up of four (4) parallel cyclones for collecting dried wood, identified as C001, exhausted through Stack S-001, capacity: 3,607 pounds of wood sawdust fuel per hour and 34,035 pounds of wet wood furnish per hour (wood being dried).

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

### Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the waste wood-fired burner/rotary wood dryer, identified as B001, shall not exceed twenty-seven and four tenths (27.4) pounds per hour when operating at a process weight rate of thirty-four thousand thirty-five (34,035) pounds per hour.

The pounds per hour limitation was calculated with the following equation:

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

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

#### 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 waste wood-fired burner/rotary wood dryer and its control devices.

### Compliance Determination Requirements

#### D.1.3 Particulate Control

In order to comply with Condition D.1.1, the multiclone for particulate control shall be in operation and control emissions from the waste wood-fired burner/rotary wood dryer, identified as B001, at all times that the dryer is in operation.

#### D.1.4 Testing Requirements [326 IAC 2-1.1-11]

Within sixty (60) days after achieving maximum production rate, but no later than one hundred eighty (180) days after initial start-up, in order to verify the CO emission rate of 2.99 pounds of CO per ton of wood burned, the Permittee shall perform CO testing for the waste wood-fired burner/rotary wood dryer, identified as B001, Stack S-001 exhaust utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C - Performance Testing.

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

#### D.1.5 Visible Emissions Notations

- (a) Visible emission notations of the waste wood-fired burner/rotary wood dryer stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

#### D.1.6 Cyclone Failure Detection

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- (a) For a cyclone controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced.
- (b) For a cyclone controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit.

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

#### D.1.7 Record Keeping Requirements

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- (a) To document compliance with Condition D.1.5, the Permittee shall maintain a daily record of visible emission notations of the waste wood-fired burner/rotary wood dryer stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the dryer did not operate that day).
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## SECTION D.2 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]: Pellet Refining Process

- (b) One (1) pellet refining process, identified as P001, approved for construction in 2007, equipped with a baghouse for particulate control, identified as C002, exhausted through Stack S-002, capacity: 19,607 pounds of dried wood per hour, consisting of:
- (1) One (1) hammermill, identified as P001A, product pneumatically transferred to a cyclone, identified as C003, exhausted to the baghouse, identified as C002.
  - (2) Two (2) pellet-size screens, identified as Screeners A and B, pneumatically transferred to a surge bin.
  - (3) Two (2) pellet mills, identified as Pellet Mills A and B, pneumatically transferred to two (2) coolers, identified as Coolers A and B, pneumatically transferred to one (1) fines pellet-size screener, identified as C, transferred to one (1) surge bin transferred to variable speed fuel feeder and transferred back to the waste wood-fired burner/rotary wood dryer, identified as B001.

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

### Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

#### D.2.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the pellet refining process, identified as P001, shall not exceed eighteen and nine tenths (18.9) pounds per hour when operating at a process weight rate of nineteen thousand six hundred seven (19,607) pounds per hour.

The pounds per hour limitation was calculated with the following equation:

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

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

#### D.2.2 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 pellet refining process, identified as P001 and its control devices.

### Compliance Determination Requirements

#### D.2.3 Particulate Control

- (a) In order to comply with Condition D.2.1 the baghouse and cyclone for particulate control shall be in operation and control emissions from the pellet refining process, identified as P001, at all times that the pellet refining process is in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the

applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

#### **D.2.4 Visible Emissions Notations**

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- (a) Visible emission notations of the pellet refining process Stack S-002 exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

#### **D.2.5 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

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- (a) The Permittee shall record the pressure drop across the baghouse used in conjunction with the pellet refining process, identified as P001, at least once per day when the pellet refining process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of four (4.0) and six (6.0) inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (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.

#### **D.2.6 Broken or Failed Bag Detection**

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- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced.
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line.

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

#### D.2.7 Cyclone Failure Detection

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- (a) For a cyclone controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced.
- (b) For a cyclone controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit.

