



# 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: May 14, 2014

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

Source Name: North Central Pallets, Inc.

Permit Level: Registration

Permit Number: 099 - 34153 - 00114

Source Location: 13990 State Road #10, Argos, Indiana

Type of Action Taken: Initial Permit

## Notice of Decision: Approval - Registration

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 34153.

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 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

*(continues on next page)*

If you wish to challenge this decision, IC 4-21.5-3-7 requires 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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## REGISTRATION OFFICE OF AIR QUALITY

**North Central Pallets, Inc.  
13990 State Road #10  
Argos, Indiana 46501**

Pursuant to 326 IAC 2-5.1 (Construction of New Sources: Registrations) and 326 IAC 2-5.5 (Registrations), (herein known as the Registrant) is hereby authorized to construct and operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this registration.

Registration No. R099-34153-00114	
Issued by:  Nathan C. Bell, Section Chief Permits Branch Office of Air Quality	Issuance Date:  May 14, 2014

## SECTION A

## SOURCE SUMMARY

This registration 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 Registrant 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 Registrant to obtain additional permits pursuant to 326 IAC 2.

### A.1 General Information

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The Registrant owns and operates a stationary wood container and pallet manufacturing plant.

Source Address:	13990 State Road #10, Argos, IN 46501
General Source Phone Number:	574-935-4030
SIC Code:	2421
County Location:	Marshall County
Source Location Status:	Nonattainment for PM 2.5 standard Attainment for all other criteria pollutants
Source Status:	Registration

### 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) propane-fired Heat Treat Machine, identified as E1, constructed in 2005, for drying pallets, with a maximum capacity of 0.17 MMBtu per hour, using no control, and exhausting to the atmosphere.
- (b) One (1) Notcher, identified as E2, constructed in 2001, with a maximum capacity of 0.50 tons of wood per hour, using a Sawdust Distribution System for control.
- (c) One (1) Saw, identified as E3, constructed in 1994, with a maximum capacity of 3.00 tons of wood per hour, using a Sawdust Distribution System for control.
- (d) One (1) propane-fired Standard Residential Furnace, identified as E4, constructed in 2000, with a maximum capacity of 0.10 MMBtu per hour, using no control, and exhausting to the atmosphere.
- (e) One (1) propane-fired Tube Radiant Heater, identified as E5, constructed in 2002, with a maximum capacity of 0.10 MMBtu per hour, using no control, and exhausting to the atmosphere.
- (f) One (1) propane-fired Tube Radiant Heater, identified as E6, constructed in 2002, with a maximum capacity of 0.10 MMBtu per hour, using no control, and exhausting to the atmosphere.
- (g) One (1) Chamfer, identified as E7, constructed in 1991, with a maximum capacity of 0.03 tons of wood per hour using a Sawdust Distribution System for control.
- (h) One (1) Grinder, identified as E8, constructed in 2005, with a maximum capacity of 2.00 tons of wood per hour, using no control, and exhausting to the atmosphere.
- (i) One (1) Sawdust Distribution System, identified as SD1, constructed in 1994, with a maximum capacity of 0.35 tons of sawdust per hour, with sawdust pneumatically conveyed to a storage pile located in a 3-sided building, using no control, and exhausting to the atmosphere.

- (j) One (1) sawdust truck loading operation, with a maximum capacity of 0.35 tons of sawdust per hour, using no control, and exhausting to the atmosphere.
- (k) Unpaved roads and parking lots.

## SECTION B

## GENERAL CONDITIONS

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

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Terms in this registration 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 Effective Date of Registration [IC 13-15-5-3]

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Pursuant to IC 13-15-5-3, this registration 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.

### B.3 Registration Revocation [326 IAC 2-1.1-9]

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

- (a) Violation of any conditions of this registration.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this registration.
- (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 registration shall not require revocation of this registration.
- (d) For any cause which establishes in the judgment of IDEM the fact that continuance of this registration is not consistent with purposes of this article.

### B.4 Prior Permits Superseded [326 IAC 2-1.1-9.5]

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- (a) All terms and conditions of permits established prior to Registration No. R099-34153-00114 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 registration.

### B.5 Annual Notification [326 IAC 2-5.1-2(f)(3)] [326 IAC 2-5.5-4(a)(3)]

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Pursuant to 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3):

- (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 registration.
- (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, IN 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.6 Source Modification Requirement [326 IAC 2-5.5-6(a)]**

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Pursuant to 326 IAC 2-5.5-6(a), an application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

**B.7 Registrations [326 IAC 2-5.1-2(i)]**

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Pursuant to 326 IAC 2-5.1-2(i), this registration does not limit the source's potential to emit.

