



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • [www.idem.IN.gov](http://www.idem.IN.gov)

**Michael R. Pence**  
Governor

**Thomas W. Easterly**  
Commissioner

To: Interested Parties

Date: August 14, 2014

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

Source Name: NWP Ligonier, LLC

Permit Level: MSOP

Permit Number: 113-34455-00087

Source Location: 200 Pennington Way, Ligonier, Indiana

Type of Action Taken: Initial Permit

## **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 matter referenced above.

The final decision is available on the IDEM website at: <http://www.in.gov/apps/idem/caats/>  
To view the document, select Search option 3, then enter permit 33445.

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

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

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.

*(continues on next page)*

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

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

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

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

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



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**New Source Review and  
Minor Source Operating Permit  
OFFICE OF AIR QUALITY**

**NWP Ligonier, LLC  
200 Pennington Way  
Ligonier, Indiana 46767**

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

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

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a MSOP under 326 IAC 2-6.1.

|                                                                                                                                                                               |                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| Operation Permit No.: M113-34455-00087                                                                                                                                        |                                                                        |
| Issued by:<br><br>Nathan C. Bell, Section Chief<br>Permits Branch<br>Office of Air Quality | Issuance Date: August 14, 2014<br><br>Expiration Date: August 14, 2019 |

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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 stationary sawdust and wood shaving pelletizing source.

|                              |                                                                                                                                                                               |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Source Address:              | 200 Pennington Way, Ligonier, Indiana 46767                                                                                                                                   |
| General Source Phone Number: | 860-877-5320                                                                                                                                                                  |
| SIC Code:                    | 2499 (Wood Products, Not Elsewhere Classified)                                                                                                                                |
| County Location:             | Noble                                                                                                                                                                         |
| Source Location Status:      | Attainment for all criteria pollutants                                                                                                                                        |
| Source Status:               | Minor Source Operating Permit Program<br>Minor Source, under PSD and Emission Offset Rules<br>Minor Source, Section 112 of the Clean Air Act<br>Not 1 of 28 Source Categories |

### A.2 Emission Units and Pollution Control Equipment Summary

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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 30 million British thermal units per hour, constructed in 2007, equipped with an integral multiclone made up of four (4) parallel cyclones for collecting dried wood, identified as C001, exhausted through Stack S001, capacity: 3,750 pounds of wood sawdust fuel per hour and 9.8035 Oven-dried Ton per hour (output of wood being dried).

Note: The Permittee will only combust clean wood in the wood-fired burner (B001). Clean wood consists of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials. Clean wood does not include wood products that have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

- (b) One (1) pellet refining process, identified as P001, constructed in 2007, equipped with a baghouse for particulate control, identified as C002, exhausted through Stack S002, capacity: 19,607 pounds of dried wood per hour, consisting of:
- (1) One (1) hammermill, identified as P001A, with product pneumatically transferred to an integral cyclone, identified as C003, exhausted to the baghouse, identified as C002.
  - (2) One (1) pellet mill feed-sizing screen, identified as Screener B, with product pneumatically transferred to a surge bin.
  - (3) Two (2) pellet mills, identified as Pellet Mills A and B, with pellets pneumatically conveyed to the pellet cooler, identified as Cooler A, and then pneumatically transferred to one (1) pellet-fines screener, identified as Screener C, the fines from which are transferred to one (1) surge bin and then transferred back to the waste wood-fired burner/ rotary wood dryer, identified as B001.

- (4) Three (3) pellet storage bins, identified as PB 1, 2 and 3, with the pellets pneumatically transferred to a finished product screener, the fines from which are transferred back to the waste wood-fired burner/ rotary wood dryer, identified as B001, and the pellets are pneumatically conveyed to the pellet bagging and palletizing line after which the product is staged for shipping.
- (c) One (1) raw material handling operation, identified as S003, constructed in 2007, consisting of:
  - (1) One (1) storage silo, constructed in 2007, capacity: 14,400 pounds of wood sawdust fuel, and
  - (2) Storage pile, capacity: estimated 8,000 tons of wet wood furnish.
  - (3) Covered storage pad: estimated 2,000 tons of dry 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]**

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

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

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- (a) This permit, M113-34455-00087, 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.3 Term of Conditions [326 IAC 2-1.1-9.5]**

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

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

### **B.4 Enforceability**

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

### **B.5 Severability**

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

### **B.6 Property Rights or Exclusive Privilege**

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

### **B.7 Duty to Provide Information**

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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. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

### **B.8 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:

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

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

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

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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) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

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

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

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

The Permittee shall implement the PMPs.

- (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.
- (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.10 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

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- (a) All terms and conditions of permits established prior to M113-34455-00087 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.11 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

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

B.12 Permit Renewal [326 IAC 2-6.1-7]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

(b) A timely renewal application is one that is:

(1) Submitted at least one hundred twenty (120) days prior to the date of the expiration of this permit; and

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-6.1-4(b), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.13 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

- (c) The Permittee shall notify the OAQ no later than thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

**B.14 Source Modification Requirement**

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

**B.15 Inspection and Entry**

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[326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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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.16 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  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require an affirmation that the statements in the application are true and complete 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.17 Annual Fee Payment [326 IAC 2-1.1-7]**

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- (a) The Permittee shall pay annual fees due no later than thirty (30) calendar days of receipt of a bill from IDEM, OAQ,.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

**B.18 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 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

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

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

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

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

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 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 except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

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

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

C.7 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

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Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the attached plan as in Attachment A.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project.

- (e) Procedures for Asbestos Emission Control  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three

(3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

- (f) Demolition and Renovation  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) Indiana Licensed Asbestos Inspector  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

#### **C.9 Performance Testing [326 IAC 3-6]**

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- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:
- Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- no later than thirty-five (35) days prior to the intended test date.
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date.
- (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.10 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.11 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.12 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. The analog instrument shall be capable of measuring values outside of the normal range.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

**Corrective Actions and Response Steps**

**C.13 Response to Excursions or Exceedances**

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Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

- (a) The Permittee shall take reasonable response steps to 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 excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
  - (1) initial inspection and evaluation;
  - (2) recording that operations returned or are returning 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 normal or usual manner of operation.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
  - (1) monitoring results;
  - (2) review of operation and maintenance procedures and records; and/or
  - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall record the reasonable response steps taken.

**C.14 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 submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) 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.

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

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

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

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

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

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

#### **C.17 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]**

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

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

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
  
- (c) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

## SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (a) One (1) waste wood-fired burner/rotary wood dryer, identified as B001, rated at 30 million British thermal units per hour, constructed in 2007, equipped with an integral multiclone made up of four (4) parallel cyclones for collecting dried wood, identified as C001, exhausted through Stack S001, capacity: 3,750 pounds of wood sawdust fuel per hour and 9.8035 Oven-dried Ton per hour (output of wood being dried).

Note: The Permittee will only combust clean wood in the wood-fired burner (B001). Clean wood consists of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials. Clean wood does not include wood products that have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

- (b) One (1) pellet refining process, identified as P001, constructed in 2007, equipped with a baghouse for particulate control, identified as C002, exhausted through Stack S002, capacity: 19,607 pounds of dried wood per hour, consisting of:
- (1) One (1) hammermill, identified as P001A, with product pneumatically transferred to an integral cyclone, identified as C003, exhausted to the baghouse, identified as C002.
  - (2) One (1) pellet mill feed-sizing screen, identified as Screener B, with product pneumatically transferred to a surge bin.
  - (3) Two (2) pellet mills, identified as Pellet Mills A and B, with pellets pneumatically conveyed to the pellet cooler, identified as Cooler A, and then pneumatically transferred to one (1) pellet-fines screener, identified as Screener C, the fines from which are transferred to one (1) surge bin and then transferred back to the waste wood-fired burner/ rotary wood dryer, identified as B001.
  - (4) Three (3) pellet storage bins, identified as PB 1, 2 and 3, with the pellets pneumatically transferred to a finished product screener, the fines from which are transferred back to the waste wood-fired burner/ rotary wood dryer, identified as B001, and the pellets are pneumatically conveyed to the pellet bagging and palletizing line after which the product is staged for shipping.

