



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

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

TO: Interested Parties / Applicant

DATE: October 18, 2013

RE: Genesis Products, Inc. / 039 - 33189 - 00746

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

Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

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 from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER-AM.dot 6/13/2013



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Michael R. Pence
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Commissioner

Nate Rhoden
Genesis Products, Inc.
2608 Almac Drive
Elkhart, IN 46514

October 18, 2013

Re: Exempt Construction and Operation Status,
E039-33189-00746

Dear Mr. Rhoden:

The application from Genesis Products, Inc., received on May 13, 2013, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following stationary wood cabinet and door manufacturing facility located at 1806 Conant Street, Elkhart, IN 46516 is classified as exempt from air pollution permit requirements:

- (a) Three (3) wood laminators, identified as FL1, HL1, and HL2, approved for construction in 2013, each with a maximum capacity of 600 boards per hour, and exhausting indoors.
- (b) One (1) wood laminator, identified as HML, approved for construction in 2013, with a maximum capacity of 60 boards per hour, and exhausting indoors.
- (c) Two (2) side sanders, identified as FL1 Side Sander 1 and FL1 Side Sander 2, approved for construction in 2013, each with a maximum capacity of 600 boards per hour, and using baghouse D1 and D2 as control, respectively.
- (d) Four (4) side sanders, identified as HL1 Side Sander 1 through HL1 Side Sander 4, approved for construction in 2013, each with a maximum capacity of 60 boards per hour, and using baghouse D3 as control.
- (e) One (1) natural gas-fired building heater, identified as Building Heat, approved for construction in 2013, with a maximum heat input capacity of 0.8 MMBtu per hour, exhausting indoors.
- (f) Paved roads and parking lots.

The following conditions shall be applicable:

1. 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:
 - (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.

2. 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.
3. In order to ensure that each of the side sanders (FL1 Side Sander 1, FL1 Side Sander 2, HL1 Side Sander 1 through HL1 Side Sander 4) is exempt from the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), each of the baghouses shall be in operation and control particulate emissions from the side sanders at all times that each of the side sanders is in operation.

This exemption is the first air approval issued to this source.

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

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. If you have any questions on this matter, please contact Dominic Williams, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, at 317-234-6555 or at 1-800-451-6027 (ext 4-6555).

Sincerely,



Nathan C. Bell, Section Chief
Permits Branch
Office of Air Quality

NB/DW

cc: File - Elkhart County
Elkhart County Health Department
Compliance and Enforcement Branch
IDEM Northern Regional Office

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

Technical Support Document (TSD) for an Exemption

Source Description and Location
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Source Name:	Genesis Products, Inc.
Source Location:	1806 Conant Street, Elkhart, IN 46516
County:	Elkhart
SIC Code:	2434 (Wood Kitchen Cabinets)
Exemption No.:	E039-33189-00746
Permit Reviewer:	Dominic Williams

On May 13, 2013, the Office of Air Quality (OAQ) received an application from Genesis Products, Inc. related to the construction and operation of a new stationary wood cabinet and door manufacturing facility.

Source Definition

Genesis Products, Inc.'s Conant Street plant, site number 039-00746, is approximately 2.5 miles from Genesis Products, Inc.'s Plants 1, 2 and 5. Genesis plants 1, 2 and 5 were previously permitted together as one source in registration 039-31086-00656 and will be referred to collectively as "Plant B". All three plants do millwork and some of the intermediate products from Plant B will go to the Conant Street plant. IDEM, OAQ has examined whether these plants are part of the same source. The term "source" is defined at 326 IAC 1-2-73. In order for two to be considered one source, they must meet all three of the following criteria:

- (1) the plants must be under common ownership or common control;
- (2) the plants must have the same two-digit Standard Industrial Classification (SIC) Code or one must serve as a support facility for another; and,
- (3) the plants must be located on contiguous or adjacent properties.

The Conant Street plant and Plant B are owned by Genesis Products, Inc. Therefore the plants are under common ownership and common control, meeting the first part of the source definition.

The SIC Code Manual of 1987 sets out how to determine the proper SIC Code for each type of business. More information about SIC Codes is available at http://www.osha.gov/pls/imis/sic_manual.html on the Internet. The SIC Code is determined by looking at the principal product or activity of each plant. The plants have the same two-digit SIC Code, 24, for the Major Group Lumber and Wood Products, Except Furniture, which includes millwork.