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

#### D.2.8 Record Keeping Requirements

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- (a) To document compliance with Condition D.2.4, the Permittee shall maintain a daily record of visible emission notations of the pellet refining process Stack S-002 exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the process did not operate that day).
- (b) To document compliance with Condition D.2.5, the Permittee shall maintain a daily record of the pressure drop across the baghouse controlling the pellet refining process. 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).
- (c) 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  
CERTIFICATION**

Source Name: Pennington Seed, Inc.  
Source Address: 200 Pennington Way, Ligonier, Indiana 46767  
Mailing Address: 200 Pennington Way, Ligonier, Indiana 46767  
Permit No.: MSOP 113-24133-00087

**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:

Phone:

Date:

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

**MINOR SOURCE OPERATING PERMIT  
ANNUAL NOTIFICATION**

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

<b>Source Name:</b>	<b>Pennington Seed, Inc.</b>
<b>Address:</b>	<b>200 Pennington Way</b>
<b>City:</b>	<b>Ligonier, Indiana 46767</b>
<b>Phone #:</b>	<b>937 - 587 - 2656</b>
<b>MSOP #:</b>	<b>113-24133-00087</b>

I hereby certify that Pennington Seed, Inc. is

- still in operation.
- no longer in operation.

I hereby certify that Pennington Seed, Inc. is

- in compliance with the requirements of MSOP 113-24133-00087.
- not in compliance with the requirements of MSOP 113-24133-00087.

<b>Authorized Individual (typed):</b>
<b>Title:</b>
<b>Signature:</b>
<b>Date:</b>

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.

<b>Noncompliance:</b>

**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 ?\_\_\_\_\_, 100TONS/YEAR CARBON MONOXIDE ?\_\_\_\_\_, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?\_\_\_\_\_, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?\_\_\_\_\_, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?\_\_\_\_\_, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?\_\_\_\_\_. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION \_\_\_\_\_.

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

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

Pennington Seed, Inc.  
200 Pennington Way  
Ligonier, Indiana 46767

**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 knowledge of the  
(Company Name)  
representations contained in this affidavit and am authorized to make these representations on behalf of  
\_\_\_\_\_.  
(Company Name)
4. I hereby certify that Pennington Seed, Inc., 200 Pennington Way, Ligonier, Indiana 46767, completed construction of the sawdust and wood shaving pelletizing source on \_\_\_\_\_ in conformity with the requirements and intent of the Construction Permit application received by the Office of Air Quality on December 28, 2006 and as permitted pursuant to **MSOP No. 113-24133, Plant ID No. 113-00087** 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

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

**Source Background and Description**

<b>Source Name:</b>	<b>Pennington Seed, Inc.</b>
<b>Source Location:</b>	<b>200 Pennington Way, Ligonier, Indiana 46767</b>
<b>County:</b>	<b>Noble</b>
<b>SIC Code:</b>	<b>2499</b>
<b>Operation Permit No.:</b>	<b>MSOP 113-24133-00087</b>
<b>Permit Reviewer:</b>	<b>Frank P. Castelli</b>

The Office of Air Quality (OAQ) has reviewed an application from Pennington Seed, Inc. relating to the construction and operation of a sawdust and wood shaving pelletizing source.

**Permitted Emission Units and Pollution Control Equipment**

There are no permitted emission units operating at this source during this review process.

**Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted emission units operating at this source during this review process.

**New Emission Units and Pollution Control Equipment**

The application includes information relating to the construction and operation of the following equipment:

- (a) One (1) waste wood-fired burner/rotary wood dryer, identified as B001, rated at 40 million British thermal units per hour, approved for construction in 2007, equipped with a multi-clone made up of four (4) parallel cyclones for collecting dried wood, identified as C001, exhausted through Stack S-001, capacity: 3,607 pounds of wood sawdust fuel per hour and 34,035 pounds of wet wood furnish per hour (wood being dried).
- (b) One (1) pellet refining process, identified as P001, approved for construction in 2007, equipped with a baghouse for particulate control, identified as C002, exhausted through Stack S-002, capacity: 19,607 pounds of dried wood per hour, consisting of:
  - (1) One (1) hammermill, identified as P001A, product pneumatically transferred to a cyclone, identified as C003, exhausted to the baghouse, identified as C002.
  - (2) Two (2) pellet-size screens, identified as Screeners A and B, pneumatically transferred to a surge bin.
  - (3) Two (2) pellet mills, identified as Pellet Mills A and B, pneumatically transferred to two (2) coolers, identified as Coolers A and B, pneumatically transferred to one (1) fines pellet-size screener, identified as C, transferred to one (1) surge bin transferred to variable speed fuel feeder and transferred back to the waste wood-fired burner/rotary wood dryer, identified as B001.
- (c) One (1) raw material handling operation, identified as S-003, approved for construction in 2007, consisting of:

- (1) One (1) storage silo, approved for construction in 2007, capacity: 14,400 pounds of wood sawdust fuel, and
  - (2) Storage pile, capacity: 220 tons of wet wood furnish.
- (d) Unpaved roads with a one (1) way distance of 475 feet.

