



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

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

TO: Interested Parties / Applicant

DATE: June 26, 2012

RE: Conforce USA / 103 - 32022 - 00047

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

## 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 enclosed matter. 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).

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.

Enclosures  
FN-REGIS.dot 1/2/08



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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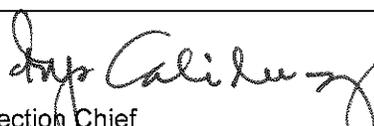
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## REGISTRATION OFFICE OF AIR QUALITY

**Conforce USA**  
**2935 West 100 North**  
**Peru, Indiana, 46970**

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. 103-32022-00047	
Issued by:  Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: June 26, 2012

## 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 pultrusion facility that manufactures flooring for over-the-road transport truck trailers and shipping containers.

Source Address:	2935 West 100 North, Peru, Indiana, 46970
General Source Phone Number:	(765) 473-3061
SIC Code:	2821 (Plastics Materials, Synthetic and Resins, and Nonvulcanizable Elastomers)
County Location:	Miami County
Source Location Status:	Attainment for all 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) prototype pultrusion line, identified as Pultrusion Line 1, constructed in 2011, with a maximum capacity of 2,200 pounds of glass fiber rovings and fabrics per day, using low vapor pressure Methylene diphenyl diisocyanate (MDI), consisting of the following:
  - (1) One (1) resin injection system;
  - (2) Totes for polyurethane compound 2-part resin binder;
  - (3) One (1) die head (curing) area;
  - (4) One (1) cut-off saw, with particulate emissions controlled by dust collector DC, and exhausting to Stack 1;
  
- (b) One (1) commercial pultrusion line, identified as Pultrusion Line 2, constructed in 2011, with a maximum capacity of 5,600 pounds of glass fiber rovings and fabrics per day, using low vapor pressure Methylene diphenyl diisocyanate (MDI), consisting of the following:
  - (1) One (1) resin injection system;
  - (2) Totes for polyurethane compound 2-part resin binder;
  - (3) One (1) die head (curing) area;
  - (4) One (1) cut-off saw, with particulate emissions controlled by dust collector DC, and exhausting to Stack 1;
  
- (c) One (1) commercial pultrusion line, identified as Pultrusion Line 3, constructed in 2011, with a maximum capacity of 5,600 pounds of glass fiber rovings and fabrics per day, using low vapor pressure Methylene diphenyl diisocyanate (MDI), consisting of the following:

- (1) One (1) resin injection system;
  - (2) Totes for polyurethane compound 2-part resin binder;
  - (3) One (1) die head (curing) area;
  - (4) One (1) cut-off saw, with particulate emissions controlled by dust collector DC, and exhausting to Stack 1;
- (d) One (1) commercial pultrusion line, identified as Pultrusion Line 4, approved for construction in 2012, with a maximum capacity of 5,600 pounds of glass fiber rovings and fabrics per day, using low vapor pressure Methylene diphenyl diisocyanate (MDI), consisting of the following:
- (1) One (1) resin injection system;
  - (2) Totes for polyurethane compound 2-part resin binder;
  - (3) One (1) die head (curing) area;
  - (4) One (1) cut-off saw, with particulate emissions controlled by dust collector DC, and exhausting to Stack 1;
- (e) One (1) commercial pultrusion line, identified as Pultrusion Line 5, approved for construction in 2012, with a maximum capacity of 5,600 pounds of glass fiber rovings and fabrics per day, using low vapor pressure Methylene diphenyl diisocyanate (MDI), consisting of the following:
- (1) One (1) resin injection system;
  - (2) Totes for polyurethane compound 2-part resin binder;
  - (3) One (1) die head (curing) area;
  - (4) One (1) cut-off saw, with particulate emissions controlled by dust collector DC, and exhausting to Stack 1;
- (f) One (1) commercial pultrusion line, identified as Pultrusion Line 6, approved for construction in 2012, with a maximum capacity of 5,600 pounds of glass fiber rovings and fabrics per day, consisting of the following:
- (1) One (1) resin injection system;
  - (2) Totes for polyurethane compound 2-part resin binder;
  - (3) One (1) die head (curing) area;
  - (4) One (1) cut-off saw, with particulate emissions controlled by dust collector DC, and exhausting to Stack 1;
- (g) One (1) commercial pultrusion line, identified as Pultrusion Line 7, approved for construction in 2012, with a maximum capacity of 5,600 pounds of glass fiber rovings and fabrics per day, using low vapor pressure Methylene diphenyl diisocyanate (MDI), consisting of the following:
- (1) One (1) resin injection system;