A plant is a support facility to another plant if it dedicates 50% or more of its output to the other plant. Plant B will send some milled wood production to the Conant Street plant. Nothing is sent back to Plant B from the Conant Street plant. The amount of support is less than 34% of the total Plant B output on an annual basis. This amount of output is too small to meet the definition of support facility. However, since the plants have the same two-digit SIC Code the second part of the source definition is met.

The last part of the definition is whether the plants are on the same, contiguous or adjacent properties. The plants are not located on the same or contiguous properties. Therefore IDEM must determine if the plants are located on adjacent properties.

The term "adjacent" is not defined in Indiana's rules. IDEM's NPD Air-005 is guidance for applying the definition of "major source" in 326 IAC 2-1-7(22). Since the definitions of "source" and "major source" are

nearly identical regarding adjacent properties, NPD Air-005 is helpful in applying the definition of “source”. NPD Air-005 adds the following guidance:

- properties that actually abut at any point would satisfy the requirement of contiguous or adjacent property.
- properties that are separated by a public road or public property would satisfy this requirement, absent special circumstances.
- other scenarios would be examined on an individual basis with the focus on the distance between the activities and the relationship between the activities.

The U.S. EPA has a similar view on how to interpret the term “adjacent” when defining a source. Two U.S. EPA letters; the May 21, 1988 letter from U.S. EPA Region 8 to the Utah Division of Air Quality, and the U.S. EPA Region 5 letter dated October 18, 2010 to Scott Huber at Summit Petroleum Corporation, discuss the term “adjacent” as it is used in making major source determinations. These letters are not binding on IDEM but they are persuasive for two reasons. The letters follow the guidance in NPD Air-005 that IDEM will examine both the distance between the sources and their relationship and, secondly, they illustrate a longstanding U.S. EPA analysis used to determine if two sources are “adjacent” going back to the preamble to the 1980 NSR program definition of “major source”. U.S. EPA’s consistent approach is that any evaluation of what is “adjacent” must relate to the guiding principal of a common sense notion of “source”.

All IDEM evaluations of adjacency are done on a case-by-case basis looking at the specific factors for the plants involved. In addition to determining the distance between the plant properties, IDEM asks:

- (1) Are materials routinely transferred between the plants?
- (2) Do managers or other workers frequently shuttle back and forth to be involved actively in the plants?
- (3) Is the production process itself split in any way between the plants?

These questions focus on whether the separate sources are so interrelated that they are functioning as one plant, and whether the distance between them is small enough that it enables them to operate as one plant. U.S. EPA Assistant Administrator Gina McCarthy issued a memorandum on September 22, 2009 that confirmed U.S. EPA’s view that each source determination must be done on a case-by-case basis and stated that after that analysis is completed it may be that physical proximity serves as an overwhelming factor in determining if the plants are adjacent.

The Plant B properties are about 2.5 miles from the Conant Street plant property. There is no dedicated physical connection between the two plants such as a dedicated rail spur, pipeline or private road. The plants do not share production workers, but do have common managers. A percentage of the production process is split between the plants, with less than 34% of Plant B’s production going to the Conant Street plant. These parts are transferred to the plants on a routine basis. The two plant properties are not physically close to each other. Considering all these factors, IDEM, OAQ finds that the plants are not located on adjacent properties and therefore do not meet the third part of the source definition.

The plants do not meet all three elements of the source definition. Therefore, IDEM, OAQ finds that the Conant Street plant is not part of the same source as Genesis Products Inc.’s Plants 1, 2 and 5.

Existing Approvals

There have been no previous approvals issued to this source.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Attainment effective July 19, 2007, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Attainment effective October 18, 2000, for the 1-hour ozone standard for the South Bend-Elkhart area, including Elkhart County, and is a maintenance area for the 1-hour National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour standard was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM _{2.5} .	

- (a) **Ozone Standards**
 Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) **PM_{2.5}**
 Elkhart County has been classified as attainment for PM_{2.5}. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM_{2.5} 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_{2.5} significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct PM_{2.5} and SO₂ emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.
- (c) **Other Criteria Pollutants**
 Elkhart 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 2-1.1-3 (Exemptions) applicability.

Background and Description of Emission Units and Pollution Control Equipment

The Office of Air Quality (OAQ) has reviewed an application, submitted by Genesis Products, Inc. on May 13, 2013, relating to the construction and operation of a new stationary wood cabinet and door manufacturing facility.