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

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

**D.1.1 Particulate Matter (PM) [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2, particulate emissions from each of the operations shall not exceed the pound per hour limits listed in the table below:

| Emission Unit Description                   | Control Devices                    | Maximum Process Weight Rate (tons/hour) | 326 IAC 6-2-3 Allowable Particulate Emission Rate (lbs/hour) |
|---------------------------------------------|------------------------------------|-----------------------------------------|--------------------------------------------------------------|
| Wood-fired Burner/ Rotary Wood Dryer (B001) | Multiclone (C001)                  | 9.8                                     | 18.91                                                        |
| Hammermill (P001A)                          | Cyclone (C003) and Baghouse (C002) | 9.8                                     | 18.91                                                        |
| Pellet Mill Feed-Sizing Screen (Screener B) | Baghouse (C002)                    | 9.8                                     | 18.91                                                        |
| Pellet Mills A and B                        | Baghouse (C002)                    | 9.8                                     | 18.91                                                        |
| Pellet-Fines Screener (Screener C)          | Baghouse (C002)                    | 9.8                                     | 18.91                                                        |
| Finished Product Screener                   | Baghouse (C002)                    | 9.8                                     | 18.91                                                        |

The pound 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:

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

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

A Preventive Maintenance Plan is required for these facilities and any associated control devices. Section B – Preventive Maintenance Plan contains the Permittee’s obligation with regard to the preventive maintenance plan required by this condition.

**Compliance Determination Requirements**

**D.1.3 Particulate Control**

- (a) In order to comply with Condition D.1.1, the integral multiclone (C001) shall be in operation and control particulate emissions from the wood-fired burner/rotary wood dryer (B001) at all times the wood-fired burner/rotary wood dryer (B001) is in operation.
- (b) The integral cyclone (C003) shall be in operation and control particulate emissions from the pellet refining process units at all times the pellet refining process units are in operation.
- (c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

**MINOR SOURCE OPERATING PERMIT  
ANNUAL NOTIFICATION**

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

|                      |                         |
|----------------------|-------------------------|
| <b>Company Name:</b> | NWP Ligonier, LLC       |
| <b>Address:</b>      | 200 Pennington Way      |
| <b>City:</b>         | Ligonier, Indiana 46767 |
| <b>Phone #:</b>      | 860-877-5320            |
| <b>MSOP #:</b>       | M113-34455-00087        |

I hereby certify that NWP Ligonier, LLC is :

still in operation.

no longer in operation.

I hereby certify that NWP Ligonier, LLC is :

in compliance with the requirements of MSOP M113-34455-00087.

not in compliance with the requirements of MSOP M113-34455-00087.

|                                       |
|---------------------------------------|
| <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**  
**COMPLIANCE AND ENFORCEMENT BRANCH**  
**FAX NUMBER: (317) 233-6865**

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

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

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

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

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

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

DATE/TIME MALFUNCTION STARTED: \_\_\_\_/\_\_\_\_/20\_\_\_\_    \_\_\_\_\_ AM / PM  
ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: \_\_\_\_\_

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE \_\_\_\_/\_\_\_\_/20\_\_\_\_    \_\_\_\_\_ AM/PM

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

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: \_\_\_\_\_

MEASURES TAKEN TO MINIMIZE EMISSIONS: \_\_\_\_\_

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:  
CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL\* SERVICES: \_\_\_\_\_  
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: \_\_\_\_\_  
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: \_\_\_\_\_  
INTERIM CONTROL MEASURES: (IF APPLICABLE) \_\_\_\_\_

MALFUNCTION REPORTED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_  
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

\*SEE PAGE 2

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

**326 IAC 1-6-1 Applicability of rule**

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

**326 IAC 1-2-39 "Malfunction" definition**

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

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

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

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

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

**Source Description and Location**

**Source Name:** NWP Ligonier, LLC  
**Source Location:** 200 Pennington Way, Ligonier, IN 46767  
**County:** Noble  
**SIC Code:** 2499 (Wood Products, Not Elsewhere Classified)  
**Operation Permit No.:** M113-34455-00087  
**Permit Reviewer:** Brian Wright

On April 21, 2014, the Office of Air Quality (OAQ) received an application from NWP Ligonier, LLC related to the operation of a sawdust and wood shaving pelletizing source.

**Existing Approvals**

There have been no previous approvals issued to this source.

**County Attainment Status**

The source is located in Noble County.

| Pollutant                                                                                                                                                                                                                       | Designation                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| SO <sub>2</sub>                                                                                                                                                                                                                 | Better than national standards.                                                                        |
| CO                                                                                                                                                                                                                              | Unclassifiable or attainment effective November 15, 1990.                                              |
| O <sub>3</sub>                                                                                                                                                                                                                  | Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard. <sup>1</sup> |
| PM <sub>2.5</sub>                                                                                                                                                                                                               | Unclassifiable or attainment effective April 5, 2005, for the annual PM <sub>2.5</sub> standard.       |
| PM <sub>2.5</sub>                                                                                                                                                                                                               | Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM <sub>2.5</sub> standard.  |
| PM <sub>10</sub>                                                                                                                                                                                                                | Unclassifiable effective November 15, 1990.                                                            |
| NO <sub>2</sub>                                                                                                                                                                                                                 | Cannot be classified or better than national standards.                                                |
| Pb                                                                                                                                                                                                                              | Unclassifiable or attainment effective December 31, 2011.                                              |
| <sup>1</sup> Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.<br>Unclassifiable or attainment effective April 5, 2005, for PM <sub>2.5</sub> . |                                                                                                        |

- (a) **Ozone Standards**  
 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.
- (b) **PM<sub>2.5</sub>**  
 Noble County has been classified as attainment for PM<sub>2.5</sub>. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM<sub>2.5</sub> emissions. These rules became effective on July 15, 2008. On May 4, 2011, the air pollution control board issued an emergency rule establishing the direct PM<sub>2.5</sub> significant level at ten (10) tons per year. This rule became effective June 28, 2011. Therefore,

direct PM<sub>2.5</sub>, SO<sub>2</sub>, and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

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

#### Fugitive Emissions

- (a) The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-6.1 (Minor Source Operating Permits) applicability.
- (b) Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

#### Background and Description of Permitted Emission Units

The Office of Air Quality (OAQ) has reviewed an application, submitted by NWP Ligonier, LLC on April 21, 2014 relating to the reopening of a closed facility previously permitted by Pennington Seed, Inc. under MSOP No. M113-24133-00087, issued on September 26, 2007. At the request of Pennington Seed, Inc., the old permit was revoked on January 10, 2012, and the facility closed. NWP Ligonier plans to operate the facility as it was originally permitted, and is not adding any new equipment.

The source consists of the following existing emission units:

- (a) One (1) waste wood-fired burner/rotary wood dryer, identified as B001, rated at 30 million British thermal units per hour, constructed in 2007, equipped with an integral multiclone made up of four (4) parallel cyclones for collecting dried wood, identified as C001, exhausted through Stack S001, capacity: 3,750 pounds of wood sawdust fuel per hour and 9.8035 Oven-dried Ton per hour (output of wood being dried).