- (2) Totes for polyurethane compound 2-part resin binder;
  - (3) One (1) die head (curing) area;
  - (4) One (1) cut-off saw, with particulate emissions controlled by dust collector DC, and exhausting to Stack 1;
- (h) Natural gas-fired combustion radiant heaters and one (1) outdoor air make-up unit, using a maximum of 0.305 MMCF per year of natural gas;

## 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. 103-32022-00047 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]**

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:

- (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]**

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)]:

- (a) One (1) prototype pultrusion line, identified as Pultrusion Line 1, constructed in 2011, with a maximum capacity of 2,200 pounds of glass fiber rovings and fabrics per day, using low vapor pressure Methylene diphenyl diisocyanate (MDI), consisting of the following:
  - (1) One (1) resin injection system;
  - (2) Totes for polyurethane compound 2-part resin binder;
  - (3) One (1) die head (curing) area;
  - (4) One (1) cut-off saw, with particulate emissions controlled by dust collector DC, and exhausting to Stack 1;
- (b) One (1) commercial pultrusion line, identified as Pultrusion Line 2, constructed in 2011, with a maximum capacity of 5,600 pounds of glass fiber rovings and fabrics per day, using low vapor pressure Methylene diphenyl diisocyanate (MDI), consisting of the following:
  - (1) One (1) resin injection system;
  - (2) Totes for polyurethane compound 2-part resin binder;
  - (3) One (1) die head (curing) area;
  - (4) One (1) cut-off saw, with particulate emissions controlled by dust collector DC, and exhausting to Stack 1;
- (c) One (1) commercial pultrusion line, identified as Pultrusion Line 3, constructed in 2011, with a maximum capacity of 5,600 pounds of glass fiber rovings and fabrics per day, using low vapor pressure Methylene diphenyl diisocyanate (MDI), consisting of the following:
  - (1) One (1) resin injection system;
  - (2) Totes for polyurethane compound 2-part resin binder;
  - (3) One (1) die head (curing) area;
  - (4) One (1) cut-off saw, with particulate emissions controlled by dust collector DC, and exhausting to Stack 1;
- (d) One (1) commercial pultrusion line, identified as Pultrusion Line 4, approved for construction in 2012, with a maximum capacity of 5,600 pounds of glass fiber rovings and fabrics per day, using low vapor pressure Methylene diphenyl diisocyanate (MDI), consisting of the following:
  - (1) One (1) resin injection system;
  - (2) Totes for polyurethane compound 2-part resin binder;
  - (3) One (1) die head (curing) area;
  - (4) One (1) cut-off saw, with particulate emissions controlled by dust collector DC, and exhausting to Stack 1;

- (e) One (1) commercial pultrusion line, identified as Pultrusion Line 5, approved for construction in 2012, with a maximum capacity of 5,600 pounds of glass fiber rovings and fabrics per day, using low vapor pressure Methylene diphenyl diisocyanate (MDI), consisting of the following:
  - (1) One (1) resin injection system;
  - (2) Totes for polyurethane compound 2-part resin binder;
  - (3) One (1) die head (curing) area;
  - (4) One (1) cut-off saw, with particulate emissions controlled by dust collector DC, and exhausting to Stack 1;
- (f) One (1) commercial pultrusion line, identified as Pultrusion Line 6, approved for construction in 2012, with a maximum capacity of 5,600 pounds of glass fiber rovings and fabrics per day, using low vapor pressure Methylene diphenyl diisocyanate (MDI), consisting of the following:
  - (1) One (1) resin injection system;
  - (2) Totes for polyurethane compound 2-part resin binder;
  - (3) One (1) die head (curing) area;
  - (4) One (1) cut-off saw, with particulate emissions controlled by dust collector DC, and exhausting to Stack 1;
- (g) One (1) commercial pultrusion line, identified as Pultrusion Line 7, approved for construction in 2012, with a maximum capacity of 5,600 pounds of glass fiber rovings and fabrics per day, using low vapor pressure Methylene diphenyl diisocyanate (MDI), consisting of the following:
  - (1) One (1) resin injection system;
  - (2) Totes for polyurethane compound 2-part resin binder;
  - (3) One (1) die head (curing) area;
  - (4) One (1) cut-off saw, with particulate emissions controlled by dust collector DC, and exhausting to Stack 1;

(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 [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the panel cutting operations associated with the seven (7) pultrusion lines shall not exceed 0.045 pounds per hour when operating at a process weight rate of 2.35 pounds per hour. The pound per hour limitation was calculated with the following equation:

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

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

**Compliance Determination Requirements [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]**

**D.1.2 Particulate Control**

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In order to comply with Condition D.1.1 the dust collector, identified as DC, shall be in operation and control emissions at all times the panel cutting in any of the seven (7) pultrusion lines is in operation. The Permittee shall operate the control devices in accordance with manufacturer(s) specifications.