The following is a list of the new emission units and pollution control devices:

- (a) Three (3) wood laminators, identified as FL1, HL1, and HL2, approved for construction in 2013, each with a maximum capacity of 600 boards per hour, and exhausting indoors.
- (b) One (1) wood laminator, identified as HML, approved for construction in 2013, with a maximum capacity of 60 boards per hour, and exhausting indoors.

- (c) Two (2) side sanders, identified as FL1 Side Sander 1 and FL1 Side Sander 2, approved for construction in 2013, each with a maximum capacity of 600 boards per hour, and using baghouse D1 and D2 as control, respectively.
- (d) Four (4) side sanders, identified as HL1 Side Sander 1 through HL1 Side Sander 4, approved for construction in 2013, each with a maximum capacity of 60 boards per hour, and using baghouse D3 as control.
- (e) One (1) natural gas-fired building heater, identified as Building Heat, approved for construction in 2013, with a maximum heat input capacity of 0.8 MMBtu per hour, exhausting indoors.
- (f) Paved roads and parking lots.

“Integral Part of the Process” Determination

In October 1993 a Final Order Granting Summary Judgement was signed by Administrative Law Judge ("ALJ") Garrettson resolving an appeal filed by Kimball Hospitality Furniture (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 were 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 emissions for particulate matter from the wood laminator side sanders were calculated after consideration of the controls for purposes of determining permit level) and 326 IAC 6-3-2 (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 wood laminator side sanders were calculated before consideration of the baghouse controls.

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 – Exemption

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

Process/ Emission Unit	Potential To Emit of the Entire Source (tons/year)									
	PM	PM10*	PM2.5*	SO ₂	NOx	VOC	CO	GHGs as CO ₂ e**	Total HAPs	Worst Single HAP
Wood Laminators	0.0	0.0	0.0	0.0	0.0	6.8E-04	0.0	0.0	6.8E-04	6.8E-04 methylene diphenyl diisocyanate (MDI)
Wood Laminators Side Sanders***	1.13	1.13	1.13	0.0	0.0	0.0	0.0	0.0	0.0	-
Natural Gas-Fired Heaters	0.01	0.04	0.03	0.002	0.34	0.02	0.29	415	0.01	6.18E-03 Hexane
Paved Roads and Parking Lots	1.3	0.25	0.06	0.0	0.0	0.0	0.0	0.0	0.0	-
Total PTE of Entire Source	2.4	1.4	1.2	0.002	0.34	0.02	0.29	415	0.01	6.18E-03 Hexane
Exemptions Levels**	< 5	< 5	< 5	< 10	< 10	< 5	< 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 CO₂e 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 of the woodworking operations is after integral woodworking controls.

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of all regulated criteria pollutants are less than the levels listed in 326 IAC 2-1.1-3(e)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3 (Exemptions).
- (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 CO₂ equivalent emissions (CO₂e) 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 (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (326 IAC 12), are not included in the permit, because each of the natural gas fired heaters at this source is not considered a steam generating unit as defined by 40 CFR 60.41c.
- (b) The requirements of the New Source Performance Standard (NSPS) for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry, 40 CFR 60, Subpart DDD (326 IAC 12), are not included in the permit, because this source does not manufacture polypropylene, polyethylene, polystyrene, or poly (ethylene terephthalate) as defined in 40 CFR 60.561. The wood laminators (FL1, HL1, HL2, HML) at this source only apply urethane adhesive

to wood.

- (c) The requirements of the New Source Performance Standard (NSPS) for Flexible Vinyl and Urethane Coating and Printing, 40 CFR 60, Subpart FFF (326 IAC 12), are not included in the permit, because this source does not contain any rotogravure printing lines used to print or coat flexible vinyl or urethane products. The wood laminators (FL1, HL1, HL2, HML) at this source only apply urethane adhesive to wood.
- (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 Halogenated Solvent Cleaning 40 CFR 63, Subpart T (326 IAC 20-6), are not included in the permit, because this operation does not use a degreasing solvent that contains any of the halogenated compounds listed in 40 CFR 63.460(a).
- (f) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Wood Furniture Manufacturing Operations, 40 CFR 63, Subpart JJ (326 IAC 20-14), are not included in the permit, since this source is not a major source of HAPs.
- (g) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Flexible Polyurethane Foam Production 40 CFR 63 Subpart III (326 IAC 20-22) are not included in the permit, because the source does not produce flexible polyurethane or rebond foam, as defined by 63.1292, and this source is not a major source of HAPs, as defined in 40 CFR 63.2. The wood laminators (FL1, HL1, HL2, HML) at this source only apply urethane adhesive to wood.
- (h) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Polyether Polyols Production, 40 CFR 63, Subpart PPP (326 IAC 20-59), because this source does not manufacture polyether polyol and this source is not a major source of HAPs, as defined in 40 CFR 63.2. The wood laminators (FL1, HL1, HL2, HML) at this source only apply urethane adhesive to wood.
- (i) 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 this permit, because this source is not a major source of HAPs as defined in 40 CFR 63.2.
- (j) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Flexible Polyurethane Foam Fabrication Operation, 40 CFR 63, Subpart MMMMM (326 IAC 20-66), are not included in this permit, because this source does not perform fabrication of flexible polyurethane foam as defined by 40 CFR 63.8782 and this source is not a major source of HAPs as defined in 40 CFR 63.2. The wood laminators (FL1, HL1, HL2, HML) at this source only apply urethane adhesive to wood.
- (k) 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 (63.11193 through 63.11237), are not included in the permit, because the source does not contain boilers. This source only contains a building heater.
- (l) 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)