#### **Air Pollution Control Justification as an Integral Part of the Process**

- (a) The company has submitted the following justification such that the multiclone (four (4) cyclones (multiclone)), identified as C001, is an integral part of the waste wood-fired burner/rotary wood dryer:

The multiclone is used to collect the dried wood which is then processed into wood pellets, which are the product being manufactured. The primary purpose of the multiclone is to collect and transfer the product being manufactured and not air pollution control. Without the multiclone there would be no product collection and therefore no product would be produced.

IDEM, OAQ has evaluated the justification and agreed that the multiclone will be considered as an integral part of the waste wood-fired burner/rotary wood dryer process. The primary purpose of the multiclone is to collect the product and not air pollution control. Therefore, the permitting level will be determined using the potential to emit after the multiclone. Operating conditions in the proposed permit will specify that this multiclone shall operate at all times when the waste wood-fired burner/rotary wood dryer is in operation.

- (b) The company has submitted the following justification such that the cyclone, identified as C003, is an integral part of the hammermill (P001A).

The cyclone is used to pneumatically transfer the dried wood from the hammermill to the Screeners A and B. The output of the cyclone C003 is ducted directly into the baghouse C002. Therefore, the primary purpose of the cyclone is to transfer the product being manufactured and not air pollution control.

IDEM, OAQ has evaluated the justifications and agreed that the cyclone will be considered as an integral part of the hammermill (P001A). The primary purpose of the cyclone is to pneumatically transfer the product and not air pollution control. Therefore, the permitting level will be determined using the potential to emit after the cyclone. Operating conditions in the proposed permit will specify that this cyclone shall operate at all times when the hammermill is in operation.

- (c) The company has submitted the following justification such that the baghouse, identified as C002, is an integral part of the pellet refining process, identified as P001.

The baghouse, identified as C002, is used to collect the exhaust and sawdust from the entire pellet refining process, identified as P001. The sawdust created from the pellet refining process is a product of changing the size and shape of a piece of wood by the hammermill and subsequently screened. The baghouse, identified as C002, collects the sawdust so it can be transferred to the surge bin and subsequently transferred to the variable fuel feeder which feeds the waste wood sawdust to the waste wood-fired burner/rotary wood dryer, identified as B001. Without this baghouse to collect the sawdust for fuel, the sawdust portion used to fuel the burner/rotary wood dryer, identified as B001, would have fallen to the ground and would have to be disposed of off-site. This would incur additional transportation and disposal costs for the source. Without sawdust for fuel

for the burner/rotary wood dryer, identified as B001, another fuel, such as natural gas, would have to be purchased. The cost of not operating the baghouse is detailed in the following tables:

Cost of Sawdust Disposal

Annual Sawdust Production	15,799 tons
Disposal Cost per Ton	\$5.55
Annual Disposal Cost	\$87,684.45

(1) Natural Gas

Cost of Natural Gas Fuel for Maximum Burner Rating

Max. Heat Input for Burner/Rotary Wood Dryer	40,000,000 Btu/hr
Market Cost for Natural Gas as of June 2007	\$7.00 per mmBtu
Hourly Cost for Natural Gas Consumption	\$280.00
Annual Fuel Cost	\$2,452,800.00

Total Economic Impact of Not Operating the Baghouse Based on Maximum Burner Rating With Annual Waste Disposal Cost \$2,540,484.45 per year

Cost of Natural Gas Fuel Based Upon Amount of Wood Fuel to be Combusted

The source proposes to use 3,607 pounds per hour of sawdust as fuel. The heat content of dried wood is 8,000 Btu per pound. Therefore, the 3,607 pounds per hour would generate (3,607 lbs/hr x 8,000 Btu/lb) 28,856,000 Btu/hr. Using natural gas at a minimum cost of \$7.00 per mmBtu/hr equals \$201.99 per hour which is less than the cost estimated above based purely on the maximum rating of the burner/rotary wood dryer, identified as B001.

Actual Heat Input for Burner/Rotary Wood Dryer	28,856,000 Btu/hr
Market Cost for Natural Gas as of June 2007	\$7.00 per mmBtu/hr
Hourly Cost for Natural Gas Consumption	\$201.99
Annual Fuel Cost	\$1,769,432.40

**Total Economic Impact of Not Operating the Baghouse Based on Wood Fuel Available With Annual Waste Disposal Cost \$1,857,116.85**

All annual fuel costs are based upon the market price of natural gas and 8,760 hour per year of operation.