**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>	Conforce USA
<b>Address:</b>	2935 West 100 North
<b>City:</b>	Peru, Indiana, 46970
<b>Phone Number:</b>	(765) 473-3061
<b>Registration No.:</b>	103-32022-00047

I hereby certify that Conforce USA is:

- still in operation.
- no longer in operation.
- in compliance with the requirements of Registration No. 103-32022-00047.
- not in compliance with the requirements of Registration No. 103-32022-00047.

I hereby certify that Conforce USA is:

<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>
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<b>Source Name:</b>	<b>Conforce USA</b>
<b>Source Location:</b>	<b>2935 West 100 North, Peru, Indiana, 46970</b>
<b>County:</b>	<b>Miami</b>
<b>SIC Code:</b>	<b>2821 (Plastics Materials, Synthetic and Resins, and Nonvulcanizable Elastomers)</b>
<b>Registration No.:</b>	<b>103-32022-00047</b>
<b>Permit Reviewer:</b>	<b>Sarah Street</b>

On June 15, 2012, the Office of Air Quality (OAQ) received an application from Conforce USA related to the construction and operation of new emission units and the continued operation of an existing stationary pultrusion facility that manufactures flooring for over-the-road transport truck trailers and shipping containers.

<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 Miami 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 June 15, 2004, for the 8-hour ozone standard. <sup>1</sup>
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Not designated.
<sup>1</sup> Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM <sub>2.5</sub> .	

- (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. Miami 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<sub>2.5</sub>**  
 Miami 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> and SO<sub>2</sub>

emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

- (c) Other Criteria Pollutants  
Miami 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 Conforce USA on June 15, 2012, relating to the construction of new pultrusion lines at an existing plant. The source has previously been operating under Exemption thresholds, and there have been no previous permit approvals. Due to the construction of the new pultrusion lines at the source, Conforce USA has requested a Registration permit.

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

- (a) One (1) prototype pultrusion line, identified as Pultrusion Line 1, constructed in 2011, with a maximum capacity of 2,200 pounds of glass fiber rovings and fabrics per day, using low vapor pressure Methylene diphenyl diisocyanate (MDI), consisting of the following:
- (1) One (1) resin injection system;
  - (2) Totes for polyurethane compound 2-part resin binder;
  - (3) One (1) die head (curing) area;
  - (4) One (1) cut-off saw, with particulate emissions controlled by dust collector DC, and exhausting to Stack 1;
- Note: The dust collector DC is common to the cut-off saws at the end of each of the pultrusion lines.
- (b) One (1) commercial pultrusion line, identified as Pultrusion Line 2, constructed in 2011, with a maximum capacity of 5,600 pounds of glass fiber rovings and fabrics per day, using low vapor pressure Methylene diphenyl diisocyanate (MDI), consisting of the following:
- (1) One (1) resin injection system;
  - (2) Totes for polyurethane compound 2-part resin binder;
  - (3) One (1) die head (curing) area;
  - (4) One (1) cut-off saw, with particulate emissions controlled by dust collector DC, and exhausting to Stack 1;
- (c) One (1) commercial pultrusion line, identified as Pultrusion Line 3, constructed in 2011, with a maximum capacity of 5,600 pounds of glass fiber rovings and fabrics per day, using low vapor pressure Methylene diphenyl diisocyanate (MDI), consisting of the following:

- (1) One (1) resin injection system;
  - (2) Totes for polyurethane compound 2-part resin binder;
  - (3) One (1) die head (curing) area;
  - (4) One (1) cut-off saw, with particulate emissions controlled by dust collector DC, and exhausting to Stack 1;
- (d) Natural gas-fired combustion radiant heaters and one (1) outdoor air make-up unit, using a maximum of 0.305 MMCF per year of natural gas;