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

State Rule Applicability Determination

- (a) 326 IAC 2-1.1-3 (Exemptions)
Exemption applicability is discussed under the Permit Level Determination – Exemption 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 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.
- (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

- (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 not applicable to the side sanders, since the potential to emit particulate emissions after integral woodworking controls is less than five hundred fifty-one thousandths (0.551) pound per hour.

In order to ensure that each of the side sanders (FL1 Side Sander 1, FL1 Side Sander 2, HL1 Side Sander) is exempt from the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), each of the baghouses shall be in operation and control particulate emissions from the side sanders at all times that each of the side sanders is in operation.

Wood Laminators

- (k) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b)(6), each of the wood laminators (FL1, HL1, HL2, HML) is not subject to the requirements of 326 IAC 6-3, since each utilizes roll coating application of adhesive.
- (l) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
Each of the wood laminators (FL1, HL1, HL2, HML) are each not subject to the requirements of 326 IAC 8-1-6, since each has unlimited VOC potential emissions of less than twenty-five (25) tons per year.
- (m) 326 IAC 8-2-6 (Metal furniture coating operations)
Each of the wood laminators (FL1, HL1, HL2, HML) is not subject to 326 IAC 8-2-6, because each does not coat metal furniture. Each of the wood laminators apply adhesive to wood cabinets.
- (n) 326 IAC 8-2-10 (Flat Wood Panels; Manufacturing Operations)
This rule applies to facilities located in any county, constructed after July 1, 1990, that perform surface finishing of flat wood panels, as defined by 326 IAC 8-2-10(a), and which have actual emissions of greater than fifteen (15) pounds of VOC per day before add-on controls.

Pursuant to 326 IAC 8-2-1(a)(4), the requirements of 326 IAC 8-2-10 are not applicable to the wood laminators (FL1, HL1, HL2, HML), because each wood laminators has unlimited VOC potential emissions less than fifteen (15) pounds of VOC per day before add-on controls, and this source does not perform surface finishing of flat wood panels, as defined by 326 IAC 8-2-10(a).
- (o) 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)
This rule applies to facilities located in any county, constructed after July 1, 1990, that perform surface coating of wood furniture (or wood furniture components), including cabinets (kitchen, bath, and vanity), tables, beds, chairs, sofas (nonupholstered), art objects, and any other coated furnishings made of solid wood, wood composition, or simulated wood material and which have actual emissions of greater than fifteen (15) pounds of VOC per day before add-on controls.

Pursuant to 326 IAC 8-2-1(a)(4), the requirements of 326 IAC 8-2-12 are not applicable to the wood laminators (FL1, HL1, HL2, HML), because each wood laminator has unlimited VOC potential emissions less than fifteen (15) pounds per day before add-on controls.
- (p) 326 IAC 8-11 (Wood Furniture Coatings)
The wood laminators (FL1, HL1, HL2, HML) each are not subject to 326 IAC 8-11 because this source is not located in Lake, Porter, Clark, or Floyd County.