(2) No. 2 Fuel Oil

Cost of No. 2 Fuel Oil Based Upon Amount of Wood Fuel to be Combusted

The source proposes to use 3,607 pounds per hour of sawdust as fuel. The heat content of dried wood is 8,000 Btu per pound. Therefore, the 3,607 pounds per hour would generate (3,607 lbs/hr x 8,000 Btu/lb) 28,856,000 Btu/hr. Using No. 2 fuel oil at a minimum cost of \$3.00 per gallon at a 138,000 Btu per gallon equates to using 209.1 gallons of No. 2 fuel oil per hour. The 209.1 gallons of No. 2 fuel oil costs \$627.30 per hour for the burner/rotary wood dryer, identified as B001.

Actual Heat Input for Burner/Rotary Wood Dryer	28,856,000 Btu/hr
Market Cost for No. 2 Fuel Oil as of July 2007	\$3.00 per gallon
Hourly Cost for No. 2 Fuel Oil Consumption	\$627.30
Annual Fuel Cost	\$5,495,148.00

**Total Economic Impact of Not Operating  
the Baghouse Based on Wood Fuel Available  
With Annual Waste Disposal Cost                    \$5,582,832.45**

All annual fuel costs are based upon the market price of No. 2 fuel oil and 8,760 hour per year of operation.

(3) Purchased Waste Sawdust Fuel

Cost of Purchased Waste Sawdust Fuel Based Upon Amount of Sawdust to be  
Combusted

The source proposes to use 3,607 pounds per hour of sawdust as fuel. If waste sawdust fuel is purchased at a minimum cost of \$55.00 per ton, the replacement wood sawdust fuel costs \$99.19 per hour for the burner/rotary wood dryer, identified as B001.

Market Cost for Waste Sawdust as of July 2007	\$55.00 per ton
Hourly Cost for Waste Sawdust Consumption	\$99.19
Annual Fuel Cost	\$868,904.40

**Total Economic Impact of Not Operating  
the Baghouse Based on Wood Fuel Available  
With Annual Waste Disposal Cost                    \$956,588.85**

All annual fuel costs are based upon the market price of waste sawdust and 8,760 hour per year of operation.

Cost of Operating the Baghouse

(a) Electrical

(1) One (1) 35-horsepower electric motor	26.10 kw
(2) Potential Annual Hours	7,200 hours/year
(3) Price of Electricity	\$0.06 per kwh
(4) Annual Cost of Electricity	\$13,718.16/year

(b) Maintenance

(1) Annual man-hours	90 hours/year
(2) Labor cost	\$21.50/hour
(3) Annual Cost of Maintenance	\$1,935.00/year

(c) Replacement Parts for Baghouse                    \$2,000.00/year

(d) Replacement Cost of Baghouse

(1)	Price	\$50,000.00 total
(2)	Life span	10 years
(3)	Annual Replacement Cost	\$5,000/year

Direct Operating Cost Per Year \$22,653.16

Based on the cost analyses detailed above, Pennington will save at least \$933,935.69 (\$956,588.85 in actual fuel savings - \$22,653.16 baghouse operating costs) each year by using the available sawdust collected by the baghouse as a fuel instead of purchasing wood waste sawdust for the burner/rotary wood dryer. If the sawdust collected by the baghouse was utilized as fuel instead of purchasing natural gas, Pennington will save more than \$1,834,436.69 (\$1,857,116.85 in actual fuel savings - \$22,653.16 baghouse operating costs) each year. If sawdust collected by the baghouse was utilized as fuel instead of purchasing No. 2 fuel oil, Pennington will save even more, \$5,560,179.29 (\$5,582,832.45 in actual fuel savings - \$22,653.16 baghouse operating costs) each year.

These estimates are based upon the cost of replacement sawdust, natural gas and No. 2 fuel oil equivalent to the amount of available sawdust wood fuel. These annual cost savings take into account the energy costs associated with operating the baghouse, identified as C002, and the estimated annual cost it would take to completely replace the baghouse dust collection system. Since such equipment has a lifetime of ten (10) years or more, these estimates are conservative.

IDEM, OAQ has evaluated the justification and agreed that the baghouse, identified as C002, will be considered as an integral part of the pellet refining process. The primary purpose of this baghouse is collection, not pollution control so that the sawdust can be transferred via closed conveyance to fuel storage for the burner/rotary wood dryer, identified as B001. In addition this baghouse has an overwhelming net positive economic effect. Therefore, the permitting level will be determined using the potential to emit after the baghouse. Operating conditions in the proposed permit will specify that the baghouse shall operate at all times when the pellet refining processes are in operation.

**Enforcement Issue**

There are no enforcement actions pending.