Note: The Permittee will only combust clean wood in the wood-fired burner (B001). Clean wood consists of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials. Clean wood does not include wood products that have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

- (b) One (1) pellet refining process, identified as P001, constructed in 2007, equipped with a baghouse for particulate control, identified as C002, exhausted through Stack S002, capacity: 19,607 pounds of dried wood per hour, consisting of:
- (1) One (1) hammermill, identified as P001A, with product pneumatically transferred to an integral cyclone, identified as C003, exhausted to the baghouse, identified as C002.
  - (2) One (1) pellet mill feed-sizing screen, identified as Screener B, with product pneumatically transferred to a surge bin.
  - (3) Two (2) pellet mills, identified as Pellet Mills A and B, with pellets pneumatically conveyed to the pellet cooler, identified as Cooler A, and then pneumatically transferred to one (1) pellet-fines screener, identified as Screener C, the fines from which are transferred to one (1) surge bin and then transferred back to the waste wood-fired burner/rotary wood dryer, identified as B001.

- (4) Three (3) pellet storage bins, identified as PB 1, 2 and 3, with the pellets pneumatically transferred to a finished product screener, the fines from which are transferred back to the waste wood-fired burner/rotary wood dryer, identified as B001, and the pellets are pneumatically conveyed to the pellet bagging and palletizing line after which the product is staged for shipping.
- (c) One (1) raw material handling operation, identified as S003, constructed in 2007, consisting of:
  - (1) One (1) storage silo, constructed in 2007, capacity: 14,400 pounds of wood sawdust fuel, and
  - (2) Storage pile, capacity: estimated 8,000 tons of wet wood furnish.
  - (3) Covered storage pad: estimated 2,000 tons of dry wood furnish.
- (d) Unpaved roads with a one (1) way distance of 475 feet.

|                                                     |
|-----------------------------------------------------|
| <b>“Integral Part of the Process” Determination</b> |
|-----------------------------------------------------|

- (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 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 rotary wood dryer process. The primary purpose of the multiclone is to collect the product and not air pollution control. Therefore, potential emissions for particulate matter from the rotary wood dryer were calculated after the multiclone for purposes of determining operating permit level and determining the applicability of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes). However, for purposes of determining the applicability of Prevention of Significant Deterioration (PSD), potential particulate matter emissions from the rotary wood dryer were calculated before the multiclone. Operating conditions in the proposed permit will specify that this multiclone shall operate at all times when the rotary wood dryer is in operation.

Note: IDEM, OAQ has determined that the multiclone will not be considered as an integral part of the waste wood-fired burner, since the control of particulate emissions from the combustion of wood is considered pollution control.

- (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, potential emissions for particulate matter from the hammermill (P001A) were calculated after the cyclone for purposes of determining operating permit level and determining the applicability of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes). However, for purposes of determining the applicability

of Prevention of Significant Deterioration (PSD), potential particulate matter emissions from the hammermill (P001A) were calculated before 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

|                                                      |                   |
|------------------------------------------------------|-------------------|
| Hourly Sawdust Production                            | 3,607 pounds/hour |
| Annual Sawdust Production (based on 8760 hours/year) | 15,799 tons/year  |
| 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 | 30 MMBtu/hr      |
| Average Market Cost for Natural Gas (2012)*  | \$6.07 per MMBtu |
| Hourly Cost for Natural Gas Consumption      | \$182.10         |
| Annual Fuel Cost (based on 8760 hours/year)  | \$1,595,196.00   |

\*Based on most recently available Average Annual Industrial Price for Natural Gas in Indiana of \$6.19/1,000 cubic foot (or \$6.07/MMBtu based on 1,020 MMBtu/MMscf) found on the U.S. Energy Information Administration (EIA) website:  
[http://www.eia.gov/dnav/ng/ng\\_pri\\_sum\\_dcu\\_SIN\\_a.htm](http://www.eia.gov/dnav/ng/ng_pri_sum_dcu_SIN_a.htm)

**Total Economic Impact of Not Operating the Baghouse Based on Maximum Burner Rating With Annual Waste Disposal Cost** **\$1,682,880.45 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 x MMBtu/1,000,000 Btu) 28.856 MMBtu/hr. Using natural gas at a minimum cost of \$6.07 per MMBtu/hr equals \$175.16 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 MMBtu/hr     |
| Average Market Cost for Natural Gas (2012)     | \$6.07 per MMBtu/hr |
| Hourly Cost for Natural Gas Consumption        | \$175.16            |
| Annual Fuel Cost (based on 8760 hours/year)    | \$1,534,365.86      |

**Total Economic Impact of Not Operating  
the Baghouse Based on Wood Fuel Available  
With Annual Waste Disposal Cost** **\$1,622,050.31 per year**

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 x MMBtu/1,000,000 Btu) 28.856 MMBtu/hr. Using No. 2 fuel oil at a minimum cost of \$2.42 per gallon at a 0.138 MMBtu 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 \$506.03 per hour for the burner/rotary wood dryer, identified as B001.

|                                                |                   |
|------------------------------------------------|-------------------|
| Actual Heat Input for Burner/Rotary Wood Dryer | 28.856 MMBtu/hr   |
| Average Market Cost for No. 2 Fuel Oil (2010)* | \$2.42 per gallon |
| Hourly Cost for No. 2 Fuel Oil Consumption     | \$506.03          |
| Annual Fuel Cost (based on 8760 hours/year)    | \$4,432,783.44    |

\*Based on most recently available Average Annual Industrial Price for No. 2 Distillate Fuel Oil in Indiana found on the U.S. Energy Information Administration (EIA) website:  
[http://www.eia.gov/dnav/pet/pet\\_sum\\_mkt\\_dc\\_u\\_sin\\_a.htm](http://www.eia.gov/dnav/pet/pet_sum_mkt_dc_u_sin_a.htm)

**Total Economic Impact of Not Operating  
the Baghouse Based on Wood Fuel Available  
With Annual Waste Disposal Cost** **\$4,520,467.89**

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. 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 x MMBtu/1,000,000 Btu) 28.856 MMBtu/hr. Using wood waste at a minimum cost of \$1.43 per MMBtu/hr equals \$41.26 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 MMBtu/hr     |
| Average Market Cost for Wood Waste (2012)*     | \$1.43 per MMBtu/hr |
| Hourly Cost for Waste Sawdust Consumption      | \$41.26             |
| Annual Fuel Cost (based on 8760 hours/year)    | \$361,473.34        |

**Total Economic Impact of Not Operating  
the Baghouse Based on Wood Fuel Available  
With Annual Waste Disposal Cost** **\$449,157.79**

\*Based on most recently available Average Annual Industrial Price for Wood Waste in Indiana found on the U.S. Energy Information Administration (EIA) website:

[http://www.eia.gov/state/seds/data.cfm?incfile=/state/seds/sep\\_fuel/html/fuel\\_pr\\_ww.html](http://www.eia.gov/state/seds/data.cfm?incfile=/state/seds/sep_fuel/html/fuel_pr_ww.html)

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       |
|     | <b>Total Direct Operating Cost Per Year</b> | <b>\$22,653.16</b> |

Based on the cost analyses detailed above, NWP Ligonier, LLC will save at least \$426,504.63 (\$449,157.79 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, NWP Ligonier, LLC will save \$1,599,397.15 (\$1,622,050.31 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, NWP Ligonier, LLC will save \$4,497,814.73 (\$4,520,467.89 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 has determined that the baghouse, identified as C002, is not considered as an integral part of the pellet refining process. IDEM OAQ does not agree with the methodology used in the economic analysis. Since the sawdust collected by the baghouse could be recycled back into the final wood pellet product, IDEM OAQ does not agree that the cost of sawdust disposal should be included in the economic analysis. In addition, since the source has already purchased the raw wood material as an input to the pelletizing process, IDEM OAQ does not agree that the cost of purchasing wood or waste sawdust for combustion in the burner/rotary wood dryer (B001) should be included in the economic analysis. Therefore, potential emissions for particulate matter from the pellet refining process were calculated before the baghouse for purposes of determining operating permit level, determining the applicability of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), and determining the applicability of Prevention of Significant Deterioration (PSD).