Natural Gas-Fired Heaters

- (q) 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)
The natural gas-fired building heater is not subject to 326 IAC 6-2, since it is not a source of indirect heating.
- (r) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
The natural gas-fired building heater is not subject to the requirements of 326 IAC 6-3, since it is not a "manufacturing process" as defined by 326 IAC 6-3-1.5.
- (s) 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)
Pursuant to 326 IAC 7-1.1-1, the natural gas-fired building heater is not subject to the requirements of 326 IAC 7-1, since it has unlimited sulfur dioxide (SO₂) emissions less than twenty-five (25) tons per year and ten (10) pounds per hour respectively.
- (t) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
The natural gas-fired building heater is not subject to the requirements of 326 IAC 8-1-6, since it has unlimited VOC potential emissions of less than twenty-five (25) tons per year.

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 May 13, 2013.

The construction and operation of this source shall be subject to the conditions of the attached proposed Exemption No. E039-33189-00746. The staff recommends to the Commissioner that this Exemption be approved.

IDEM Contact

- (a) Questions regarding this proposed permit 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

**TSD Appendix A: Emission Calculations
Emissions Summary**

**Company Name: Genesis Products, Inc.
Source Address: 1806 Conant Street, Elkhart, IN 46516
Exemption Number: E039-33189-00746
Reviewer: Dominic Williams**

Unlimited Potential to Emit (PTE) (tons/year) Before Integral Controls*											
Emission Unit/Activity	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs as CO2e	Total HAPs	Highest Single HAP	
Wood Laminators (FL1, HL1, HL2 and HML)	0.0	0.0	0.0	0.0	0.0	6.8E-04	0.0	0.0	6.8E-04	6.83E-04	methylene diphenyl
Wood Laminator Side Sanders	112.6	112.6	112.6	0.0	0.0	0.0	0.0	0.0	0.0	-	-
Natural Gas-Fired Heaters	0.01	0.04	0.03	0.002	0.34	0.02	0.29	415	0.01	6.18E-03	Hexane
Paved Roads (fugitive)	1.3	0.25	0.06	0.0	0.0	0.0	0.0	0.0	0.0	-	-
Totals	113.9	112.9	112.7	2.06E-03	0.34	0.02	0.29	415	0.01	6.18E-03	Hexane

Unlimited Potential to Emit (PTE) (tons/year) After Integral Controls*											
Emission Unit/Activity	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs as CO2e	Total HAPs	Highest Single HAP	
Wood Laminators (FL1, HL1, HL2 and HML)	0.0	0.0	0.0	0.0	0.0	6.8E-04	0.0	0.0	6.8E-04	6.83E-04	methylene diphenyl
Wood Laminator Side Sanders	1.13	1.13	1.13	0.0	0.0	0.0	0.0	0.0	0.0	-	-
Natural Gas-Fired Heaters	0.01	0.04	0.03	0.002	0.34	0.02	0.29	415	0.01	6.18E-03	Hexane
Paved Roads (fugitive)	1.3	0.25	0.06	0.0	0.0	0.0	0.0	0.0	0.0	-	-
Totals	2.4	1.4	1.2	2.06E-03	0.34	0.02	0.29	415	0.01	6.18E-03	Hexane

*In October 1993 a Final Order Granting Summary Judgement was signed by Administrative Law Judge ("ALJ") Garrettson resolving an appeal filed by Kimball Hospitality Furniture (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 were 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 emissions for particulate matter from the wood laminator side sanders were calculated after consideration of the controls for purposes of determining permit level) and 326 IAC 6-3-2 (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 wood laminator side sanders were calculated before consideration of the baghouse controls.

**TSD Appendix A: Emission Calculations
Wood Laminators (FL1, HL1, HL2, HML)
Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAPs)**

Company Name: Genesis Products, Inc.
Source Address: 1806 Conant Street, Elkhart, IN 46516
Exemption Number: E039-33189-00746
Reviewer: Dominic Williams

During the application of urethane adhesives, component A (isocyanate) and component B (polyols) are mixed together and the components react quickly (in approximately 5 seconds) to form urethane, with minimal emission of methylene diphenyl diisocyanate (MDI) (VOC/HAP). As a worst case scenario, the potential to emit VOC/HAP was estimated assuming that each organic compound is spilled and allowed to evaporate at the maximum evaporation rate for one (1) minute before reacting, with surface area equal to the surface area coated each minute.