**Stack Summary**

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
S-001	Waste wood-fired burner/rotary wood dryer, identified as B001	60	4.00	52,000	180
S-002	Pellet Refining Process, identified as P001	55	2.50	20,000	68

**Recommendation**

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

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

An application for the purposes of this review was received on December 28, 2006 with additional information received on January 24, April 17, June 4 and 8, and August 14, 2007.

### Emission Calculations

See pages 1 - 3 of Appendix A of this document for detailed emission calculations.

### Potential to Emit of the Source Before Controls

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

Pollutant	Potential to Emit (tons/yr)
PM	43.4
PM <sub>10</sub>	24.2
SO <sub>2</sub>	4.38
VOC	16.0
CO	23.6
NO <sub>x</sub>	36.6

HAPs	Potential to Emit (tons/yr)
Acetaldehyde	0.112
Acrolein	0.701
Benzene	0.736
Formaldehyde	0.986
Hydrogen Chloride	3.33
MIBK	0.021
Methanol	0.120
Styrene	0.333
Toluene	0.018
Total	6.35

- (a) The potential to emit of all criteria pollutants is less than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. An MSOP will be issued.

- (b) 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, an MSOP will be issued.

### County Attainment Status

The source is located in Noble County.

Pollutant	Status
PM <sub>2.5</sub>	attainment
PM <sub>10</sub>	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
8-Hour Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>) 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 NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to ozone. Noble County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability - Entire Source section of this document.
- (b) Noble County has been classified as unclassifiable or attainment for PM<sub>2.5</sub>. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM<sub>2.5</sub> emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM<sub>2.5</sub> emissions, it has directed states to regulate PM<sub>10</sub> emissions as a surrogate for PM<sub>2.5</sub> emissions. See the State Rule Applicability - Entire Source section of this document.
- (c) Noble County has been classified as attainment or unclassifiable in Indiana for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability - Entire Source section of this document.
- (d) Fugitive Emissions  
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD applicability. Pursuant to 326 IAC 2-7-2(e), all fugitive emissions are counted toward the determination of Part 70 Applicability.

## Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	43.4
PM <sub>10</sub>	89.2
SO <sub>2</sub>	4.38
VOC	16.0
CO	23.6
NO <sub>x</sub>	36.6
Single HAP	3.33
Combination HAPs	5.87

This new source is **not** a major stationary source under 326 IAC 2-2 (PSD) because no attainment pollutant is emitted at a rate of two hundred fifty (250) tons per year or greater and it is not in one of the twenty-eight (28) listed source categories. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

The potential to emit of CO in the above table reflects the result of a 1997 stack test emission factor provided by Pennington Seed, Inc. for an older version of the waste wood-fired burner/rotary wood dryer. The CO emissions from this newer wood-fired dryer are expected to be even lower than those produced by the older technology. A stack test will be required to verify the CO emission rate of 2.99 pounds per ton of wood burned.

## Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

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

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

This is the first air approval issued to this source.

## Federal Rule Applicability

- (a) Pursuant to 40 CFR 60.41c the wood dryer, identified as B001, rated at 40 million British thermal units per hour, to be constructed in 2007, is not a device that produces steam or heats water or any other heat transfer medium. Therefore the requirements of the New Source Performance Standard, 326 IAC 12 (40 CFR 60.40c, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) are not included in the permit.

- (b) Pursuant to 40 CFR 60.531 the wood dryer, identified as B001, rated at 40 million British thermal units per hour, to be constructed in 2007, is not a residential wood heater. Therefore the requirements of the New Source Performance Standard, 326 IAC 12 (40 CFR 60.530, Subpart AAA, Standards of Performance for New Residential Wood Heaters) are not included in the permit.
- (c) There are no other New Source Performance Standards included in the permit for this source.
- (d) This source is not a major source of HAPs as defined in 40 CFR 63.2. Therefore the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial/Commercial/Institutional Boilers and Process Heaters (40 CFR 63, Subpart DDDDD) are not included in the permit.
- (e) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 20 and 40 CFR Parts 61 and 63) included in this permit for this source.

#### **State Rule Applicability – Entire Source**

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

The unrestricted potential emissions of each attainment criteria pollutant are less than two hundred fifty (250) tons per year. Therefore, this source, which is not one of the twenty-eight (28) listed source categories, is a minor source pursuant to 326 IAC 2-2, PSD.

##### **326 IAC 2-4.1-1 (New source toxics control)**

The operation of this sawdust and wood shaving pelletizing source will emit less than ten (10) tons per year of a single HAP and twenty-five (25) tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

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

This source is not located in Lake or Porter County, does not emit five (5) tons per year or more of lead and does not require a Part 70 Operating Permit. Therefore, the requirements of 326 IAC 2-6 do not apply.