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

- (a) One (1) commercial pultrusion line, identified as Pultrusion Line 4, approved for construction in 2012, with a maximum capacity of 5,600 pounds of glass fiber rovings and fabrics per day, using low vapor pressure Methylene diphenyl diisocyanate (MDI), consisting of the following:
- (1) One (1) resin injection system;
  - (2) Totes for polyurethane compound 2-part resin binder;
  - (3) One (1) die head (curing) area;
  - (4) One (1) cut-off saw, with particulate emissions controlled by dust collector DC, and exhausting to Stack 1;
- (b) One (1) commercial pultrusion line, identified as Pultrusion Line 5, approved for construction in 2012, with a maximum capacity of 5,600 pounds of glass fiber rovings and fabrics per day, using low vapor pressure Methylene diphenyl diisocyanate (MDI), consisting of the following:
- (1) One (1) resin injection system;
  - (2) Totes for polyurethane compound 2-part resin binder;
  - (3) One (1) die head (curing) area;
  - (4) One (1) cut-off saw, with particulate emissions controlled by dust collector DC, and exhausting to Stack 1;
- (c) One (1) commercial pultrusion line, identified as Pultrusion Line 6, approved for construction in 2012, with a maximum capacity of 5,600 pounds of glass fiber rovings and fabrics per day, using low vapor pressure Methylene diphenyl diisocyanate (MDI), consisting of the following:
- (1) One (1) resin injection system;
  - (2) Totes for polyurethane compound 2-part resin binder;
  - (3) One (1) die head (curing) area;
  - (4) One (1) cut-off saw, with particulate emissions controlled by dust collector DC, and exhausting to Stack 1;
- (d) One (1) commercial pultrusion line, identified as Pultrusion Line 7, approved for construction in 2012, with a maximum capacity of 5,600 pounds of glass fiber rovings and fabrics per day, using low vapor pressure Methylene diphenyl diisocyanate (MDI), consisting of the following:

- (1) One (1) resin injection system;
- (2) Totes for polyurethane compound 2-part resin binder;
- (3) One (1) die head (curing) area;
- (4) One (1) cut-off saw, with particulate emissions controlled by dust collector DC, and exhausting to Stack 1;

Note: MDI (Methylene diphenyl diisocyanate) emissions come from the totes for resin binder, and the die head (curing) area for each pultrusion line. There are no emissions from the resin injection systems. MDI comes from the A-side of the two-part Baydur product. The B-side does not contain MDI.

All other raw materials used do not have a VOC or HAP component, including glass fiber rovings and fabrics, internal mold release agent, liquid pigment paste, and acetone for cleanup.

No adhesives or other chemicals/solvents are used.

Note: This source does not operate any chemical manufacturing process units.

<b>Enforcement Issues</b>
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There are no pending enforcement actions related to this source.

<b>Emission Calculations</b>
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See Appendix A of this TSD for detailed emission calculations.

Emission Factors for MDI and VOCs from the Pultrusion lines were calculated using alternate methods, using vapor pressure estimates in accordance with a document entitled "MDI/Polymeric MDI Emissions Reporting Guidelines for the Polyurethane Industry" prepared by the Alliance for the Polyurethane Industry. The EPA AP-42 has no emission factor data available for MDI. These emission estimation methods for MDI have been reviewed and approved by IDEM, OAQ. MDI has a low vapor pressure, and it is conservatively assumed that the total VOC emissions from the pultrusion lines equals the MDI emissions. Based on this, testing will not be required.

<b>Permit Level Determination – Registration</b>
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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 <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHGs as CO <sub>2</sub> e**	Total HAPs	Worst Single HAP
Pultrusion	-	-	-	-	-	0.02	-	-	0.02	0.02 MDI
Cutting	15.49	15.49	15.49	-	-	-	-	-	-	-
Combustion	0.00	0.00	0.00	0.00	0.02	0.00	0.01	18.39	negl.	negl.
<b>Total PTE of Entire Source</b>	<b>15.49</b>	<b>15.49</b>	<b>15.49</b>	<b>0.00</b>	<b>0.02</b>	<b>0.02</b>	<b>0.01</b>	<b>18.39</b>	<b>0.02</b>	<b>0.02 MDI</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), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".  
 \*\*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.

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of PM, PM10 and PM2.5 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) Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 (40 CFR 60, Subpart Kb)  
 The resin binder totes are not subject to the requirements of this subpart, because the tanks are less than 75 cubic meters. Therefore, the requirements of 40 CFR 60, Subpart Kb are not included in the permit.
- (b) Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry (40 CFR 60, Subpart DDD)  
 This source processes finished polymers/resins, but does not manufacture polypropylene, polyethylene, polystyrene, or poly (ethylene terephthalate) as defined in 40 CFR 60.561. Therefore, the requirements of 40 CFR 60, Subpart DDD, Standards of Performance for VOC Emissions from the Polymer Manufacturing Industry are not included in the permit for this source.