**B.8 Preventive Maintenance Plan [326 IAC 1-6-3]**

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- (a) If required by specific condition(s) in Section D of this registration, the Registrant shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this registration 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 Registrant's control, the PMPs cannot be prepared and maintained within the above time frame, the Registrant may extend the date an additional ninety (90) days provided the Registrant 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 Registrant 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 Registrant 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 Registrant is required by 40 CFR Part 60 or 40 CFR Part 63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such OMM Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

**SECTION C**

**SOURCE OPERATION CONDITIONS**

Entire Source

**Emission Limitations and Standards [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]**

**C.1 Opacity [326 IAC 5-1]**

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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 registration:

- (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.2 Fugitive Dust Emissions [326 IAC 6-4]**

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The Registrant 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).

**SECTION D.1**

**OPERATION CONDITIONS**

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

- (b) One (1) Notcher, identified as E2, constructed in 2001, with a maximum capacity of 0.50 tons of wood per hour, using a Sawdust Distribution System for control.
- (c) One (1) Saw, identified as E3, constructed in 1994, with a maximum capacity of 3.00 tons of wood per hour, using a Sawdust Distribution System for control.
- (g) One (1) Chamfer, identified as E7, constructed in 1991, with a maximum capacity of 0.03 tons of wood per hour using a Sawdust Distribution System for control.
- (h) One (1) Grinder, identified as E8, constructed in 2005, with a maximum capacity of 2.00 tons of wood per hour, using no control, and exhausting to the atmosphere.
- (i) One (1) Sawdust Distribution System, identified as SD1, constructed in 1994, with a maximum capacity of 0.35 tons of sawdust per hour, with sawdust pneumatically conveyed to a storage pile located in a 3-sided building, using no control, and exhausting to the atmosphere.

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

**Emission Limitations and Standards [326 IAC 2-5.1-2(f)(1)] [326 IAC 2-5.5-4(a)(1)]**

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

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the Grinder (E8) shall not exceed the pound per hour limitation listed in the table below when operating at the specified process weight rate.

Process	Maximum Process Weight (tons/hr)	326 IAC 6-3-2 Allowable Particulate Emission Rate (lbs/hr)
Grinder (E8)	2.00	6.52

This limitation was calculated using 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 Particulate Control [326 IAC 6-3-2]**

In order to ensure that the Saw (E3) is exempt from the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the Sawdust Distribution System shall be in operation and control emissions from the Saw (E3) at all times the Saw (E3) is in operation.

D.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for these facilities and their control devices. Section B - Preventive Maintenance Plan contains the Registrant's obligation with regard to the preventive maintenance plan required by this condition.

**SECTION D.2**

**OPERATION CONDITIONS**

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

- (d) One (1) propane-fired Standard Residential Furnace, identified as E4, constructed in 2000, with a maximum capacity of 0.10 MMBtu per hour, using no control, and exhausting to the atmosphere.
- (e) One (1) propane-fired Tube Radiant Heater, identified as E5, constructed in 2002, with a maximum capacity of 0.10 MMBtu per hour, using no control, and exhausting to the atmosphere.
- (f) One (1) propane-fired Tube Radiant Heater, identified as E6, constructed in 2002, with a maximum capacity of 0.10 MMBtu per hour, using no control, and exhausting to the atmosphere.

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

**Emission Limitations and Standards [326 IAC 2-5.1-2(f)(1)] [326 IAC 2-5.5-4(a)(1)]**

**D.2.1 Particulate Matter (PM) Limitations [326 IAC 6-2-4]**

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the propane-fired heating units shall not exceed the pound per hour limitations listed in the table below.

Boiler ID	Maximum Capacity (MMBtu/hr)	Construction Date	Total Sourcewide Capacity (MMBtu/hr)	326 IAC 6-2-4 Allowable Particulate Emission Rate (lbs/MMBtu)
Residential Furnace (E1)	0.100	2000	0.300	0.60
Tube Radiant Heater (E5)	0.100	2002		0.60
Tube Radiant Heater (E6)	0.100	2002		0.60

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

**REGISTRATION  
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3).

<b>Company Name:</b>	North Central Pallets, Inc.
<b>Address:</b>	13990 State Road #10
<b>City:</b>	Argos, IN 46501
<b>Phone Number:</b>	574-935-4030
<b>Registration No.:</b>	R099-34153-00114

I hereby certify that North Central Pallets, Inc. is :

still in operation.

I hereby certify that North Central Pallets, Inc. is :

no longer in operation.

in compliance with the requirements of Registration No. R099-34153-00114.

not in compliance with the requirements of Registration No. R099-34153-00114.

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

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

Technical Support Document (TSD) for a Registration

<b>Source Description and Location</b>
----------------------------------------

<b>Source Name:</b>	<b>North Central Pallets, Inc.</b>
<b>Source Location:</b>	<b>13990 State Road #10, Argos, IN 46501</b>
<b>County:</b>	<b>Marshall</b>
<b>SIC Code:</b>	<b>2421 (Sawmills and Planing Mills, General)</b>
<b>Registration No.:</b>	<b>R099-34153-00114</b>
<b>Permit Reviewer:</b>	<b>Dominic Williams</b>

On February 4, 2014, the Office of Air Quality (OAQ) received an application from North Central Pallets, Inc. related to the operation of an existing stationary wood container and pallet manufacturing plant.