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

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

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

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

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

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

Pursuant to 326 IAC 6-5-1(b), this source is subject to the requirements of 326 IAC 6-5 because the source did not receive all the necessary preconstruction approvals before December 13, 1985. Fugitive particulate matter emissions shall be controlled according to plan submitted by the applicant on June 8, 2007. The plan consists of applying water on an as-needed basis on unpaved roads and applying netting on the wet wood storage pile.

### State Rule Applicability – Individual Facilities

#### 326 IAC 6-2-4 (Emission limitations for facilities specified in 326 IAC 6-2-1(d))

The waste wood-fired burner/rotary wood dryer, identified as B001, is not a subject to the requirements of this rule because the dryer is not an indirect heating facility. The wood dryer performs direct heating, not indirect heating, as it is utilized to dry out wet wood prior to the production of wood pellets.

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

- (a) Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from the waste wood-fired burner/rotary wood dryer, identified as B001, shall not exceed twenty-seven and four tenths (27.4) pounds per hour when operating at a process weight rate of thirty-four thousand thirty-five (34,035) pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from the pellet refining process, identified as P001, shall not exceed eighteen and nine tenths (18.9) pounds per hour when operating at a process weight rate of nine and eight tenths (9.80) tons per hour.
- (c) The above pounds per hour limitations were calculated with the following equation:

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

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

### Compliance Requirements

Permits issued under 326 IAC 2-6.1 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-6.1-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The source has applicable compliance determination conditions as specified below:

### Testing Requirements

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing	Limit or Requirement
One (1) waste wood-fired burner/rotary wood dryer, identified as B001	None for CO	Within 180 days	CO	Initial Test	To verify CO emission rate of 2.99 pounds per ton of wood burned per hour

#### Control Device Operation Requirements:

- (1) In order to demonstrate compliance with 326 IAC 6-3-2, the multiclone, identified as C001, shall be in operation and control emissions from the waste wood-fired burner/rotary wood dryer, identified as B001 at all times when the waste wood-fired burner/rotary wood dryer is in operation.
- (2) In order to demonstrate compliance with 326 IAC 6-3-2, the baghouse, identified as C002, and the cyclone, identified as C003, shall both be in operation and control emissions from the hammermill, identified as P001A, at all times when the hammermill is in operation.

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

Facility	Control	Parameter	Frequency	Range	Excursions and Exceedances	Limit or Requirement
Waste wood-fired burner/rotary wood dryer, identified as B001	Multiclone C001 Stack S-001	Visible Emissions	Daily	Normal-Abnormal	Response Steps	326 IAC 6-3-2 326 IAC 5-1
Pellet refining process, identified as P001	Baghouse C002 Stack S-002 and Cyclone C003 (exhausted to baghouse C002)	Water Pressure Drop	Daily	4.0 to 6.0 inches	Response Steps	326 IAC 6-3-2 326 IAC 5-1
		Visible Emissions		Normal-Abnormal		

### Conclusion

The construction and operation of this sawdust and wood shaving pelletizing source shall be subject to the conditions of the **New Source Construction and Minor Source Operating Permit 113-24133-00087**.

**Appendix A: Emissions Calculations**  
**Waste wood-fired burner/rotary wood dryer**

Company Name: Pennington Seed, Inc  
 Address City IN Zip: 200 Pennington Way, Ligonier, Indiana 46767  
 Permit # MSOP 113-24133-00087  
 Reviewer: Frank P. Castelli  
 Date: August 14, 2007

**Dry Wood**

Capacity (MMBtu/hr)	40	<b>Cyclone Control Efficiency</b>
Amount of Wood Dried (ODT/hr)	9.8035	84.2%
Higher Heating Value of Fuel (Btu/lb)	8000	Integral to Process
Wood Burned (lbs/hr)	3607	

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lbs/MMBtu AP-42 Table 1.6			0.025			
Emission Factor in lbs/ODT AP-42 Table 10.6.2	3.32	0.898	-	0.852	0.372	
Emission Factor in lbs/ton of wood burned						2.99
Potential Emissions in tons/yr based on MMBtu/hr	-	-	4.38	-	-	-
Potential Emissions in tons/yr based on ODT/hr	143	38.6	-	36.6	16.0	
Potential Emissions in tons/yr based on wood burned/hr	-	-	-	-	-	23.6
Potential Emissions in tons/yr after cyclone control	22.5	6.09				

**Sources of emission factors:**  
 AP-42 Table 1.6-1 for dry wood-fired boilers  
 AP-42 Tables 10.6.2-1 & 2 (weighted by wood moisture) for particleboard drying  
 Stack Test

ODT stands for oven dried ton  
 Dry wood is considered to be less than 20% moisture content.