**Enforcement Issues**

There are no pending enforcement actions related to this source.

**Emission Calculations**

See Appendix A of this TSD for detailed emission calculations.

**Permit Level Determination – MSOP**

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

| Pollutant                 | Potential To Emit (tons/year) |
|---------------------------|-------------------------------|
| PM                        | 94.09                         |
| PM10 <sup>(1)</sup>       | 89.44                         |
| PM2.5                     | 82.59                         |
| SO <sub>2</sub>           | 3.29                          |
| NO <sub>x</sub>           | 64.39                         |
| VOC                       | 15.97                         |
| CO                        | 24.56                         |
| GHGs as CO <sub>2</sub> e | 27,913                        |

(1) Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10) and particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers (PM2.5), not particulate matter (PM), are each considered as a "regulated air pollutant".

| HAPs              | Potential To Emit (tons/year) |
|-------------------|-------------------------------|
| Hydrogen Chloride | 2.50                          |
| <b>TOTAL HAPs</b> | <b>4.40</b>                   |

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of PM10, PM2.5, NOx, and CO are each less than one hundred (100) tons per year, but greater than or equal to twenty-five (25) tons per year. The PTE of all other regulated criteria pollutants are less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. A Minor Source Operating Permit (MSOP) will be issued.
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.
- (c) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) greenhouse gases (GHGs) is less than the Title V subject to regulation threshold of one hundred thousand (100,000) tons of CO<sub>2</sub> equivalent emissions (CO<sub>2</sub>e) per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

**Federal Rule Applicability Determination**

New Source Performance Standards (NSPS)

- (a) The requirements of the New Source Performance Standard for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Db (326 IAC 12), are not included in the

- permit, since the wood-fired burner/rotary wood dryer (B001) is not a steam generating unit as defined by 40 CFR 60.41b.
- (b) The requirements of the New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (326 IAC 12), are not included in the permit, since the wood-fired burner/rotary wood dryer (B001) is not a steam generating unit as defined by 40 CFR 60.41c.
  - (c) The requirements of the New Source Performance Standard for New Residential Wood Heaters, 40 CFR 60, Subpart AAA (326 IAC 12), are not included in the permit, since the wood-fired burner/rotary wood dryer (B001) is not a residential wood heater as defined by 40 CFR 60.531.
  - (d) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

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

- (e) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD (326 IAC 20-95), are not included in the permit for the wood-fired burner/rotary wood dryer (B001), since the wood-fired burner/rotary wood dryer (B001) is not a process heater as defined by 40 CFR 63.7575 and this source is not a major source for HAPs. The wood-fired burner/rotary wood dryer (B001) is not a process heater, since it transfers heat directly to the wood being dried (i.e., the combustion gases come into direct contact with the wood being dried).
- (f) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJJ (326 IAC 20), are not included in the permit, since the wood-fired burner/rotary wood dryer (B001) is not a steam generating unit as defined by 40 CFR 63.11237.
- (g) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

#### Compliance Assurance Monitoring (CAM)

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

|                                               |
|-----------------------------------------------|
| <b>State Rule Applicability Determination</b> |
|-----------------------------------------------|

The following state rules are applicable to the source:

- (a) 326 IAC 2-6.1 (Minor Source Operating Permits (MSOP))  
MSOP applicability is discussed under the Permit Level Determination – MSOP section above.
- (b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))  
This source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit of all attainment regulated criteria pollutants are less than 250 tons per year and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1). The potential to emit greenhouse gases (GHGs) is less than the PSD subject to regulation threshold of one hundred thousand (100,000) tons of CO<sub>2</sub> equivalent emissions (CO<sub>2</sub>e) per year. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.
- (c) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))  
The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an

area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.

- (d) 326 IAC 2-6 (Emission Reporting)  
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (e) 326 IAC 5-1 (Opacity Limitations)  
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
- (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (f) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)  
The source is subject to the requirements of 326 IAC 6-4, because the fugitive roads and storage piles have the potential to emit fugitive particulate emissions. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.
- (g) 326 IAC 12 (New Source Performance Standards)  
See Federal Rule Applicability Section of this TSD.
- (h) 326 IAC 20 (Hazardous Air Pollutants)  
See Federal Rule Applicability Section of this TSD.

Wood-Fired Burner/Rotary Wood Dryer (B001)

- (i) 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)  
The wood-fired burner/rotary wood dryer (B001) is not subject to the requirements of 326 IAC 6-2 since it is not a source of indirect heat.
- (j) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)  
Pursuant to 326 IAC 6-3-1(b), the requirements of 326 IAC 6-3-2 are applicable to the wood-fired burner/rotary wood dryer (B001), since it has potential particulate emissions of greater than five hundred fifty-one thousandths (0.551) pound per hour. Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the wood-fired burner/rotary wood dryer (B001) shall not exceed 18.91 pounds per hour when operating at a process weight rate of 9.8 tons per hour. The pound 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:

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

In order to comply with this limit, the integral multiclone (C001) shall be in operation and control particulate emissions from the wood-fired burner/rotary wood dryer (B001) at all times the wood-fired burner/rotary wood dryer (B001) is in operation.

Pellet Refining Process

- (k) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)  
 Pursuant to 326 IAC 6-3-1(b), the requirements of 326 IAC 6-3-2 are applicable to the pellet refining process units, since each unit has potential particulate emissions of greater than five hundred fifty-one thousandths (0.551) pound per hour. Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the following pellet refining process units shall not exceed pounds per hour limitations as follows

| Emission Unit Description                   | Control Devices                    | Maximum Process Weight Rate (tons/hour) | 326 IAC 6-2-3 Allowable Particulate Emission Rate (lbs/hour) | PTE of PM Before Integral Cyclone Controls (lbs/hour) | PTE of PM After Integral Cyclone Controls (lbs/hour) |
|---------------------------------------------|------------------------------------|-----------------------------------------|--------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------|
| Hammermill (P001A)                          | Cyclone (C003) and Baghouse (C002) | 9.8                                     | 18.91                                                        | 3.43                                                  | 0.17                                                 |
| Pellet Mill Feed-Sizing Screen (Screener B) | Baghouse (C002)                    | 9.8                                     | 18.91                                                        | 2.94                                                  | 2.94                                                 |
| Pellet Mills A and B                        | Baghouse (C002)                    | 9.8                                     | 18.91                                                        | 2.94                                                  | 2.94                                                 |
| Pellet-Fines Screener (Screener C)          | Baghouse (C002)                    | 9.8                                     | 18.91                                                        | 2.94                                                  | 2.94                                                 |
| Finished Product Screener                   | Baghouse (C002)                    | 9.8                                     | 18.91                                                        | 2.94                                                  | 2.94                                                 |

The pound 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:

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

Based on the table above, the cyclone (C003) and baghouse (C002) are not needed to comply with the 326 IAC 6-2-3 Allowable Particulate Emission Rate. However, since cyclone (C003) is considered an integral part of the integral part of the hammermill (P001A), the integral cyclone (C003) shall be in operation and control particulate emissions from the hammermill (P001A) at all times the hammermill (P001A) is in operation.