<b>Existing Approvals</b>
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There have been no previous approvals issued to this source.

<b>County Attainment Status</b>
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The source is located in Marshall County.

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O <sub>3</sub>	Unclassifiable or attainment effective 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.	

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

### **Fugitive Emissions**

The fugitive emissions of criteria pollutants, hazardous air pollutants, and greenhouse gases are counted toward the determination of 326 IAC 2-5.1-2 (Registrations) applicability.

### **Background and Description of Emission Units and Pollution Control Equipment**

The Office of Air Quality (OAQ) has reviewed an application, submitted by North Central Pallets, Inc. on February 4, 2014, relating to the continued operation of an existing wood container and pallet manufacturing plant.

The source consists of the following existing emission units:

- (a) One (1) propane-fired Heat Treat Machine, identified as E1, constructed in 2005, for drying pallets, with a maximum capacity of 0.17 MMBtu per hour, using no control, and exhausting to the atmosphere.
- (b) One (1) Notcher, identified as E2, constructed in 2001, with a maximum capacity of 0.50 tons of wood per hour, using a Sawdust Distribution System for control.
- (c) One (1) Saw, identified as E3, constructed in 1994, with a maximum capacity of 3.00 tons of wood per hour, using a Sawdust Distribution System for control.
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- (j) One (1) sawdust truck loading operation, with a maximum capacity of 0.35 tons of sawdust per hour, using no control, and exhausting to the atmosphere.
- (k) Unpaved roads and parking lots.

**“Integral Part of the Process” Determination**

In October 1993 a Final Order Granting Summary Judgment was signed by Administrative Law Judge (“ALJ”) Garrettson resolving an appeal filed by Kimball Hospitality Furniture Inc. (Cause Nos. 92-A-J-730 and 92-A-J-833) related to the method by which IDEM calculated potential emissions from woodworking operations. In his findings, the ALJ determined that particulate controls are necessary for the facility to produce its normal product and are integral to the normal operation of the facility, and therefore, potential emissions should be calculated after controls. Based on this ruling, potential particulate matter emissions from the woodworking operations were calculated after control by the Sawdust Distribution System for purposes of determining operating permit level and 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) applicability. However, for purposes of determining the applicability of Prevention of Significant Deterioration (PSD), potential particulate matter emissions from the woodworking operations were calculated before consideration of the control by the Sawdust Distribution System.

**Enforcement Issues**

IDEM is aware that equipment has been constructed and operated prior to obtaining a registration. IDEM is reviewing this matter and will take the appropriate action. This proposed approval is intended to satisfy the requirements of the registration rules.

**Emission Calculations**

See Appendix A of this TSD for detailed emission calculations.

**Permit Level Determination – Registration**

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

Process/ Emission Unit	Potential To Emit of the Entire Source (tons/year)									
	PM	PM10*	PM2.5*	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHGs as CO <sub>2</sub> e**	Total HAPs	Worst Single HAP
Woodworking Operations***	3.34	1.91	1.91	-	-	-	-	-	-	-
Sawdust Handling	3.09	1.11	1.11	-	-	-	-	-	-	-
Propane Combustion	0.01	0.03	0.03	0.07	0.62	0.05	0.36	12773	negl.	negl.
Unpaved Roads	3.14	0.80	0.08	-	-	-	-	-	-	-
<b>Total PTE of Entire Source</b>	<b>9.58</b>	<b>3.85</b>	<b>3.13</b>	<b>0.07</b>	<b>0.62</b>	<b>0.05</b>	<b>0.36</b>	<b>12773</b>	<b>negl.</b>	<b>negl.</b>
Exemptions Levels**	< 5	< 5	< 5	< 10	< 10	< 10	< 25	< 100,000	< 25	< 10
Registration Levels**	< 25	< 25	< 25	< 25	< 25	< 25	< 100	< 100,000	< 25	< 10

negl. = negligible  
 \*Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a regulated air pollutant".  
 \*\*The 100,000 CO<sub>2</sub>e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.  
 \*\*\*Potential to Emit for woodworking operations is after integral woodworking controls.