Potential to Emit Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAPs)

Guidance Document: Risk Management Program Guidance for Offsite Consequence Analysis, EPA 550-B-99-009, April 1999, Appendix D, Section D.2.1, Equation D-1*

Equation D-1*: $QR = 0.284 * U^{0.78} * MW^{2/3} * A * VP_{mdi} / (82.05 * T_{proc})$

where: QR = Evaporation Rate (lbs/minute) VP = Vapor Pressure (mmHg) of organic compound at 25oC (or 77oF)
U = Wind Speed (m/s) in the vicinity of the process T_{proc} = Process Temperature (Kelvin)
MW = Molecular Weight (g/mol) of organic compound 82.05 = Universal Gas Constant (atm cm³/gmol K)
A = Exposed Surface Area (ft²)

Exposed Surface Area

Operation	Surface Coating Material	Maximum Capacity (units/hour)**	Maximum Surface Area per unit (ft ² /unit)**	Maximum Surface Area Coated (ft ² /hour)	Maximum Surface Area Coated (ft ² /minute)
Wood Laminator (FL1)	Urethane Adhesive	600	32	19200	320.0
Wood Laminator (HL1)	Urethane Adhesive	600	32	19200	320.0
Wood Laminator (HL2)	Urethane Adhesive	600	32	19200	320.0
Wood Laminator (HML)	Urethane Adhesive	60	32	1920	32.0

Potential to Emit (PTE) of VOC and HAP

Operation	Surface Coating Material	Organic Compound	U** (m/s)	MW (g/mol)	A (ft ² /minute)	VP (mmHg)	Process Temperature (oF)**	T _{proc} ** (Kelvin)	QR (lb/minute)	QR (lb/hour)	PTE of VOC/HAP (lbs/day)	PTE of VOC/HAP (tons/year)
Wood Laminator (FL1)	Urethane Adhesive	methylene diphenyl diisocyanate (MDI)	0.508	250.26	320.0	1.0E-05	110.0	316.48	8.4E-07	5.0E-05	1.2E-03	2.2E-04
Wood Laminator (HL1)	Urethane Adhesive	methylene diphenyl diisocyanate (MDI)	0.508	250.26	320.0	1.0E-05	110.0	316.48	8.4E-07	5.0E-05	1.2E-03	2.2E-04
Wood Laminator (HL2)	Urethane Adhesive	methylene diphenyl diisocyanate (MDI)	0.508	250.26	320.0	1.0E-05	111.0	317.04	8.4E-07	5.0E-05	1.2E-03	2.2E-04
Wood Laminator (HML)	Urethane Adhesive	methylene diphenyl diisocyanate (MDI)	0.508	250.26	32.0	1.0E-05	110.0	316.48	8.4E-08	5.0E-06	1.2E-04	2.2E-05

Potential to Emit VOC/HAP = 2.6E-06 1.6E-04 3.7E-03 6.8E-04

Methodology

*Evaporation Rate (QR) equation from EPA Guidance Document entitled "Risk Management Program Guidance for Offsite Consequence Analysis", EPA 550-B-99-009, April 1999, Appendix D, Section D.2.

Chapters 1-12: <http://www.epa.gov/emergencies/docs/chem/oca-chps.pdf>

Appendices: <http://www.epa.gov/emergencies/docs/chem/oca-apds.pdf>

**Information provided by source

Methylene diphenyl diisocyanate (MDI) is a VOC and a HAP

Maximum Surface Area Coated (ft²/hour) = [Maximum Capacity (units/hour)] * [Maximum Surface Area per unit (ft²/unit)]

Maximum Surface Area Coated (ft²/minute) = [Maximum Surface Area Coated (ft²/hour)] * [hour/60 minutes]

T_{proc} (Kelvin) = [Process Temperature (oF) - 32oF] * (5/9) + 273.15K

Evaporation Rate (QR) (lb/minute) = 0.284 * U^{0.78} * MW^{2/3} * A * VP_{mdi} / (82.05 * T_{proc})

Evaporation Rate (QR) (lb/hour) = [Evaporation Rate (QR) (lb/minute)] * [60 minutes/hour]

PTE of VOC/HAP (lbs/day) = [Evaporation Rate (QR) (lbs/hour)] * [24 hours/day]

PTE of VOC/HAP (tons/year) = [Evaporation Rate (QR) (lbs/hour)] * [8760 hours/year] * [ton/2000 lbs]

Note: Each of the wood laminators (FL1, HL1, HL2, and HML) do not emit particulate, since each utilizes roll coating application of adhesive with 100% transfer efficiency.