**Compliance Determination, Monitoring and Testing Requirements**

There are no compliance determination and monitoring requirements applicable to this source.

**Conclusion and Recommendation**

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on April 21, 2014.

The operation of this source shall be subject to the conditions of the attached proposed New Source Review and MSOP No. M113-34455-00087. The staff recommends to the Commissioner that this New Source Review and MSOP be approved.

**IDEM Contact**

- (a) Questions regarding this proposed permit can be directed to Brian Wright at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-6544 toll free at 1-800-451-6027 extension 4-6544.

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

**Appendix A: Emissions Calculations  
Emissions Summary**

**Company Name:** NWP Ligonier, LLC  
**Source Address:** 200 Pennington Way, Ligonier, IN 46767  
**Permit Number:** M113-34455-00087  
**Reviewer:** Brian Wright

**Uncontrolled/Unlimited Potential to Emit (PTE) (tons/year) (Before Integral Controls)**

| <b>Emission Units</b>                  | <b>PM</b>     | <b>PM-10</b>  | <b>PM2.5</b>  | <b>SO2</b>  | <b>NOx</b>   | <b>VOC</b>   | <b>CO</b>    | <b>GHGs as CO2e</b> | <b>Total HAPs</b> | <b>Single HAP</b> |                          |
|----------------------------------------|---------------|---------------|---------------|-------------|--------------|--------------|--------------|---------------------|-------------------|-------------------|--------------------------|
| Wood-Fired Pellet Dryer                | 142.56        | 49.54         | 42.97         | 3.29        | 64.39        | 15.97        | 24.56        | 27,913              | 4.40              | 2.50              | Hydrogen chloride        |
| Pellet Refining Process                | 66.53         | 66.53         | 66.53         | 0.00        | 0.00         | 0.00         | 0.00         | 0.00                | 0.00              | 0.00              |                          |
| Storage Piles (fugitive)               | 13.48         | 13.09         | 13.09         | 0.00        | 0.00         | 0.00         | 0.00         | 0.00                | 0.00              | 0.00              |                          |
| Unpaved Roads (fugitive)               | 1.55          | 0.31          | 0.03          | 0.00        | 0.00         | 0.00         | 0.00         | 0.00                | 0.00              | 0.00              |                          |
| <b>Total (Non-fugitive)</b>            | <b>209.09</b> | <b>116.07</b> | <b>109.50</b> | <b>3.29</b> | <b>64.39</b> | <b>15.97</b> | <b>24.56</b> | <b>27,913</b>       | <b>4.40</b>       | <b>2.50</b>       | <b>Hydrogen chloride</b> |
| <b>Total (Fugitive)</b>                | <b>15.02</b>  | <b>13.40</b>  | <b>13.12</b>  | <b>0.00</b> | <b>0.00</b>  | <b>0.00</b>  | <b>0.00</b>  | <b>0</b>            | <b>0.00</b>       | <b>0.00</b>       |                          |
| <b>Total (Non-fugitive + Fugitive)</b> | <b>224.11</b> | <b>129.47</b> | <b>122.62</b> | <b>3.29</b> | <b>64.39</b> | <b>15.97</b> | <b>24.56</b> | <b>27,913</b>       | <b>4.40</b>       | <b>2.50</b>       | <b>Hydrogen chloride</b> |

**Unlimited Potential to Emit (PTE) (tons/year) (After Integral Controls)**

| <b>Emission Units</b>                  | <b>PM</b>    | <b>PM-10</b> | <b>PM2.5</b> | <b>SO2</b>  | <b>NOx</b>   | <b>VOC</b>   | <b>CO</b>    | <b>GHGs as CO2e</b> | <b>Total HAPs</b> | <b>Single HAP</b> |                          |
|----------------------------------------|--------------|--------------|--------------|-------------|--------------|--------------|--------------|---------------------|-------------------|-------------------|--------------------------|
| Wood-Fired Pellet Dryer                | 52.56        | 49.54        | 42.97        | 3.29        | 64.39        | 15.97        | 24.56        | 27,913              | 4.40              | 2.50              | Hydrogen chloride        |
| Pellet Refining Process                | 26.51        | 26.51        | 26.51        | 0.00        | 0.00         | 0.00         | 0.00         | 0                   | 0.00              | 0.00              |                          |
| Storage Piles (fugitive)               | 13.48        | 13.09        | 13.09        | 0.00        | 0.00         | 0.00         | 0.00         | 0                   | 0.00              | 0.00              |                          |
| Unpaved Roads (fugitive)               | 1.55         | 0.31         | 0.03         | 0.00        | 0.00         | 0.00         | 0.00         | 0                   | 0.00              | 0.00              |                          |
| <b>Total (Non-fugitive)</b>            | <b>79.07</b> | <b>76.04</b> | <b>69.47</b> | <b>3.29</b> | <b>64.39</b> | <b>15.97</b> | <b>24.56</b> | <b>27,913</b>       | <b>4.40</b>       | <b>2.50</b>       | <b>Hydrogen chloride</b> |
| <b>Total (Fugitive)</b>                | <b>15.02</b> | <b>13.40</b> | <b>13.12</b> | <b>0.00</b> | <b>0.00</b>  | <b>0.00</b>  | <b>0.00</b>  | <b>0</b>            | <b>0.00</b>       | <b>0.00</b>       |                          |
| <b>Total (Non-fugitive + Fugitive)</b> | <b>94.09</b> | <b>89.44</b> | <b>82.59</b> | <b>3.29</b> | <b>64.39</b> | <b>15.97</b> | <b>24.56</b> | <b>27,913</b>       | <b>4.40</b>       | <b>2.50</b>       | <b>Hydrogen chloride</b> |

**Appendix A: Emissions Calculations**  
**Wood-Fired Pellet Dryer**  
**Dry Wood Waste Combustion**  
**Drying of Wood Pellets**

**Company Name:** NWP Ligonier, LLC  
**Source Address:** 200 Pennington Way, Ligonier, IN 46767  
**Permit Number:** M113-34455-00087  
**Reviewer:** Brian Wright

|                                            |        |
|--------------------------------------------|--------|
| Capacity of Wood-Fired Burner (MMBtu/hr)   | 30     |
| Capacity of Wood-Fired Burner (tons/hr)    | 1.875  |
| Capacity of Wood Dryer (ODT/hr)            | 9.8035 |
| Integral Cyclone (C001) Control Efficiency | 95%    |