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of PM are within the ranges listed in 326 IAC 2-5.1-2(a)(1). The PTE of all other regulated criteria pollutants are less than the ranges listed in 326 IAC 2-5.1-2(a)(1). Therefore, the source is subject to the provisions of 326 IAC 2-5.1-2 (Registrations). A Registration 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 Standards (NSPS) for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971, 40 CFR 60, Subpart D, (326 IAC 12), are not included in the registration, because the four (4) propane-fired units are heating units, not boilers, and each has a maximum heat input capacity of less than two hundred fifty (250) million British thermal units per hour.
- (b) The requirements of the New Source Performance Standards (NSPS) for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, 40 CFR 60, Subpart Da, Standards of Performance (326 IAC 12), are not included in the registration, because the four (4) propane-fired units are heating units, and each is not an electric utility steam generating unit.
- (c) The requirements of the New Source Performance Standards (NSPS) for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Db (326 IAC 12), are not included in the registration, because the four (4) propane-fired units are heating units, not boilers, and each has a maximum heat input capacity of less than one-hundred (100) million British thermal units per hour.
- (d) The requirements of the New Source Performance Standards (NSPS) for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (326 IAC 12), are not included in the registration, because the four (4) propane-fired units are heating units, not boilers, and each has a maximum heat input capacity of less than ten (10) million British thermal units per hour.
- (e) The requirements of the New Source Performance Standards (NSPS) for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60, Subpart JJJJ (326 IAC 12), are not included in the registration, because the four (4) propane-fired units are heating units, not reciprocating internal combustion engines.
- (f) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the registration.

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

- (g) The requirements of the National Emission Standards for Wood Furniture Manufacturing Operations, 40 CFR 63, Subpart JJ (326 IAC 20-14), are not included in this registration, since this source does not manufacture wood furniture or wood furniture components as described in 40 CFR 63.801 and it is not a major source of HAPs. This source consists of woodworking and pallet assembly operations.

- (h) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Plywood and Composite Wood Products, 40 CFR 63, Subpart DDDD, are not included in the registration, since this source does not perform plywood or composite wood products manufacturing and it is not a major source of HAPs. This source consists of woodworking and pallet assembly operations.
- (i) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Wood Building Products, 40 CFR 63, Subpart QQQQ (326 IAC 20-79), are not included in the registration, since this source does not coat wood building products and is not located at a plant site that is a major source of HAPs as defined in 40 CFR Part 63, Subpart A, §63.2. This source manufactures wood pallets, which are not considered wood building products as defined by this rule.
- (j) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wood Preserving Area Sources, 40 CFR Part 63, Subpart QQQQQQ, are not included in the registration because the source is not a wood preserving operation as defined by 40 CFR 63.11433. Under 40 CFR 63.11433, "wood preserving" means the pressure or thermal impregnation of chemicals into wood to provide effective long-term resistance to attack by fungi, bacteria, insects, and marine borers. The only treatment process at this source is a heat treatment which does not impregnate chemicals into the wood.
- (k) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the registration.

#### Compliance Assurance Monitoring (CAM)

- (l) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the registration, 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 2-5.1-2 (Registrations)  
Registration applicability is discussed under the Permit Level Determination – Registration section above.
- (b) 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.
- (c) 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.
- (d) 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 registration:

- (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.
- (e) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)  
 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.
- (f) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)  
 The source is not subject to the requirements of 326 IAC 6-5, because the source does not have potential fugitive particulate emissions greater than 25 tons per year. Therefore, 326 IAC 6-5 does not apply.
- (g) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)  
 Each of the emission units at this source is not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from each emission unit is less than twenty-five (25) tons per year.
- (h) 326 IAC 12 (New Source Performance Standards)  
 See Federal Rule Applicability Section of this TSD.
- (i) 326 IAC 20 (Hazardous Air Pollutants)  
 See Federal Rule Applicability Section of this TSD.

Woodworking Operation and Sawdust Distribution System

- (j) Pursuant to 326 IAC 6-3-1(b), the requirements of 326 IAC 6-3-2 are not applicable to the Notcher (E2), Saw (E3), Chamfer (E7), sawdust distribution system (SD1), and the sawdust truck loading operation, since the potential to emit particulate emissions of each after integral woodworking controls is less than five hundred fifty-one thousandths (0.551) pound per hour.

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the Grinder (E8) shall not exceed the pound per hour limitation listed in the table below when operating at the specified process weight rate.

Process	Uncontrolled PTE of PM (lbs/hr)	PTE of PM After Integral Woodworking Controls (lbs/hr)	Subject to 326 IAC 6-3-2?	Maximum Process Weight (tons/hr)	326 IAC 6-3-2 Allowable Particulate Emission Rate (lbs/hr)	Is a Control Device Needed to Comply with 326 IAC 6-3-2?
Saw (E3)	1.05	0.05	NO	NA	NA	NA
Notcher (E2)	0.18	0.01	NO	NA	NA	NA
Chamfer (E7)	0.01	5.3E-4	NO	NA	NA	NA
Grinder (E8)	0.70	0.70	YES	2.00	6.52	NO
Sawdust Distribution System (SD1)	0.35	0.35	NO	NA	NA	NA
Sawdust truck loading operation	0.35	0.35	NO	NA	NA	NA

NA = Not Applicable

This limitation was calculated using 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:

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

The uncontrolled potential particulate matter emissions of the Grinder (E8) are less than the 326 IAC 6-3-2 allowable emission rate. Therefore, the Grinder (E8) is able to comply with the 326 IAC 6-3 allowable emission rate without the use of particulate controls.