**TSD Appendix A: Emission Calculations
Wood Laminator Side Sanders (for FL1 and HL1)**

**Company Name: Genesis Products, Inc.
Source Address: 1806 Conant Street, Elkhart, IN 46516
Exemption Number: E039-33189-00746
Reviewer: Dominic Williams**

Potential to Emit (PTE) of PM/PM10/PM2.5

Process	Baghouse ID	Pollutants	Design Outlet Grain Loading (grains/acfm)	Flowrate (acfm)	Control Efficiency (%)	Controlled PTE (lb/hr)	Controlled PTE (ton/yr)	Uncontrolled PTE (lb/hr)	Uncontrolled PTE (ton/yr)
Wood Laminator FL1 Side Sander 1	D1	PM/PM10/PM2.5	0.001	5,000	99.0%	0.04	0.19	4.29	18.77
Wood Laminator FL1 Side Sander 2	D2	PM/PM10/PM2.5	0.001	5,000	99.0%	0.04	0.19	4.29	18.77
Wood Laminator HL1 Side Sander 1	D3	PM/PM10/PM2.5	0.001	5,000	99.0%	0.04	0.19	4.29	18.77
Wood Laminator HL1 Side Sander 2	D3	PM/PM10/PM2.5	0.001	5,000	99.0%	0.04	0.19	4.29	18.77
Wood Laminator HL1 Side Sander 3	D3	PM/PM10/PM2.5	0.001	5,000	99.0%	0.04	0.19	4.29	18.77
Wood Laminator HL1 Side Sander 4	D3	PM/PM10/PM2.6	0.001	5,000	99.0%	0.04	0.19	4.29	18.77
Totals						0.26	1.13	25.71	112.63

Methodology

Controlled PTE (lb/hr) = [Design Outlet Grain Loading (grains/acfm)] * [Flowrate (acfm)] * [60 min/hr] * [lb/7000 grains]

Controlled PTE (tpy) = [Controlled PTE (lb/hr)] * [8,760 hours/year] * [ton/2000 lb]

Uncontrolled PTE (lb/hr) = [Controlled PTE (lb/hr)] / [1 - Control Efficiency %]

Uncontrolled PTE (tpy) = [Uncontrolled PTE (lb/hr)] * [8,760 hours/year] * [ton/2000 lb]

In October 1993 a Final Order Granting Summary Judgement was signed by Administrative Law Judge ("ALJ") Garretson resolving an appeal filed by Kimball Hospitality Furniture (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 were 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 emissions for particulate matter from the wood laminator side sanders were calculated after consideration of the controls for purposes of determining permit level) and 326 IAC 6-3-2 (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 wood laminator side sanders were calculated before consideration of the baghouse controls.

**TSD Appendix A: Emission Calculations
Natural Gas Combustion Only
Capacity <100 MMBtu/hr
Heaters**

Company Name: Genesis Products, Inc.
Source Address: 1806 Conant Street, Elkhart, IN 46516
Exemption Number: E039-33189-00746
Reviewer: Dominic Williams

Unit	Maximum Heat Input Capacity (MMBtu/hr)	High Heat Value (MMBtu/MMcf)	Potential Throughput (MMcf/yr)
Building Heat	0.800	1020	6.87
Totals	0.80		6.87

Criteria Pollutants	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMcf	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.007	0.04	0.026	2.1E-03	0.34	0.019	0.29

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined. PM2.5 assumed equal to PM10

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Hazardous Air Pollutants	HAPs - Organics*					HAPs - Metals*				
	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	7.2E-06	4.1E-06	2.6E-04	6.2E-03	1.2E-05	1.7E-06	3.8E-06	4.8E-06	1.3E-06	7.2E-06

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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMcf/yr) = [Maximum Heat Input Capacity (MMBtu/hr)] * [8,760 hours/year] * [MMcf/1,020 MMBtu]

Potential Emissions (tons/yr) = [Potential Throughput (MMcf/yr)] * [Emission Factor (lb/MMcf)] * [ton/2,000 lbs]

Potential to Emit Total HAPs (tons/year) = 6.5E-03

Greenhouse Gases (GHGs)

Greenhouse Gases (GHGs)	Greenhouse Gas (GHG)		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120000	2.3	2.2
Potential Emission in tons/yr	412.24	7.9E-03	7.6E-03
Summed Potential Emissions in tons/yr	412.25		
CO2e Total in tons/yr	414.74		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64

Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.