- (c) 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)

- (d) National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins (40 CFR 63, Subpart JJJ)  
This source does not process or manufacture a thermoplastic product as defined by 40 CFR 63.1312, and is not a major source of HAPs. Therefore, the requirements of 40 CFR 63, Subpart JJJ, National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins are not included in the permit for this source.
- (e) National Emission Standard for Hazardous Air Pollutants: Reinforced Plastic Composites Production (40 CFR 63, Subpart WWWW (4W))  
The source uses thermoset resins that do not contain styrene, and this source is not a major source of HAPs. Therefore, the requirements of 40 CFR 63, Subpart WWWW (4W), National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, are not included in the permit for this source.
- (f) National Emission Standard for Hazardous Air Pollutants: Chemical Manufacturing Area Sources (40 CFR 63, Subpart VVVVVV (6V))  
This source does not operate a chemical manufacturing process unit (CMPU) that uses as feedstocks, generates as byproducts, or produces as products any of the hazardous air pollutants (HAP) listed in Table 1 to this subpart (Table 1 HAP). Therefore, the requirements of 40 CFR 63, Subpart VVVVVV (6V), National Emission Standards for Hazardous Air Pollutants: Chemical Manufacturing Area Sources, are not included in the permit for this source.
- (g) 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 permit.

Compliance Assurance Monitoring (CAM)

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

<b>State Rule Applicability Determination</b>
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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 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.

#### Pultrusion Lines

- (g) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)  
Each pultrusion line (Lines 1 through 7) is not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from each pultrusion line is less than twenty-five (25) tons per year.
- (h) 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)  
The resin binder totes are not subject to the requirements of 326 IAC 8-9, because this source is not located in Clark, Floyd, Lake, or Porter County.
- (i) There are no 326 IAC 8 (VOC) rules applicable to the pultrusion lines.

#### Cut-Off Saws

- (j) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)  
Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the panel cutting operations associated with the seven (7) pultrusion lines shall not exceed 0.045 pounds per hour when operating at a process weight rate of 2.35 pounds per hour (see Appendix A - Emissions Calculations). The pound per hour limitation was calculated with the following equation:

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

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

The baghouse, identified as DC, shall be in operation at all times the panel cutting in any of the seven (7) pultrusion lines is in operation, in order to comply with this limit.

### Combustion Units

- (k) 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)  
The natural gas-fired radiant heaters and air make-up unit are not subject to 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating), because, pursuant to 326 IAC 1-2-19, these emission units do not meet the definition of an indirect heating unit.
- (l) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)  
The natural gas-fired radiant heaters and air make-up unit are exempt from the requirements of 326 IAC 6-3, because, pursuant to 326 IAC 1-2-59, liquid and gaseous fuels and combustion air are not considered as part of the process weight.

<b>Conclusion and Recommendation</b>
--------------------------------------

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 June 15, 2012.

The construction and operation of this source shall be subject to the conditions of the attached proposed Registration No. 103-32022-0047. The staff recommends to the Commissioner that this Registration be approved.

<b>IDEM Contact</b>
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- (a) Questions regarding this proposed permit can be directed to Sarah Street 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) 232-8427 or toll free at 1-800-451-6027 extension 2-8427.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.in.gov/idem](http://www.in.gov/idem)

**Appendix A: Emission Calculations  
Source-Wide Summary**

**Company Name:** Conforce USA  
**Address City IN Zip:** 2935 West 100 North, Peru, Indiana, 46970  
**Permit Number:** R103-32022-00047  
**Pft ID:** 103-00047  
**Reviewer:** Sarah Street  
**Date:** 6/19/2012

Emission Units	Unlimited Potential to Emit (tons/yr)										
	PM	PM10*	PM2.5	SO2	NOx	VOC	CO	GHGs as CO2e	Worst Single HAP	Total HAP	
Pultrusion Lines	-	-	-	-	-	0.02	-	-	0.020	MDI	0.02
Cutting	15.49	15.49	15.49	-	-	-	-	-	-	-	-
Combustion	0.00	0.00	0.00	0.00	0.02	0.00	0.01	18.39	negl.	negl.	
<b>Total PTE</b>	<b>15.49</b>	<b>15.49</b>	<b>15.49</b>	<b>0.00</b>	<b>0.02</b>	<b>0.02</b>	<b>0.01</b>	<b>18.39</b>	<b>0.02</b>	<b>MDI</b>	<b>0.02</b>

**Appendix A: Emission Calculations  
MDI Emissions from Pultrusion Lines**

**Company Name: Conforce USA  
Address City IN Zip: 2935 West 100 North, Peru, Indiana, 46970  
Permit Number: R103-32022-00047  
Pit ID: 103-00047  
Reviewer: Sarah Street  
Date: 6/19/2012**