In order to ensure that the Saw (E3) is exempt from the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the Sawdust Distribution System shall be in operation and control emissions from the Saw (E3) at all times the Saw (E3) is in operation.

### Propane Combustion

- (k) 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)  
The one (1) propane-fired Heat Treat Machine (E1) is a source of direct heating. Therefore, the requirements of 326 IAC 6-2 are not applicable.

The three (3) propane-fired heating units, Residential Furnace (E4), Tube Radiant Heater (E5), and Tube Radiant Heater (E6), are each a source of indirect heating (each unit uses propane combustion to produce usable heat that is transferred through a heat-conducting material barrier or by a heat storage medium to the air being heated), and each was constructed after September 21, 1983. Therefore, pursuant to 326 IAC 6-2-1(d), the requirements of 326 IAC 6-2-4 are applicable.

The three (3) propane-fired heating units, identified as E4, E5, and E6, must comply with the PM emission limitations of 326 IAC 6-2-4. This limitation is based on the following equation given in 326 IAC 6-2-4:

$$P_t = (1.09)/(Q^{0.26})$$

Where:

P<sub>t</sub> = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input.

Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

The PM limits are calculated based on the total source capacity at the time that each boiler was installed. Therefore, the Pt for each boiler is calculated as follows:

Boiler ID	Maximum Capacity (MMBtu/hr)	Construction Date	Total Source-wide Capacity (MMBtu/hr)	326 IAC 6-2-4 Allowable Particulate Emission Rate (lbs/MMBtu)
Residential Furnace (E4)	0.100	2000	0.100	0.60
Tube Radiant Heater (E5)	0.100	2002	0.300	0.60
Tube Radiant Heater (E6)	0.100	2002		

For Q less than 10 MMBtu per hour, Pt shall not exceed 0.6. Therefore, particulate emissions from the propane-fired heating units E4, E5, and E6 shall not exceed 0.6 pounds per million Btu (lb/MMBtu) heat input.

- (l) 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)  
Pursuant to 326 IAC 7-1.1-1, the propane-fired heating units, E4, E5, and E6, are not subject to the requirements of 326 IAC 7-1.1, since each has unlimited sulfur dioxide (SO<sub>2</sub>) emissions less than twenty-five (25) tons per year and ten (10) pounds per hour respectively.

#### 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 February 4, 2014.

The operation of this source shall be subject to the conditions of the attached proposed Registration No. R099-34153-00114. The staff recommends to the Commissioner that this Registration be approved.

#### IDEM Contact

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

**Attachment A: Emissions Calculations  
Summary**

**Company Name: North Central Pallets, Inc.  
Source Address: 13990 State Road #10, Argos, IN 46501  
Registration Number: R099-34153-00114  
Reviewer: Dominic Williams**

<b>Unlimited Potential to Emit (tons/year) Before Integral Woodworking Controls*</b>											
<b>Emissions Unit</b>	<b>PM</b>	<b>PM10</b>	<b>PM2.5</b>	<b>SO<sub>2</sub></b>	<b>NOx</b>	<b>VOC</b>	<b>CO</b>	<b>GHGs as CO2e</b>	<b>Total HAPs</b>	<b>Highest Single HAP</b>	
Woodworking Operations	8.48	4.84	4.84	-	-	-	-	-	-	-	-
Sawdust Handling	3.09	1.11	1.11	-	-	-	-	-	-	-	-
Propane Combustion	0.01	0.03	0.03	0.07	0.62	0.05	0.36	12773	negl.	negl.	negl.
Unpaved Roads	3.14	0.80	0.08	-	-	-	-	-	-	-	-
<b>Total</b>	<b>14.72</b>	<b>6.79</b>	<b>6.07</b>	<b>0.07</b>	<b>0.62</b>	<b>0.05</b>	<b>0.36</b>	<b>12773</b>	<b>negl.</b>	<b>negl.</b>	<b>negl.</b>

<b>Unlimited Potential to Emit (tons/year) After Integral Woodworking Controls*</b>											
<b>Emissions Unit</b>	<b>PM</b>	<b>PM10</b>	<b>PM2.5</b>	<b>SO<sub>2</sub></b>	<b>NOx</b>	<b>VOC</b>	<b>CO</b>	<b>GHGs as CO2e</b>	<b>Total HAPs</b>	<b>Highest Single HAP</b>	
Woodworking Operations	3.34	1.91	1.91	-	-	-	-	-	-	-	-
Sawdust Handling	3.09	1.11	1.11	-	-	-	-	-	-	-	-
Propane Combustion	0.01	0.03	0.03	0.07	0.62	0.05	0.36	12773	negl.	negl.	negl.
Unpaved Roads	3.14	0.80	0.08	-	-	-	-	-	-	-	-
<b>Total</b>	<b>9.58</b>	<b>3.85</b>	<b>3.13</b>	<b>0.07</b>	<b>0.62</b>	<b>0.05</b>	<b>0.36</b>	<b>12773</b>	<b>negl.</b>	<b>negl.</b>	<b>negl.</b>