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

Potential Emissions (tons/yr) = [Potential Throughput (MMcf/yr)] * [Emission Factor (lb/MMcf)] * [ton/2,000 lbs]

CO2e Total (tons/yr) = [CO2 Potential Emissions (ton/yr) * CO2 GWP (1)] + [CH4 Potential Emissions (ton/yr) * CH4 GWP (21)] + [N2O Potential Emissions (ton/yr) * N2O GWP (310)]

Abbreviations

PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
SO2 = Sulfur Dioxide
NOx = Nitrous Oxides
VOC = Volatile Organic Compounds
CO = Carbon Monoxide

DCB = Dichlorobenzene
Pb = Lead
Cd = Cadmium
Cr = Chromium
Mn = Manganese
Ni = Nickel

CO2 = Carbon Dioxide
CH4 = Methane
N2O = Nitrous Oxide
CO2e = CO2 equivalent emissions

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

**Company Name: Genesis Products, Inc.
Source Address: 1806 Conant Street, Elkhart, IN 46516
Exemption Number: E039-33189-00746
Reviewer: Dominic Williams**

Paved Roads at Industrial Site

The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Information (provided by source)

Type of Traffic	Vehicle Type	Maximum number of vehicles per day	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	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)
Passenger Vehicle (entering plant) (one-way trip)	Passenger Vehicle	20.0	1.0	20.0	4.0	80.0	450	0.085	1.7	622.2
Passenger Vehicle (leaving plant) (one-way trip)	Passenger Vehicle	20.0	1.0	20.0	4.0	80.0	450	0.085	1.7	622.2
Shipping/Receiving Truck (entering plant) (one-way trip)	Freight Truck (5 axles)	3.0	3.0	9.0	40.0	360.0	600	0.114	1.0	373.3
Shipping/Receiving Truck (leaving plant) (one-way trip)	Freight Truck (5 axles)	3.0	3.0	9.0	40.0	360.0	600	0.114	1.0	373.3
Total				58.0		880.0			5.5	1990.9

Average Vehicle Weight Per Trip = $\frac{15.2}{0.09}$ tons/trip
Average Miles Per Trip = $\frac{15.2}{0.09}$ miles/trip

Unmitigated Emission Factor, $E_f = [k * (sL)^{0.91} * (W)^{1.02}]$ (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	15.2	15.2	15.2	tons = average vehicle weight (provided by source)
sL =	9.7	9.7	9.7	g/m ² = silt loading value for paved roads at iron and steel production facilities - Table 13.2.1-3)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, $E_{ext} = E * [1 - (p/4N)]$ (Equation 2 from AP-42 13.2.1)

Mitigated Emission Factor, $E_{ext} = E_f * [1 - (p/4N)]$
where p = $\frac{125}{365}$ days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N = 365 days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, $E_f =$	1.393	0.279	0.0684	lb/mile
Mitigated Emission Factor, $E_{ext} =$	1.274	0.255	0.0625	lb/mile

Type of Traffic	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Passenger Vehicle (entering plant) (one-way trip)	Passenger Vehicle	0.43	0.09	0.02	0.40	0.08	0.02
Passenger Vehicle (leaving plant) (one-way trip)	Passenger Vehicle	0.43	0.09	0.02	0.40	0.08	0.02
Shipping/Receiving Truck (entering plant) (one-way trip)	Freight Truck (5 axles)	0.26	0.05	0.01	0.24	0.05	0.01
Shipping/Receiving Truck (leaving plant) (one-way trip)	Freight Truck (5 axles)	0.26	0.05	0.01	0.24	0.05	0.01
Total		1.39	0.28	0.07	1.27	0.25	0.06

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

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

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

TO: Nate Rhoden
Genesis Products, Inc.
2608 Almac Dr
Elkhart, IN 46514

DATE: October 18, 2013

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

SUBJECT: Final Decision
Exemption
039 - 33189 - 00746

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.

Final Applicant Cover letter.dot 6/13/2013

Mail Code 61-53

IDEM Staff	LPOGOST 10/18/2013 Genesis Products, Inc 039 - 33189 - 00746 final)		CERTIFICATE OF MAILING ONLY	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		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Nate Rhoden Genesis Products, Inc 2608 Almac Dr Elkhart IN 46514 (Source CAATS) Via confirmed delivery									
2		Elkhart City Council and Mayors Office 229 South Second Street Elkhart IN 46516 (Local Official)									
3		Elkhart County Health Department 608 Oakland Avenue Elkhart IN 46516 (Health Department)									
4		Elkhart County Board of Commissioners 117 North Second St. Goshen IN 46526 (Local Official)									
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Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See Domestic Mail Manual R900, S913, and S921 for limitations of coverage on inured and COD mail. See International Mail Manual for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
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