Emission Unit ID	Maximum Amount of Resin Used (lbs/day)	MDI Emission Factor (Weight %)	MDI Emissions (lbs/hr)	MDI Emissions (lbs/day)	MDI Emissions (tons/yr)
Pultrusion Line 1	2,200	0.0003%	0.000	0.007	0.001
Pultrusion Line 2	5,600	0.0003%	0.001	0.017	0.003
Pultrusion Line 3	5,600	0.0003%	0.001	0.017	0.003
Pultrusion Line 4	5,600	0.0003%	0.001	0.017	0.003
Pultrusion Line 5	5,600	0.0003%	0.001	0.017	0.003
Pultrusion Line 6	5,600	0.0003%	0.001	0.017	0.003
Pultrusion Line 7	5,600	0.0003%	0.001	0.017	0.003
<b>Total</b>					<b>0.020</b>

Notes:

The above emissions calculations have been submitted by the source and approved by IDEM, OAQ  
Maximum Amount of Resin Used is supplied by the facility and takes into account the total amount of the A and B components of the resin combined.

Potential emissions of MDI were estimate in accordance with a document entitled "MDI/Polymeric MDI Emissions Reporting Guidelines for the Polyurethane Industry" prepared by the Alliance for the Polyurethane Industry.  
The emission factor takes into account all seven pultrusion lines and corresponding emission from MDI totes and from the die head area on each line. There are no emissions from the resin injection systems.

The MSDS sheets supplied by the source confirm the product being used is MDI, which has a very low vapor pressure. Since this is the only VOC, it is conservatively assumed that all MDI emissions are equal to VOC emissions  
See the following document for MDI Emission Factor estimation.

Methodology:

Potential MDI Emissions (lbs/hr) = Amount of Resin Used (lb/day) x MDI Emission Factor (Weight %) x (1 day/24 hrs)  
Potential MDI Emissions (lbs/day) = Potential MDI Emissions (lbs/hr) x (24 hrs/day)  
Potential MDI Emissions (tons/yr) = Potential MDI Emissions (lbs/hr) x (8760 hrs/yr) x (1 ton/2000 lbs)

**Appendix A: Emission Calculations  
Panel Cutting**

**Company Name: Conforce USA**  
**Address City IN Zip: 2935 West 100 North, Peru, Indiana, 46970**  
**Permit Number: R103-32022-00047**  
**Plt ID: 103-00047**  
**Reviewer: Sarah Street**  
**Date: 6/19/2012**

The following emissions calculations have been submitted by the source and approved by IDEM, OAC

Emission Units	Control Device	Maximum Process Throughput Rate (lbs/hr)	826 IAC 6-3-2 Allowable PM Emission Rate (lbs/hr)	Control Efficiency (%)	Grain Loading per Actual Cubic foot of Outlet Air (grains/cub. ft.)	Gas or Air Flow Rate (acfm.)	PM Emission Rate before Controls (lbs/hr)	PM Emission Rate before Controls (tons/yr)	PM Emission Rate after Controls (lbs/hr)	PM Emission Rate after Controls (tons/yr)
Fiber reinforced composite panel cut-off sawing- Pultrusion Lines 1 through 7 combined	DC	2.35	0.045	99.00%	0.003	1,375	3.54	15.49	0.035	0.15
<b>Total</b>							3.54	<b>15.49</b>	0.035	<b>0.15</b>

Notes:

Grain loading value estimated based upon conversations with dust collector manufacturer and similar types of higher efficiency units permitted by IDEM for similar cutting operations.  
 Entire cutting operation complies with the state allowable PM emission rate as long as the dust collection system is operated and maintained according to manufacturer specifications and industry standards.  
 Maximum Process Throughput Rate is based upon the physical properties of the saw and the amount of panel material that is removed during the actual cutting process when the panels are cut to length.  
 There is also one small automatic drilling machine that is connected to the same central dust collector as the saws. The amount of material drilled is trivial compared to the cutting operation and is assumed to be negligible.  
 Assume all PM is between the size range of 24 and 100 microns due to the use of 24 micron diameter glass fiber filaments as part of the panel manufacturing process.