\*In October 1993 a Final Order Granting Summary Judgment was signed by Administrative Law Judge ("ALJ") Garretson resolving an appeal filed by Kimball Hospitality Furniture Inc. (Cause Nos. 92-A-J-730 and 92-A-J-833) related to the method by which IDEM calculated potential emissions from woodworking operations. In his findings, the ALJ determined that particulate controls are necessary for the facility to produce its normal product and are integral to the normal operation of the facility, and therefore, potential emissions should be calculated after controls. Based on this ruling, potential particulate matter emissions from the woodworking operations were calculated after control by the Sawdust Distribution System for purposes of determining operating permit level and 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) applicability. However, for purposes of determining the applicability of Prevention of Significant Deterioration (PSD), potential particulate matter emissions from the woodworking operations were calculated before consideration of the control by the Sawdust Distribution System.

**Appendix A: Emissions Calculations  
Woodworking Area and Sawdust Storage Bin**

**Company Name: North Central Pallets, Inc.  
Source Address: 13990 State Road #10, Argos, IN 46501  
Registration Number: R099-34153-00114  
Reviewer: Dominic Williams**

Process	Maximum Throughput (tons/hr)	Uncontrolled Emission Factor (lb/ton)**		Uncontrolled Potential Emissions (lbs/hr)		Uncontrolled Potential Emissions (tons/yr)		Control Device	Control Efficiency	Controlled Potential Emissions (lbs/hr)		Controlled Potential Emissions (tons/yr)	
		PM	PM10/PM2.5*	PM	PM10/PM2.5*	PM	PM10/PM2.5*			PM	PM10/PM2.5*	PM	PM10/PM2.5*
Saw (E3)	3.00	0.35	0.200	1.05	0.60	4.60	2.63	Sawdust Distribution System	95%	0.05	0.03	0.23	0.13
Notcher (E2)	0.50	0.35	0.200	0.18	0.10	0.77	0.44	Sawdust Distribution System	95%	0.01	0.01	0.04	0.02
Chamfer (E7)	0.03	0.35	0.200	0.01	0.006	0.05	0.03	Sawdust Distribution System	95%	5.3E-04	3.0E-04	2.3E-03	1.3E-03
Grinder (E8)***	2.00	0.35	0.200	0.70	0.40	3.07	1.75	None	0%	0.70	0.40	3.07	1.75
		<b>Total</b>		<b>8.48</b>		<b>4.84</b>				<b>Total</b>		<b>3.34</b>	

**Methodology**

\*PM2.5 emissions assumed equal to PM10 emissions.

\*\*Emission Factors are from Fire Version 5.0 Source Classification Codes and Emission Factor Listing for Criteria Air Pollutants

EPA-454/R-95-012, August 1995, for Sawmill Operations for SCC 3-07-008-02 (Log Sawing)

\*\*\*Grinder maximum throughput based on 840 yards per week. Assumed weight 800 pounds per yard.

Maximum Throughput (lbs/hr) = [Maximum Throughput (tons/hr)] \* [2000 lbs/ton]

Uncontrolled Potential Emissions (lbs/hr) = [Maximum Throughput (lbs/hr)] \* [ton/2,000 lbs] \* [Uncontrolled Emission Factor (lbs/ton)]

Uncontrolled Potential Emissions (tons/yr) = [Uncontrolled Potential Emissions (lbs/hr)] \* [8,760 hrs/yr] \* [ton/2,000 lbs]

Controlled Potential Emissions (lbs/hr) = [Uncontrolled Potential Emissions (lbs/hr)] \* [1 - Control Efficiency]

Controlled Potential Emissions (tons/yr) = [Controlled Potential Emissions (lbs/hr)] \* [8760 hrs/yr] \* [ton/2,000 lbs]

**326 IAC 6-3-2**

Process	Uncontrolled PTE of PM (lbs/hr)	PTE of PM After Integral Woodworking Controls (lbs/hr)	Subject to 326 IAC 6-3-2?	Maximum Process Weight (tons/hr)	326 IAC 6-3-2 Allowable Particulate Emission Rate (lbs/hr)	Is a Control Device Needed to Comply with 326 IAC 6-3-2?
Saw (E3)	1.05	0.05	No	3.00	NA	NA
Notcher (E2)	0.18	0.01	No	0.50	NA	NA
Chamfer (E7)	0.01	0.00	No	0.03	NA	NA
Grinder (E8)	0.70	0.70	Yes	2.00	6.52	No

Allowable emissions under 326 IAC 6-3-2 are calculated using the equation where the process weight rate is up to sixty thousand (60,000) pounds per hour:

$$E = 4.10 P^{0.67} \text{ where}$$

E = rate of emission in pounds per hour and

P = process weight rate in tons per hour

**TSD Appendix A: Emission Calculations  
Sawdust Handling Emissions**

**Company Name:** North Central Pallets, Inc.  
**Source Address:** 13990 State Road #10, Argos, IN 46501  
**Registration Number:** R099-34153-00114  
**Reviewer:** Dominic Williams

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

Emission Unit ID	Process Description	Maximum Throughput (tons/year)*	Emission Factor (lbs/ton)**	Pollutant	PTE (lbs/yr)	PTE (lbs/hr)	PTE (tons/yr)
Sawdust Distribution System (SD1)	Sawdust is conveyed through ductwork powered by fans from the sawmill operations to a semi-enclosed storage site	3094	1.0	PM	3094.00	0.35	1.55
		3094	0.36	PM10	1113.84	0.13	0.56
		3094	0.36	PM2.5	1113.84	0.13	0.56
Truck Loading of Sawdust	Sawdust is loaded from the semi-enclosed site into a semi trailer that is backed up to the semi-enclosed site	3094	1.0	PM	3094.00	0.35	1.55
		3094	0.36	PM10	1113.84	0.13	0.56
		3094	0.36	PM2.5	1113.84	0.13	0.56

\* Maximum Throughput based upon 59.5 tons per week, 52 weeks per year.

\*\* Sawdust handling emission factor is available only for PM10. Therefore, PM2.5 emissions were assumed equal to PM10.

<b>Totals</b>	
Pollutant	PTE (tons/yr)
PM	<b>3.09</b>
PM10	<b>1.11</b>
PM2.5	<b>1.11</b>

**METHODOLOGY**

Emission Factors are from AIRS Facility Subsystem Source Classification Codes and Emission Factor Listing for Criteria Air Pollutants EPA March 1990 for Sawmill Operations (sawdust pile handling) (SCC 3-07-008-03)

Potential to Emit (lbs/yr) = [Maximum Throughput (tons/year)] \* [Emission Factor (lbs/ton)]

Potential to Emit (tons/yr) = [Potential to Emit (lbs/yr)] \* [ton/2000 lbs]

**326 IAC 6-3-2**

Process	Uncontrolled PTE of PM (lbs/hr)	Subject to 326 IAC 6-3-2?
Sawdust Distribution System (SD1)	0.35	No
Truck Loading of Sawdust	0.35	No

**Emission Calculations  
Propane Combustion  
Capacity <10 MMBtu/hr**

**Company Name: North Central Pallets, Inc.  
Source Address: 13990 State Road #10, Argos, IN 46501  
Registration Number: R099-34153-00114  
Reviewer: Dominic Williams**

Unit	Maximum Heat Input Capacity (MMBtu/hr)	High Heat Value (MMBtu/1,000 gal)	Potential Throughput (1,000 gal/yr)
Heat Treat Machine (E1)	0.17	91.5	16.28
Residential Furnace (E4)	0.1	91.5	9.57
Tube Radiant Heater (E5)	0.1	91.5	9.57
Tube Radiant Heater (E6)	0.1	91.5	9.57
<b>Totals</b>	<b>0.470</b>		<b>45.00</b>

Criteria Pollutants	Pollutant						
	PM*	PM10*	PM2.5**	SO <sub>2</sub> ***	NO <sub>x</sub>	VOC	CO
Emission Factor in lb/1,000 gal	0.2	0.7	0.7	1.5 (0.10xS)	13	1.0 ****TOC value	7.5
Potential Emission in tons/yr	9.5E-03	0.03	0.03	0.07	0.62	0.05	0.36

\*PM emission factor is filterable PM only. PM emissions are stated to be all less than 10 microns in aerodynamic equivalent diameter, footnote in Table 1.5-1, therefore PM10 is based on the filterable and condensable PM emission factors.

\*\* No direct PM2.5 emission factor was given. Direct PM2.5 is a subset of PM10. If one assumes all PM10 to be all direct PM2.5, then a worst case assumption of direct PM2.5 can be made.

\*\*\*Sulfur content is assumed to be 15 g/100 ft<sup>3</sup>

\*\*\*\*The VOC value given is TOC. The methane emission factor is 0.2 lb/kgal.

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

Emission Factors are from AP 42, Chapter 1.5, Tables 1.5-1, SCC #1-03-010-02.