|                                                                                       | Pollutant     |              |              |             |              |              |              |
|---------------------------------------------------------------------------------------|---------------|--------------|--------------|-------------|--------------|--------------|--------------|
|                                                                                       | PM            | PM10         | PM2.5        | SO2         | NOx          | VOC          | CO**         |
| Wood Combustion Uncontrolled Emission Factor (lb/MMBtu)*                              | 0.4           | 0.377        | 0.327        | 0.025       | 0.49         | 0.013        |              |
| Wood Combustion Uncontrolled Emission Factor (lb/ton)                                 |               |              |              |             |              |              | 2.99         |
| Wood Drying Uncontrolled Emission Factor (lb/ODT) (hardwood only)***                  | 3.30          | 0.900        | 0.900        | ---         | 0.920        | 0.240        | ---          |
| Wood Drying Uncontrolled Emission Factor (lb/ODT) (80% hardwood/20% softwood)***      | 3.32          | 0.898        | 0.898        | ---         | 0.852        | 0.372        | ---          |
| Wood Combustion Uncontrolled Potential Emissions (tons/yr)                            | 52.56         | 49.54        | 42.97        | 3.29        | 64.39        | 1.71         | 24.56        |
| Wood Drying Potential Emissions (worst case) (Before Integral Cyclone C001) (tons/yr) | 142.56        | 38.65        | 38.65        | 0.00        | 39.50        | 15.97        | 0.00         |
| <b>Worst Case Uncontrolled Potential Emissions (tons/yr)</b>                          | <b>142.56</b> | <b>49.54</b> | <b>42.97</b> | <b>3.29</b> | <b>64.39</b> | <b>15.97</b> | <b>24.56</b> |
| <b>Worst Case Uncontrolled Potential Emissions (lbs/hr)</b>                           | <b>32.55</b>  | ---          | ---          | ---         | ---          | ---          | ---          |
| Wood Combustion Uncontrolled Potential Emissions (tons/yr)                            | 52.56         | 49.54        | 42.97        | 3.29        | 64.39        | 1.71         | 24.56        |
| Wood Drying Potential Emissions (worst case) (After Integral Cyclone C001) (tons/yr)  | 7.13          | 1.93         | 1.93         | 0.00        | 39.50        | 15.97        | 0.00         |
| <b>Worst Case Potential Emissions (tons/yr)</b>                                       | <b>52.56</b>  | <b>49.54</b> | <b>42.97</b> | <b>3.29</b> | <b>64.39</b> | <b>15.97</b> | <b>24.56</b> |
| <b>Worst Case Potential Emissions (lbs/hr)</b>                                        | <b>12.00</b>  | ---          | ---          | ---         | ---          | ---          | ---          |

**Methodology**

Wood Combustion

\*The PM10 and PM2.5 emission factors include the condensible PM emission factor of 0.017 lb/MMBtu, measured by EPA Method 202 (or equivalent) and the appropriate filterable PM emission factor, measured by EPA Method 5 (or equivalent). The PM emission factor is filterable PM measured by EPA Method 5 (or equivalent).

\*\*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. This emission factor is higher than the AP-42 emission factor of 0.6 lb/MMBtu. The worst case CO emissions were calculated using the higher emission factor.

Emission Factors are from AP-42 Chapter 1.6 (revised 3/02), Table 1.6-1 and Table 1.6-2 for combustion of dry wood (uncontrolled). Wet wood is considered to be greater than or equal to 20% moisture content. Dry wood is considered to be less than 20% moisture content.

Wood Combustion Uncontrolled Potential Emissions (tons/yr) = Capacity of Wood-Fired Burner (MMBtu/hr) x Uncontrolled Emission Factor (lb/MMBtu) x 8760 hrs/yr x 1 ton/2000lbs

Wood Combustion Uncontrolled Potential CO Emissions (tons/yr) = Capacity of Wood-Fired Burner (tons/hr) x CO Uncontrolled Emission Factor (lb/ton) x 8760 hrs/yr x 1 ton/2000lbs

Note: IDEM, OAQ has determined that the multiclone will not be considered as an integral part of the waste wood-fired burner, since the control of particulate emissions from the combustion of wood is considered pollution control. However, IDEM, OAQ has agreed that the multiclone will be considered as an integral part of the waste rotary wood dryer process.

Wood Drying

ODT = Oven Dried Ton

\*\*\*The source primarily produces hardwood wood pellets, but may process hardwood/softwood mixtures containing up to 20% softwood. The PM10 and PM2.5 emission factors include the condensible PM emission factor of 0.017 lb/MMBtu, measured by EPA Method 202 (or equivalent) and the appropriate filterable PM emission factor, measured by EPA Method 5 (or equivalent). The PM emission factor is filterable PM measured by EPA Method 5 (or equivalent).

Wood Drying Emission Factors are from AP-42 Chapter 10.6.2 (2/02), Tables 10.6.2-1, 10.6.2-2, and 10.6.2-3 for uncontrolled drying of wood particles (rotary dryer, direct wood-fired, hardwood and softwood).

Wood Drying Potential Emissions (Before Integral Cyclone C001) (tons/yr) = Wood Drying Emission Factor (lb/ODT) x Capacity of Wood Dryer (ODT/hr) x 8760 hrs/yr x 1 ton/2000lbs

Wood Drying Potential Emissions (After Integral Cyclone C001) (tons/yr) = Wood Drying Potential Emissions (Before Integral Cyclone C001) (tons/yr) x [1 - Cyclone Control Efficiency]

Note: IDEM, OAQ has determined that the multiclone will not be considered as an integral part of the waste wood-fired burner, since the control of particulate emissions from the combustion of wood is considered pollution control. However, IDEM, OAQ has agreed that the multiclone will be considered as an integral part of the waste rotary wood dryer process.

|                                | Selected Hazardous Air Pollutants |          |              |                   |          |             |
|--------------------------------|-----------------------------------|----------|--------------|-------------------|----------|-------------|
|                                | Acrolein                          | Benzene  | Formaldehyde | Hydrogen Chloride | Styrene  |             |
| Emission Factor in lb/MMBtu    | 4.00E-03                          | 4.20E-03 | 4.40E-03     | 1.90E-02          | 1.90E-03 |             |
| Potential Emissions in tons/yr | 0.53                              | 0.55     | 0.58         | 2.50              | 0.25     |             |
|                                | <b>Total</b>                      |          |              |                   |          | <b>4.40</b> |

**Methodology**

Emission Factors are from AP-42 Chapter 1.6 (revised 3/02), Table 1.6-3 for combustion of wood residue.

Wood Combustion Potential Emissions (tons/yr) = Maximum Heat Input Capacity (MMBtu/hr) x Emission Factor (lb/MMBtu) x 8760 hrs/yr x 1 ton/2000lbs

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

|                                            | Greenhouse Gases |       |       |
|--------------------------------------------|------------------|-------|-------|
|                                            | CO2              | CH4   | N2O   |
| Emission Factor in kg/MMBtu from 40 CFR 98 | 93.8             | 0.032 |       |
| Emission Factor in lb/MMBtu from AP-42     |                  |       | 0.013 |
| Potential Emission in tons/yr              | 27,173           | 9.3   | 1.7   |
| Summed Potential Emissions in tons/yr      | 27,184           |       |       |
| CO2e Total in tons/yr                      | 27,913           |       |       |

**Methodology**

CO2 and CH4 Emission Factors from Tables C-1 and 2 of 40 CFR Part 98 Subpart C. N2O emission factor from AP-43 Chapter 1.6 (revised 3/02).

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Potential Emission (tons/yr) = Heat Input Capacity MMBtu/hr x Emission Factor (kg/MMBtu) x 2.20462 lb/kg x 8760 hrs/yr /2,000 lb/ton

Potential Emission (tons/yr) = Heat Input Capacity MMBtu/hr x Emission Factor (lb/MMBtu) x 8760 hrs/yr /2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