Methodology:

326 IAC 6-3-2 Allowable PM Emission Rate for Processes <30 tons/hr = 4.1 x Process Weight (tons/hr) ^ 0.67  
 Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) (cub. ft./min.) (60 min/hr) (lb/7000 grains)  
 Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Emission Rate in lbs/hr (before controls) = After Control Emission Rate (lbs/hr)/(1-control efficiency)  
 Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Maximum Process Throughput Rate Determination:

Volume per cut = 1.0 cub. ft.  
 Weight per cut = 0.076 lbs  
 # of cuts per hr per pultrusion line = 5.2  
 Expected effective utilization rate of lines = 85%

Maximum Process Throughput Rate (lbs/hr) = (0.076 lbs/cut) x (5.2 cuts/hr/machine) x 7 lines x 85%

**Appendix A: Emissions Calculations**

**Natural Gas Combustion Only**

**MM BTU/HR <100**

**Company Name: Conforce USA**  
**Address City IN Zip: 2935 West 100 North, Peru, Indiana, 46970**  
**Permit Number: R103-32022-00047**  
**Plt ID: 103-00047**  
**Reviewer: Sarah Street**  
**Date: 6/19/2012**

Heat Input Capacity  
MMBtu/hr

HHV  
mmBtu  
mmscf

Potential Throughput  
MMCF/yr

-

1020

0.30

Max. Natural Gas usage      3,200      therms/year  
 Max. Natural Gas usage      0.305      mmscf/yr

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.000	0.001	0.001	0.000	0.015	0.001	0.013

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

PM2.5 emission factor is filterable and condensable PM2.5 combined.

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

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

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

See following page for HAPs emissions calculations.

**Appendix A: Emissions Calculations**

**Natural Gas Combustion Only**

**MM BTU/HR <100**

**HAPs Emissions**

**Company Name: Conforce USA**

**Address City IN Zip: 2935 West 100 North, Peru, Indiana, 46970**

**Permit Number: R103-32022-00047**

**Plt ID: 103-00047**

**Reviewer: Sarah Street**

**Date: 6/19/2012**

	HAPs - Organics				
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	3.199E-07	1.828E-07	1.142E-05	2.742E-04	5.179E-07

	HAPs - Metals				
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	7.616E-08	1.676E-07	2.132E-07	5.788E-08	3.199E-07

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

See following page for Greenhouse Gas calculations.

**Appendix A: Emissions Calculations  
 Natural Gas Combustion Only  
 MM BTU/HR <100  
 Greenhouse Gas Emissions**

**Company Name:** Conforce USA  
**Address City IN Zip:** 2935 West 100 North, Peru, Indiana, 46970  
**Permit Number:** R103-32022-00047  
**Plt ID:** 103-00047  
**Reviewer:** Sarah Street  
**Date:** 6/19/2012

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	18	0.0	0.0
Summed Potential Emissions in tons/yr	18		
CO2e Total in tons/yr	18		

**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.  
 Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.  
 $Emission (tons/yr) = Throughput (MMCF/yr) \times Emission\ Factor (lb/MMCF) / 2,000\ lb/ton$   
 $CO2e (tons/yr) = CO2\ Potential\ Emission\ ton/yr \times CO2\ GWP (1) + CH4\ Potential\ Emission\ ton/yr \times CH4\ GWP (21) + N2O\ Potential\ Emission\ ton/yr \times N2O\ GWP (310).$

Pultrusion emission estimate

A:B ratio (wt:wt)

7 lines

115 to

100

5600 lb resin /day / line

39200 lb resin/day

20967.44 lb MR/day

2036 gal MR/day

	Totes	Day tanks	Die head	Total
	275 gallons 30 day supply	55 gallons	1000 ACFM 20 ppbv 40 C	
MDI Emissions (TPY)	5.62E-06	7.62064E-05	0.022369	2.25E-02

Notes:

MDI Emissions are based upon the estimated MDI emissions from tote tanks, day storage tanks, and the die head area on each pultrusion line. These emission spreadsheets have been provided by Mr. Doug Krings, Senior Technical Specialist at AECOM, on behalf of Bayer. The values in red have been modified to reflect the actual operating conditions at Conforce.

These emission estimates are conservative values since only six of the seven planned pultrusion lines at Conforce will be full-scale commercial production lines (the other is a much lower capacity developmental line). Also, Conforce has eliminated the 55-gallon day storage tanks from the facility (and instead feeds resin material directly from closed totes).