Potential Throughput (1,000 gal/yr) = [Heat Input Capacity (MMBtu/hr)] \* [8,760 hours/year] \* [1,000 gal/91.5 MMBtu]

Emission (tons/yr) = Throughput (1,000 gal/yr) x Emission Factor (lb/1,000 gal)/2,000 lb/ton

Greenhouse Gases (GHGs)	Greenhouse Gas (GHG)		
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O
Emission Factor in lb/1,000 gal	12,500	0.2	0.9
Potential Emission in tons/yr	281	4.5E-03	0.02
Summed Potential Emissions in tons/yr	12,501		
CO <sub>2</sub> e Total in tons/yr	12,773		

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 SO<sub>2</sub> = Sulfur Dioxide  
 NO<sub>x</sub> = Nitrous Oxides  
 VOC = Volatile Organic Compounds  
 CO = Carbon Monoxide  
 DCB = Dichlorobenzene  
 Pb = Lead

Cd = Cadmium  
 CO<sub>2</sub> = Carbon Dioxide  
 CH<sub>4</sub> = Methane  
 N<sub>2</sub>O = Nitrous Oxide  
 CO<sub>2</sub>e = CO<sub>2</sub> equivalent emissions  
 Cr = Chromium  
 Mn = Manganese  
 Ni = Nickel

**Methodology**

Emission Factors are from AP 42, Chapter 1.5, Tables 1.5-1, SCC #1-03-010-02.

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

Emission (tons/yr) = Throughput (1,000 gal/yr) x Emission Factor (lb/1,000 gal)/2,000 lb/ton

CO<sub>2</sub>e (tons/yr) = CO<sub>2</sub> Potential Emission ton/yr x CO<sub>2</sub> GWP (1) + CH<sub>4</sub> Potential Emission ton/yr x CH<sub>4</sub> GWP (25) + N<sub>2</sub>O Potential Emission ton/yr x N<sub>2</sub>O GWP (298).

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

**Company Name: North Central Pallets, Inc.  
Source Address: 13990 State Road #10, Argos, IN 46501  
Registration Number: R099-34153-00114  
Reviewer: Dominic Williams**

**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)
Semi Truck (entering plant) (one-way trip)	1.0	6.4	6.4	40.0	256.0	1000	0.189	1.2	442.4
Semi Truck (leaving plant) (one-way trip)	1.0	6.4	6.4	17.0	108.8	1000	0.189	1.2	442.4
<b>Totals</b>			<b>12.8</b>		<b>364.8</b>			<b>2.4</b>	<b>884.8</b>

Average Vehicle Weight Per Trip =  $\frac{28.5}{0.19}$  tons/trip  
Average Miles Per Trip =  $\frac{28.5}{0.19}$  miles/trip

Unmitigated Emission Factor, Ef =  $k \cdot [(s/12)^a] \cdot [(W/3)^b]$  (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 =	4.8	4.8	4.8	% = 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 =	28.5	28.5	28.5	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, Eext =  $E \cdot [(365 - P)/365]$  (Equation 2 from AP-42 13.2.2)

Mitigated Emission Factor, Eext =  $E \cdot [(365 - P)/365]$   
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, Ef =	7.11	1.81	0.18	lb/mile
Mitigated Emission Factor, Eext =	4.67	1.19	0.12	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)
Semi Truck (entering plant) (one-way trip)	1.57	0.40	0.04	1.03	0.26	0.03
Semi Truck (leaving plant) (one-way trip)	1.57	0.40	0.04	1.03	0.26	0.03
<b>Totals</b>	<b>3.14</b>	<b>0.80</b>	<b>0.08</b>	<b>2.07</b>	<b>0.53</b>	<b>0.05</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/trip) = 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)  
Controlled PTE (tons/yr) = (Mitigated PTE (tons/yr)) \* (1 - Dust Control Efficiency)

**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: Kelly Baumgartner  
North Central Pallets, Inc.  
PO Box 840  
Plymouth, IN 46563

DATE: May 14, 2014

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

SUBJECT: Final Decision  
Registration  
099 - 34153 - 00114

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:  
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

# Mail Code 61-53

IDEM Staff	LPOGOST 5/14/2014 North Central Pallets Inc 099 - 34153 - 00114 final)		Type of Mail:  <b>CERTIFICATE OF MAILING ONLY</b>	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

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											Remarks
1		Kelly Baumgartner North Central Pallets Inc PO Box 840 Plymouth IN 46563 (Source CAATS) Via confirmed delivery									
2		Marshall County Commissioners 112 West Jefferson Street Plymouth IN 46563 (Local Official)									
3		Argos Town Council 101 S. 1st. St. Argos IN 46501 (Local Official)									
4		Marshall County Health Department 112 W Jefferson Street, Suite 103 Plymouth IN 46563-1764 (Health Department)									
5		LaPaz Town Council PO Box 0820 LaPaz IN 46537 (Local Official)									
6		Ms. Julie Grzesiak 139 N. Michigan St. Argos IN 46501 (Affected Party)									
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