The PM emission factor in lb/ODT is from AP-42, Table 10.6.2-2 (rotary dryer direct wood fired) weighted to 80% hardwood (3.3 lbs/ODT) and 20% softwood (3.4 lbs/ODT).

The PM10 emission factor in lb/ODT is from AP-42, Table 10.6.2-2 (rotary dryer direct wood fired) weighted to 80% hardwood (0.69 lbs/ODT) and 20% softwood (0.69 lbs/ODT) and also includes condensibles of 0.21 lbs/ODT for hardwood and 0.020 lbs/ODT for softwood (also weighted)

The NOx emission factor in lb/ODT is from AP-42, Table 10.6.2-2 (rotary dryer direct wood fired) weighted to 80% hardwood (0.92 lbs/ODT) and 20% softwood (0.58 lbs/ODT).

CO emission factor of 2.99 pounds per ton of wood fuel burned from a stack test of a Verhoff Mills burner completed on May 21, 1997.

The VOC emission factor in lb/ODT is from AP-42, Table 10.6.2-3 (rotary dryer direct wood fired) weighted to 80% hardwood (0.24 lbs/ODT) and 20% softwood (0.90 lbs/ODT).

**Methodology**

The SO<sub>2</sub> Emission Factor is from AP-42 Chapter 1.6 (revised 3/02), SCCs #1-0X-009-YY where X = 1 for utilities, 2 for industrial, and 3 for commercial/institutional; Y = 01 for bark-fired boilers, 02 for bark and wet wood-fired boilers, 03 for wet wood-fired boilers, and 08 for dry wood-fired boilers

Emissions (tons/yr) = Capacity (MMBtu/hr) x Emission Factor (lb/MMBtu) x 8760hrs/yr x 1 ton/2000 lbs  
 Emissions (tons/yr) = Capacity (ODT or wood burned/hr) x Emission Factor (lbs/ODT or wood burned)) x 8760 hrs/yr x 1 ton/2000 lbs

Capacity (MMBtu/hr)	40.0
Higher Heating Value of Fuel (Btu/lb)	8000

	Selected Hazardous Air Pollutants					Subtotal HAPs
	Acrolein	Benzene	Formaldehyde	Hydrogen Chloride	Styrene	
Emission Factor in lb/MMBtu	0.004	0.004	0.004	0.019	0.002	
Potential Emissions in tons/yr	0.701	0.736	0.771	3.33	0.333	5.87

**Methodology**

Emission Factors are from AP-42 Chapter 1.6 (revised 3/02), SCCs #1-0X-009-YY where X = 1 for utilities, 2 for industrial, and 3 for commercial/institutional; Y = 01 for bark-fired boilers, 02 for bark and

Emissions (tons/yr) = Capacity (MMBtu/hr) x Emission Factor (lb/MMBtu) x 8760hrs/yr x 1ton/2000lbs

These factors include the five HAPs with the highest AP-42 emission factors.

**HAPs Emissions from AP-42 Table 10.6.2-3 for softwood in direct-wood-fired rotary dryer** Percent of Softwood 20%

Amount of Wood Dried (ODT/hr)	9.8035
Amount of Softwood Dried (ODT/hr)	1.9607

	Acetaldehyde	Formaldehyde	MIBK	Methanol	Toluene	Subtotal HAPs	Total HAPs
	Emission Factor in lb/ODT AP-42 Table 10.6.2-3	0.013	0.025	0.0024	0.014	0.0021	
Potential Emissions in tons/yr based on ODT/hr	0.112	0.215	0.021	0.120	0.018	0.485	6.35

**Appendix A: Emission Calculations  
Pellet Refining**

**Company Name: Pennington Seed, Inc.  
Address City IN Zip: 200 Pennington Way, Ligonier, Indiana 46767  
Permit: MSOP 113-24133-00087  
Reviewer: Frank P. Castelli  
Date: July 9, 2007**

Unit ID	Control Efficiency (%)			PM/PM10 Emission Rate before Controls (lbs/hr)	PM/PM10 Emission Rate before Controls (tons/yr)	PM/PM10 Emission Rate after Controls (lbs/hr)	PM/PM10 Emission Rate after Controls (tons/yr)
Pellet Refining (P001)							
Baghouse (C002)	99.0%			392.1	1717.6	3.92	17.2

				PM/PM10 Emission Rate before Controls (lbs/hr)	PM/PM10 Emission Rate before Controls (tons/yr)	PM/PM10 Emission Rate after Controls (lbs/hr)	PM/PM10 Emission Rate after Controls (tons/yr)
Hammermill		Throughput Capacity (lbs/hr)					
Cyclone (C003)	98.0%	19607		N/A	N/A	392.1	1717.6
Integral pneumatic transfer to Baghouse C002							
Emissions accounted for in the baghouse calculations							

**Cyclone output C003 is the input to baghouse C002**

**Methodology**

**Pellet Refining**

**C002 Baghouse**

Emission Rate in lbs/hr (before controls) = Emission Rate (after controls)(lbs/hr) / (1-control efficiency)  
Emission Rate in lbs/hr after control = Cyclone C003 output (lbs/hr) (1- control efficiency)  
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

**Hammermill Cyclone -C003**

Emission Rate in lbs/hr after control = Throughput in lbs/hr (1-control efficiency)  
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

**Allowable Rate of Emissions**

Pursuant to 326 IAC 6-3

	Process Rate (lbs/hr)	Process Weight Rate (tons/hr)	Allowable Emissions (lbs/hr)
Wood-Fired Burner/Rotary Dryer	34,035	17.0	27.4
Pellet Refining Process	19,607	9.80	18.9

**Methodology**

Allowable Emissions = 4.10(Process Weight Rate)<sup>0.67</sup>

All screening processes as well as the storage silo are enclosed and the fines are pneumatically transferred back to the fuel bin to be used as fuel in the burner/dryer. Non-fines are the pellets (product) that are stored for shipment.

Therefore the screening processes and the storage silo do not produce any PM/PM-10 emissions. The storage pile contains wet wood prior to drying which would also preclude any PM/PM-10 emissions.

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).

$$\begin{aligned}
 &0.720 \text{ total trip/hr} \times \\
 &0.180 \text{ average miles/round trip} \times \\
 &8760 \text{ hr/yr} = \qquad \qquad \qquad 1134.9 \text{ miles per year}
 \end{aligned}$$

**PM Emissions**

$$\begin{aligned}
 E_f &= k \cdot [(s/12)^{0.7}] \cdot [(W/3)^b] \\
 &= \qquad \qquad \qquad 6.53 \qquad \qquad \text{lb/mile} \\
 \text{where } k &= \qquad \qquad \qquad 4.9 \text{ (particle size multiplier for PM}_{10} \text{ or TSP)} && \text{(k=4.9 for PM}_{10} \text{ or TSP)} \\
 s &= \qquad \qquad \qquad 4.8 \text{ mean \% silt content of haul roads in combination with plant roads} \\
 b &= \qquad \qquad \qquad 0.45 \text{ Constant for PM}_{10} \text{ and PM}_{10} \text{ or TSP} \\
 W &= \qquad \qquad \qquad 23.634 \text{ tons average vehicle weight} \\
 E &= \frac{6.53 \text{ lb/mi} \times 1134.886205 \text{ mi/yr}}{2000 \text{ lb/ton}} = 3.71 \text{ tons/yr}
 \end{aligned}$$

Taking natural mitigation due to precipitation into consideration:

$$E_{ext} = E \cdot [(365-p)/365] = 2.44 \text{ tons/yr}$$

where p = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

**PM-10 Emissions**

$$\begin{aligned}
 E_f &= k \cdot [(s/12)^{0.9}] \cdot [(W/3)^b] \\
 &= \qquad \qquad \qquad 1.66 \qquad \qquad \text{lb/mile} \\
 \text{where } k &= \qquad \qquad \qquad 1.5 \text{ (particle size multiplier for PM}_{10}\text{)} && \text{(k=4.9 for PM}_{10} \text{ or TSP)} \\
 s &= \qquad \qquad \qquad 4.8 \text{ mean \% silt content of haul roads in combination with plant roads} \\
 b &= \qquad \qquad \qquad 0.45 \text{ Constant for PM}_{10} \text{ and PM}_{10} \text{ or TSP} \\
 W &= \qquad \qquad \qquad 23.634 \text{ tons average vehicle weight} \\
 E &= \frac{1.66 \text{ lb/mi} \times 1134.886205 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.945 \text{ tons/yr}
 \end{aligned}$$

Taking natural mitigation due to precipitation into consideration:

$$E_{ext} = E \cdot [(365-p)/365] = 0.621 \text{ tons/yr}$$

where p = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)