Methodology:

Total MDI Emissions (tons/yr) = MDI Emissions from totes + MDI Emissions from Day Tanks + MDI Emissions from Die Head = 2.25E-02 tons/yr

Total MDI Emissions (lbs/yr) = (2.25E-02 tons/yr) x 2000 lbs/ton = 45 lbs/yr

Total Maximum Daily Resin Usage (lbs/day) = (5,600 lbs resin/day/line) x 7 lines = 39,200 lbs resin/day

Total Maximum Annual Resin Usage (lbs/yr) = (39,200 lbs resin/day) x 365 days/yr = 14,308,000 lbs/yr

MDI Emission Factor Development (weight %) = (Total MDI Emissions (lbs/yr))/(Total Maximum Annual Resin Usage (lbs/yr)) x 100 = (45 lbs/yr)/(14,308,000 lbs/yr) x 100  
= (45 lbs/yr)/(14,308,000 lbs/yr) x 100 = 0.0003%

Totes - breathing losses

Total volume	300 gallon	1.1355 m <sup>3</sup>
Product volume	275 gallon	1.040875 m <sup>3</sup>
"empty" volume	10 gallon	0.03785 m <sup>3</sup>
Storage temp	50 C	
Daytime high	62 F	289.8 K
Nighttime low	42 F	278.7 K

(Indianapolis annual average)

(Indianapolis annual average)

<b>Volumes</b>		
Full vapor space		0.094625 m <sup>3</sup>
Empty vapor space		1.09765 m <sup>3</sup>
Total totes onsite	223	
Full totes	111	
Empty totes	112	
Full totes (cool)		10.50338 m <sup>3</sup>
Empty totes (cool)		122.9368 m <sup>3</sup>
Full totes (warm)		10.92211 m <sup>3</sup>
Empty totes (warm)		127.8379 m <sup>3</sup>
Full totes (delta)		0.418736 m <sup>3</sup> /day
Empty totes (delta)		4.901102 m <sup>3</sup> /day

<b>Mass</b>		
		0.28 ppmv MDI in displaced volume
		2.63 mg/m <sup>3</sup>
Full		1.10 mg/d
Empty		12.87 mg/d
Combined		13.97 mg/d
		5.10 g/yr
		0.0112 lb/yr
		5.62E-06 TPY
		MDI Emissions

Day tank filling displacement (per line)

55 gallon displaced vapor, MDI saturated

50 T C

0.000211518 torr - MDI VP

0.21 m3 displaced vapor

0.28 ppmv MDI in displaced volume

2.63 mg/m3

0.73 mg per fill

2035.7 gal/d

37.0 fill/d

27.06 mg/d

5.97E-05 lb/d

0.022 lb/yr

1.09E-05 TPY

MDI Emissions (tpy) = 7.62E-05

Methodology:

MDI Emissions (tons/yr) = 1.09E-05 tons/yr x 7 pultrusion lines

Die head vent (per line)

0.02 ppmv MDI  
0.194793 mg/m<sup>3</sup>  
28.316 m<sup>3</sup>/min  
5.515755 mg/min  
7942.688 mg/d  
7.942688 g/d  
0.01751 lb/d  
0.003196 TPY

Methodology:

MDI Emissions (tons/yr) = 0.003196 tons/yr x 7 pultrusion lines

MDI Properties

Density 10.3 lb/gal  
250.25 MW

MDI Vapor pressure

**Day tanks**  
 $\log_{10}(P) = A - (B / (T + C))$   
A            B            C  
9.2788    3617.492    229.27  
P in torr  
T=                    50 C  
  
279.2685 T+C  
12.95345 (B/T+C)  
-3.674653 A - (B/(T+C))  
0.000212 P (torr)

**Totes**  
 $\log_{10}(P) = A - (B / (T + C))$   
A            B            C  
9.2788    3617.492    229.27  
P in torr  
T=                    50 C  
  
279.2685 T+C  
12.95345 (B/T+C)  
-3.674653 A - (B/(T+C))  
0.000212 P (torr)



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
**Governor**

*Thomas W. Easterly*  
**Commissioner**

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

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

**TO:** Joseph Sumerak  
Conforce USA  
26239 Broadway Ave  
Oakwood Village, OH 44146

**DATE:** June 26, 2012

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

**SUBJECT:** Final Decision  
Registration  
103 - 32022 - 00047

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:  
Lewis Stern President  
Joseph VanCamp Cornerstone Environmental  
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 11/30/07

# Mail Code 61-53

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2		Lewis Stern President Conforce USA 2935 W 100 N Peru IN 46970 (RO CAATS)									
3		Miami County Board of Commissioners Miami County Courthouse Peru IN 46970 (Local Official)									
4		Peru City Council and Mayors Office 35 S. Broadway Peru IN 46970 (Local Official)									
5		Miami County Health Department Courthouse, Room 110 Peru IN 46970-2245 (Health Department)									
6		Mr. Joseph VanCamp Cornerstone Environmental 312 E Diamond St. Kendallville IN 46755 (Consultant)									
7		Kurt Brandstatter Central Paving, Inc. P.O. Box 357 Logansport IN 46947 (Affected Party)									
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