**Appendix A: Emissions Calculations  
Wood Pellet Refining Process**

**Unlimited Potential to Emit (PTE) PM, PM10 and PM2.5**

**Company Name:** NWP Ligonier, LLC  
**Source Address:** 200 Pennington Way, Ligonier, IN 46767  
**Permit Number:** M113-34455-00087  
**Reviewer:** Brian Wright

| Process                                     | Control Devices                    | Emission Factor (lb/ton)* | Maximum Capacity (ton/hour) | PTE of PM/PM10/PM2.5 (Before Integral Cyclone Control) (lbs/hr) | PTE of PM/PM10/PM2.5 (Before Integral Cyclone Control) (tons/yr) | Cyclone Control Efficiency (%)** | PTE of PM/PM10/PM2.5 (After Integral Cyclone Control) (lbs/hr) | PTE of PM/PM10/PM2.5 (After Integral Cyclone Control) (tons/yr) | Baghouse Control Efficiency (%) | PTE of PM/PM10/PM2.5 (After Baghouse Control) (lbs/hr) | PTE of PM/PM10/PM2.5 (After Baghouse Control) (tons/yr) |
|---------------------------------------------|------------------------------------|---------------------------|-----------------------------|-----------------------------------------------------------------|------------------------------------------------------------------|----------------------------------|----------------------------------------------------------------|-----------------------------------------------------------------|---------------------------------|--------------------------------------------------------|---------------------------------------------------------|
| Hammermill (P001A)                          | Cyclone (C003) and Baghouse (C002) | 0.35                      | 9.8                         | 3.43                                                            | 15.02                                                            | 95%                              | 0.17                                                           | 0.75                                                            | 99%                             | 0.002                                                  | 0.01                                                    |
| Pellet Mill Feed-Sizing Screen (Screener B) | Baghouse (C002)                    | 0.30                      | 9.8                         | 2.94                                                            | 12.88                                                            | 0%                               | 2.94                                                           | 12.88                                                           | 99%                             | 0.029                                                  | 0.13                                                    |
| Pellet Mills A and B                        | Baghouse (C002)                    | 0.30                      | 9.8                         | 2.94                                                            | 12.88                                                            | 0%                               | 2.94                                                           | 12.88                                                           | 99%                             | 0.029                                                  | 0.13                                                    |
| Pellet-Fines Screener (Screener C)          | Baghouse (C002)                    | 0.30                      | 9.8                         | 2.94                                                            | 12.88                                                            | 0%                               | 2.94                                                           | 12.88                                                           | 99%                             | 0.029                                                  | 0.13                                                    |
| Finished Product Screener                   | Baghouse (C002)                    | 0.30                      | 9.8                         | 2.94                                                            | 12.88                                                            | 0%                               | 2.94                                                           | 12.88                                                           | 99%                             | 0.029                                                  | 0.13                                                    |
| <b>Total</b>                                |                                    |                           |                             | <b>66.53</b>                                                    |                                                                  |                                  | <b>26.51</b>                                                   |                                                                 |                                 | <b>0.52</b>                                            |                                                         |

**Methodology**

\*Hammermill (P001A) particulate emissions are estimated using emission factor (lb/ton) from AP-42, Fourth Edition 1985, Chapter 10.3, Table 10.3-1 (log sawing). Worst case particulate emissions from Pellets Mills and Screeners are estimated using emission factor for Fines Screening from AP-42 Section 11.19.2, Crushed Stone Processing and Pulverized Mineral Processing, Table 11.19.2-2 (dated 8/04).

\*\*Only the Hammermill (P001A) is controlled by the Integral Cyclone C003. Therefore 0% control is used for the pellet mills and screeners.

PTE of PM/PM10/PM2.5 (Before Integral Cyclone Control) (lbs/hour) = Emission Factor (lb/ton) \* Maximum Capacity (ton/hour)

PTE of PM/PM10/PM2.5 (Before Integral Cyclone Control) (tons/year) = PTE of PM/PM10/PM2.5 (Before Integral Cyclone Control) (lbs/hour) \* 8760 (hours/year) \* (1 ton/2000 pounds)

PTE of PM/PM10/PM2.5 (After Integral Cyclone Control) (lbs/hour) = PTE of PM/PM10/PM2.5 (Before Integral Cyclone Control) (lbs/hour) \* [1 - Cyclone Control Efficiency]

PTE of PM/PM10/PM2.5 (After Integral Cyclone Control) (tons/year) = PTE of PM/PM10/PM2.5 (Before Integral Cyclone Control) (tons/year) \* [1 - Cyclone Control Efficiency]

PTE of PM/PM10/PM2.5 (After Baghouse Control) (lbs/hour) = PTE of PM/PM10/PM2.5 (After Integral Cyclone Control) (lbs/hour) \* [1 - Baghouse Control Efficiency]

PTE of PM/PM10/PM2.5 (After Baghouse Control) (tons/year) = PTE of PM/PM10/PM2.5 (After Integral Cyclone Control) (tons/year) \* [1 - Baghouse Control Efficiency]

**Appendix A: Emissions Calculations  
Wood Storage Piles, Drop Points and Handling**

**Company Name: NWP Ligonier, LLC  
Source Address: 200 Pennington Way, Ligonier, IN 46767  
Permit Number: M113-34455-00087  
Reviewer: Brian Wright**

**Wind Erosion on Wood Storage Piles (Fugitive)**

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8,760 hours of use and USEPA's AP-42 (Pre 1983 Edition), Section 11.2.3.

|                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| $E_f = 1.7 * (s/1.5) * (365-p) / 235 * (f/15)$ <p>where <math>E_f</math> = total suspended particulate emission factor (lb/acre/day)<br/> <math>s</math> = silt content of material (wt %)<br/> <math>p</math> = 125 days of rain greater than or equal to 0.01 inches per year<br/> <math>f</math> = 15% of wind greater than or equal to 12 mph at the mean pile height</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| Material | Silt Content (wt %) <sup>a</sup> | Emission Factor (lb/acre/day) | Maximum Anticipated Pile Size (acres) | Uncontrolled PTE of PM (tons/yr) | Uncontrolled PTE of PM10/PM2.5 (tons/yr) <sup>b</sup> |
|----------|----------------------------------|-------------------------------|---------------------------------------|----------------------------------|-------------------------------------------------------|
| Wood     | 1.41                             | 1.63                          | 1.00                                  | 0.30                             | 0.10                                                  |

**Methodology**

PTE of PM (tons/yr) = [Emission Factor (lb/acre/day)] \* [Maximum Pile Size (acres)] \* [8760 hours/yr] \* [ton/2000 lbs]

PTE of PM10/PM2.5 (tons/yr) = [Potential PM Emissions (tons/yr)] \* 35%

<sup>a</sup> Silt content values estimated assuming raw material is chipped/ground wood.

<sup>b</sup> PM2.5 emissions assumed equal to PM10 emissions

**Dropping and Handling of Wood (Fugitive)**

The following calculations are used to estimate the amount of emissions created by handling and drop points for raw materials (wet and dry wood furnish).

| Material | Throughput (lbs/hr) | Emission Factor (lb/ton)* | Potential Uncontrolled PM/PM10/PM2.5 Emissions (lb/hr) | Potential Uncontrolled PM/PM10/PM2.5 Emissions (tons/yr) |
|----------|---------------------|---------------------------|--------------------------------------------------------|----------------------------------------------------------|
| Wood     | 19,607              | 0.30                      | 2.94                                                   | 12.88                                                    |

**Methodology**

\*Worst case particulate emissions from handling and drop points for raw materials (wet and dry wood furnish) are estimated using emission factor for Fines Screening from AP-42 Section 11.19.2, Crushed Stone Processing and Pulverized Mineral Processing, Table 11.19.2-2 (dated 8/04).

Potential Uncontrolled PM/PM10/PM2.5 (lb/hr) = [Throughput (lb/hr)] \* [Emission Factor (lb/ton)] \* [ton/2000 lbs]

Potential Uncontrolled PM/PM10,PM2.5 (tons/yr) = [Potential Uncontrolled PM/PM10/PM2.5 (lb/hr)] \* [8760 hours/yr] \* [ton/2000 lbs]

**Total Emissions**

|                                        | Uncontrolled PM (tons/yr) | Uncontrolled PM10/PM2.5 (tons/yr) |
|----------------------------------------|---------------------------|-----------------------------------|
| <b>Total PTE of Wood Storage Piles</b> | <b>13.18</b>              | <b>12.99</b>                      |

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

**Company Name: NWP Ligonier, LLC  
Source Address: 200 Pennington Way, Ligonier, IN 46767  
Permit Number: M113-34455-00087  
Reviewer: Brian Wright**

**Unpaved Roads at Industrial Site**

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (11/2006).

Vehicle Information (provided by source)

| Type             | Maximum number of vehicles | Number of one-way trips per day per vehicle | Maximum trips per day (trip/day) | Maximum Weight Loaded (tons/trip) | Total Weight driven per day (ton/day) | Maximum one-way distance (feet/trip) | Maximum one-way distance (mi/trip) | Maximum one-way miles (miles/day) | Maximum one-way miles (miles/yr) |
|------------------|----------------------------|---------------------------------------------|----------------------------------|-----------------------------------|---------------------------------------|--------------------------------------|------------------------------------|-----------------------------------|----------------------------------|
| Truck (entering) | 1                          | 17.3                                        | 17.3                             | 23                                | 397.4                                 | 475                                  | 0.090                              | 1.6                               | 567.4                            |
| Truck (leaving)  | 1                          | 17.3                                        | 17.3                             | 23                                | 397.4                                 | 475                                  | 0.090                              | 1.6                               | 567.4                            |
| <b>Totals</b>    |                            |                                             | <b>34.6</b>                      |                                   | <b>794.9</b>                          |                                      |                                    | <b>3.1</b>                        | <b>1134.8</b>                    |

Average Vehicle Weight Per Trip = 

|      |
|------|
| 23.0 |
|------|

 tons/trip  
Average Miles Per Trip = 

|      |
|------|
| 0.09 |
|------|

 miles/trip

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

|           | PM   | PM10 | PM2.5 |                                                                                              |
|-----------|------|------|-------|----------------------------------------------------------------------------------------------|
| where k = | 4.9  | 1.5  | 0.15  | lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)                 |
| s =       | 1.4  | 1.4  | 1.4   | % = mean % silt content of unpaved roads (AP-42 Table 13.2.2-1 Sand/Gravel Processing Plant) |
| a =       | 0.7  | 0.9  | 0.9   | = constant (AP-42 Table 13.2.2-2 for Industrial Roads)                                       |
| W =       | 23.0 | 23.0 | 23.0  | tons = average vehicle weight (provided by source)                                           |
| b =       | 0.45 | 0.45 | 0.45  | = constant (AP-42 Table 13.2.2-2 for Industrial Roads)                                       |

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor,  $E_{ext} = E \cdot [(365 - P)/365]$  (Equation 2 from AP-42 13.2.2)

Mitigated Emission Factor,  $E_{ext} = E \cdot [(365 - P)/365]$   
where P = 

|     |
|-----|
| 125 |
|-----|

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

|                                        | PM   | PM10 | PM2.5 |         |
|----------------------------------------|------|------|-------|---------|
| Unmitigated Emission Factor, $E_f =$   | 2.72 | 0.54 | 0.05  | lb/mile |
| Mitigated Emission Factor, $E_{ext} =$ | 1.79 | 0.36 | 0.04  | lb/mile |

| Process          | Unmitigated PTE of PM (tons/yr) | Unmitigated PTE of PM10 (tons/yr) | Unmitigated PTE of PM2.5 (tons/yr) | Mitigated PTE of PM (tons/yr) | Mitigated PTE of PM10 (tons/yr) | Mitigated PTE of PM2.5 (tons/yr) |
|------------------|---------------------------------|-----------------------------------|------------------------------------|-------------------------------|---------------------------------|----------------------------------|
| Truck (entering) | 0.77                            | 0.15                              | 0.02                               | 0.51                          | 0.10                            | 0.01                             |
| Truck (leaving)  | 0.77                            | 0.15                              | 0.02                               | 0.51                          | 0.10                            | 0.01                             |
| <b>Totals</b>    | <b>1.55</b>                     | <b>0.31</b>                       | <b>0.03</b>                        | <b>1.02</b>                   | <b>0.20</b>                     | <b>0.02</b>                      |

**Methodology**

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] \* [Maximum trips per day (trip/day)]  
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]  
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] \* [Maximum one-way distance (mi/trip)]  
Average Vehicle Weight Per Trip (ton/t) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]  
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]  
Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) \* (Unmitigated Emission Factor (lb/mile)) \* (ton/2000 lbs)  
Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) \* (Mitigated Emission Factor (lb/mile)) \* (ton/2000 lbs)

**Abbreviations**

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



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

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

**Michael R. Pence**  
*Governor*

**Thomas W. Easterly**  
*Commissioner*

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

TO: Kenneth Wycherley  
NWP Ligonier, LLC  
One State Street  
Hartford, CT 06103

DATE: August 14, 2014

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

SUBJECT: Final Decision  
MSOP  
113-33445-00087

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

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

A copy of the final decision and supporting materials has also been sent via standard mail to:  
Lynne Santos / Air Quality Associates  
OAQ Permits Branch Interested Parties List

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

Final Applicant Cover letter.dot 6/13/2013



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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**Michael R. Pence**  
*Governor*

**Thomas W. Easterly**  
*Commissioner*

August 14, 2014

TO: Ligonier Public Library

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

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

**Applicant Name: NWP Ligonier, LLC**  
**Permit Number: 113-34455-00087**

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

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

Enclosures  
Final Library.dot 6/13/2013

# Mail Code 61-53

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| IDEM Staff                 | AWELLS 8/14/2014<br>NWP Ligonier LLC 113-34455-00087 Final                        |                                                                                                                                     | Type of Mail:<br><br><b>CERTIFICATE OF MAILING ONLY</b> | AFFIX STAMP<br>HERE IF<br>USED AS<br>CERTIFICATE<br>OF MAILING |
| Name and address of Sender |  | Indiana Department of Environmental Management<br>Office of Air Quality – Permits Branch<br>100 N. Senate<br>Indianapolis, IN 46204 |                                                         |                                                                |

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| 1    |                | Kenneth Wycherley NWP Ligonier LLC One State St c/o Lewis B Rome Esq Hartford CT 06103 (Source CAATS) confirmed delivery |         |                 |                            |               |                 |          |          |          |                |         |
| 2    |                | Noble County Board of Commissioners 101 North Orange Street Albion IN 46701 (Local Official)                             |         |                 |                            |               |                 |          |          |          |                |         |
| 3    |                | Noble County Health Department 2090 N. State Rd 9, Suite C Albion IN 46701-9566 (Health Department)                      |         |                 |                            |               |                 |          |          |          |                |         |
| 4    |                | Mr. Steve Christman NISWMD 2320 W 800 S, P.O. Box 370 Ashley IN 46705 (Affected Party)                                   |         |                 |                            |               |                 |          |          |          |                |         |
| 5    |                | Frederick & Iva Moore 6019 W 650 N Ligonier IN 46767 (Affected Party)                                                    |         |                 |                            |               |                 |          |          |          |                |         |
| 6    |                | Ligonier City Council and Mayors Office 103 West Third Street Ligonier IN 46767 (Local Official)                         |         |                 |                            |               |                 |          |          |          |                |         |
| 7    |                | Ligonier Public Library 300 S Main St Ligonier IN 46767-1812 (Library)                                                   |         |                 |                            |               |                 |          |          |          |                |         |
| 8    |                | Lynne Santos Air Quality Associates 29 Seven Oaks Road North Billerica MA 01862 (Consultant)                             |         |                 |                            |               |                 |          |          |          |                |         |
| 9    |                |                                                                                                                          |         |                 |                            |               |                 |          |          |          |                |         |
| 10   |                |                                                                                                                          |         |                 |                            |               |                 |          |          |          |                |         |
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| 7                                       |                                                |                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |