



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

To: Interested Parties

Date: May 22, 2014

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

Source Name: Liner Products, LLC

Permit Level: Registration

Permit Number: 117-34445-00028

Source Location: 1468 West Hospital Road, Paoli, Indiana

Type of Action Taken: Initial Permit

Notice of Decision: Approval - Registration

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the matter referenced above.

The final decision is available on the IDEM website at: <http://www.in.gov/apps/idem/caats/>
To view the document, select Search option 3, then enter permit 34445.

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

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

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

(continues on next page)

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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



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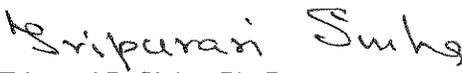
Michael R. Pence
Governor

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Commissioner

REGISTRATION OFFICE OF AIR QUALITY

**Liner Products, LLC
1468 West Hospital Road,
Paoli, Indiana 47454**

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. R117-34445-00028	
Issued by:  Tripurari P. Sinha, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: May 22, 2014

SECTION A SOURCE SUMMARY

This registration is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Registrant should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Registrant to obtain additional permits pursuant to 326 IAC 2.

A.1 General Information

The Registrant owns and operates a stationary manufacturing facility of tube-shaped liners.

Source Address: 1468 West Hospital Road, Paoli, Indiana 47454
General Source Phone Number: (812) 723-0244
SIC Code: 3999
County Location: Orange County
Source Location Status: Attainment for all criteria pollutants
Source Status: Registration

A.2 Emission Units and Pollution Control Equipment Summary

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

- (a) Five (5) Adhesive Application Lines, identified as Unit 001, using no control equipment, and exhausting outdoors; consisting of the following individual line names and individual maximum capacities: Small Seal Line: 998,900 seam feet/year, constructed in 1999; 1200 Line: 4,547,000 seam feet/year, constructed in 2002; 1500 Line: 2,207,600 seam feet/year, constructed in 2003; Big Seal Line: 1,797,600 seam feet/year, constructed in 1999; and 120 Line: 385,500 seam feet/year, constructed in 2009. The throughput associated with the five adhesive lines is limited by the operation of the two slitter lines which are identified as the Parkinson Slitter Line and the Catbridge Slitter Line.
- (b) Seventeen (17) indirect-heating, natural gas-fired space heaters, using no control, and exhausting outside, consist of the following:

Number of Units	Make	Model	MMBtu/hr (each)	Year Installed
5	Carrier	4GBA200A	0.16	1999
1	Rudd	Silhouette II	0.10	1999
1	Tempstar	DC90 - NTGM100HA3	0.10	1999
2	York	DM300N24N4AAC1	0.24	2005
4	Lennox	TGA240S2BS1G	0.208	2009
4	Sterling	TF/BTU-200 – TGUH-TF200A1NS111	0.20	2013

SECTION B GENERAL CONDITIONS

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

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]

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]

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]

- (a) All terms and conditions of permits established prior to Registration No. R117-34445-00028 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)]

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)]

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)]

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]

- (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 5-1-1 (Applicability) and 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this registration:

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

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

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) Seventeen (17) indirect-heating, natural gas-fired space heaters, using no control, and exhausting outside, consist of the following:

Number of Units	Make	Model	MMBtu/hr (each)	Year Installed
5	Carrier	4GBA200A	0.16	1999
1	Rudd	Silhouette II	0.10	1999
1	Tempstar	DC90 - NTGM100HA3	0.10	1999
2	York	DM300N24N4AAC1	0.24	2005
4	Lennox	TGA240S2BS1G	0.208	2009
4	Sterling	TF/BTU-200 – TGUH-TF200A1NS111	0.20	2013

(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 Emission Limitations [326 IAC 6-2-4(a)]

- (a) Pursuant to 326 IAC 6-2-4(a), particulate emissions from the seventeen (17) natural gas space heaters shall not exceed the limits as shown below:

Year of Construction	Number of Units	Unit ID	Unit Model	Calculated Particulate Limits, Pt (lb/MMBtu)	Allowable Pt Emissions (lbs/MMBtu)
1999	5	Carrier	4GBA200A	1.09	0.6
	1	Rudd	Silhouette II		
	1	Tempstar	DC90 - NTGM100HA3		
2005	2	York	DM300N24N4AAC1	0.98	0.6
2009	4	Lennox	TGA240S2BS1G	0.88	0.6
2013	4	Sterling	TF/BTU-200 – TGUH-TF200A1NS111	0.80	0.6

**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).

Company Name:	Liner Products, LLC
Address:	1468 West Hospital Road,
City:	Paoli, Indiana 47454
Phone Number:	(812) 723-0244
Registration No.:	R117-34445-00028

I hereby certify that Liner Products, LLC is :

still in operation.

I hereby certify that Liner Products, LLC is :

no longer in operation.

in compliance with the requirements of Registration No. R117-34445-00028.

not in compliance with the requirements of Registration No. R117-34445-00028.

Authorized Individual (typed):
Title:
Signature:
Phone Number:
Date:

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.

Noncompliance:

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

Technical Support Document (TSD) for a Registration

Source Description and Location
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Source Name:	Liner Products, LLC
Source Location:	1468 West Hospital Road, Paoli, Indiana 47454
County:	Orange
SIC Code:	3999
Registration No.:	R117-34445-00028
Permit Reviewer:	Daniel W Pell

On April 17, 2014, the Office of Air Quality (OAQ) received an application from Liner Products, LLC related to the operation of an existing plant.

Existing Approvals

There have been no previous approvals issued to this source.

County Attainment Status

The source is located in Orange County.

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

(a) **Ozone Standards**

Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Orange County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) **PM_{2.5}**

Orange 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}, SO₂, and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) **Other Criteria Pollutants**

Orange 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 Liner Products, LLC on April 17, 2014, relating to a stationary manufacturer of tube shaped liners applying for a Registration.

The source consists of the following existing emission units:

- (a) Five (5) Adhesive Application Lines, identified as Unit 001, using no control equipment, and exhausting outdoors; consisting of the following individual line names and individual maximum capacities: Small Seal Line: 998,900 seam feet/year, constructed in 1999; 1200 Line: 4,547,000 seam feet/year, constructed in 2002; 1500 Line: 2,207,600 seam feet/year, constructed in 2003; Big Seal Line: 1,797,600 seam feet/year, constructed in 1999; and 120 Line: 385,500 seam feet/year, constructed in 2009. The throughput associated with the five adhesive lines is limited by the operation of the two slitter lines which are identified as the Parkinson Slitter Line and the Catbridge Slitter Line.
- (b) Seventeen (17) indirect heating, natural gas-fired space heaters, using no control , and exhausting outside, consist of the following:

Number of Units	Make	Model	MMBtu/hr (each)	Year Installed
5	Carrier	4GBA200A	0.16	1999
1	Rudd	Silhouette II	0.10	1999
1	Tempstar	DC90 - NTGM100HA3	0.10	1999
2	York	DM300N24N4AAC1	0.24	2005
4	Lennox	TGA240S2BS1G	0.208	2009
4	Sterling	TF/BTU-200 – TGUH-TF200A1NS111	0.20	2013

Unregistered Emission Units

The source consists of the following unregistered emission units:

- (a) Five (5) Adhesive Application Lines, identified as Unit 001, consisting of the following individual line names: Small Seal Line, constructed in 1999; 1200 Line, constructed in 2002; 1500 Line, constructed in 2003; Big Seal Line, constructed in 1999; and 120 Line, constructed in 2009, with a total sealed seam maximum capacity of 9,936,544 seam feet/year, using no control equipment, and exhausting outdoors.

Enforcement Issues

IDEM is aware that the Small Seal Line, the Big Seal Line, and the 1200 Line have been constructed and have been in operation since 2002 prior to having obtained a Registration. IDEM is reviewing this matter and will take the appropriate action. This proposed approval is intended to satisfy the requirements of the registration rules.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – Registration

The following table reflects the unlimited potential to emit (PTE) of the entire source 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	NO _x	VOC	CO	GHGs as CO ₂ e**	Total HAPs	Worst Single HAP
NG Combustion Units	0.03	0.10	0.10	0.01	1.34	0.07	1.12	1,613	0.03	0.02 Hexane
Adhesive Application Lines	0.0	0.0	0.0	0.0	0.0	19.84	0.0	0.0	0.0	-
Total PTE of Entire Source	0.0	0.1	0.1	0.0	1.3	19.91	1.1	1,613	0.03	0.02 Hexane
Exemptions Levels**	< 5	< 5	< 5	< 10	< 10	< 10	< 25	< 100,000	< 25	< 10
Registration Levels**	< 25	< 25	< 25	< 25	< 25	< 25	< 100	< 100,000	< 25	< 10
negl. = negligible *Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a regulated air pollutant". **The 100,000 CO ₂ 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 VOC is within the ranges listed in 326 IAC 2-5.5-1(b)(1). The PTE of all other regulated pollutants are less than the ranges listed in 326 IAC 2-5.5-1(b)(1). Therefore, the source is subject to the provisions of 326 IAC 2-5.5 (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 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 Standards for Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60.40, Subpart Dc), are not included in the permit for the natural gas space heaters shown below because each of the space heaters is rated at less than 10 MMBtu/hr, and they are not steam generating units.

Number of Units	Make	Model	MMBtu/hr (each)	Year Installed
5	Carrier	4GBA200A	0.16	1999
1	Rudd	Silhouette II	0.10	1999
1	Tempstar	DC90 - NTGM100HA3	0.10	1999
2	York	DM300N24N4AAC1	0.24	2005
4	Lennox	TGA240S2BS1G	0.208	2009
4	Sterling	TF/BTU-200 – TGUH-TF200A1NS111	0.20	2013

- (b) There are no other New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the Registration.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, 40 CFR 63.11169, Subpart HHHHHH (326 IAC 20), are not included in the Registration, since paint stripping processes do not occur at this facility, the adhesive used is applied with an automatic-brushing system and not a spray-applied coating system, and the Tetrahydrofuran (THF) compound in the adhesive is a volatile organic compound (VOC) and not a target hazardous air pollutant (HAP) as defined in 40 CFR 63.11180.
- (d) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers at Area Sources, 40 CFR 63.11193, Subpart JJJJJJ (326 IAC 20), are not included in the Registration, since the natural gas space heaters do not generate steam and are not defined as boilers as described in 40 CFR 63.11237, although they are sources of indirect-heating located at an area source.
- (e) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (40 CFR 61) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the Registration.

Compliance Assurance Monitoring (CAM)

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

State Rule Applicability Determination

The following state rules are applicable to the source:

- (a) **326 IAC 2-5.1-2 (Registrations)**
 Registration applicability is discussed under the Permit Level Determination – Registration section above.

- (b) **326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))**
 The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.
- (c) **326 IAC 2-6 (Emission Reporting)**
 Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (d) **326 IAC 5-1 (Opacity Limitations)**
 Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this Registration:
- (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (e) **326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)**
 Pursuant to 326 IAC 6-2-4(a) (Particulate Limitations for Sources of Indirect Heating) particulate emissions from indirect heating facilities, existing and in operation after September 21, 1983, shall be limited by the following equation:

$$Pt = 1.09/Q^{0.26}$$

Where: Pt = Pounds of particulate matter per million Btu (lb/MMBtu) heat input
 Q = Total source maximum operating capacity rating in MMBtu/hour

Year of Construction	Number of Units	Unit ID	Unit Model	Maximum Heat Input Capacity (MMBtu/hr) (each)	Total Maximum Source Q (based on Year of Construction) (MMBtu/hr)	Calculated Particulate Limits, Pt (lb/MMBtu)
1999	5	Carrier	4GBA200A	0.16	1.0	1.09
	1	Rudd	Silhouette II	0.10		
	1	Tempstar	DC90 - NTGM100HA3	0.10		
2005	2	York	DM300N24N4AAC1	0.24	1.48	0.98
2009	4	Lennox	TGA240S2BS1G	0.208	2.312	0.88
2013	4	Sterling	TF/BTU-200 – TGUH-TF200A1NS111	0.20	3.112	0.81

$$Q1 = Q(1999) = ((5 \times 0.16) + 0.10 + 0.10) = 1.0 \text{ MMBtu/hr}$$

Pt for space heaters constructed in 1999 = 1.09 lb/MMBtu

$$Q2 = Q(1999) + Q(2005) = 1.0 + (2 \times .24) = 1.48 \text{ MMBtu/hr}$$

Pt for space heaters constructed in 2005 = 0.98 lb/MMBtu

$$Q3 = Q(1999) + Q(2005) + Q(2009) = 1.0 + 0.48 + (4 \times 0.208) = 2.312 \text{ MMBtu/hr}$$

Pt for space heaters constructed in 2009 = 0.88 lb/MMBtu

$$Q4 = Q(1999) + Q(2005) + Q(2009) + Q(2013) = 1.0 + 0.48 + 0.832 + (4 \times 0.20) \\ = 3.112 \text{ MMBtu/hr}$$

Pt for space heaters constructed in 2013 = 0.81 lb/MMBtu

Pursuant to 326 IAC 6-2-4, for Q less than 10 MMBtu, the allowable emissions cannot exceed 0.6 lbs/MMBtu heat input.

The following calculation represents the ability of the source to comply with this limit when using natural gas:

Using the emission factors and heating values provided, the following conclusion can be made:

$$\begin{aligned} \text{Particulate Matter (PM) Emissions} &= 1.9 \text{ lb PM/MM SCF} \times \text{MM SCF} / 1,020 \text{ MMBtu} \\ &= 0.0019 \text{ lbs/MMBtu} \end{aligned}$$

The 0.0019 lbs/MMBtu emission rate estimated using the AP-42 emission factor is less than all of the Pt limits that were calculated above.

Therefore, all of the natural gas space heaters are able to comply with 326 IAC 6-2-4(a).

- (f) **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.
- (g) **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.
- (h) **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.
- (i) **326 IAC 8-5 (VOC Rules: Miscellaneous Operations)**
The source is not subject to the requirements of 326 IAC 8-5, because the source is located in Orange County, Indiana and the source is not described as a Miscellaneous Operation in this rule. Therefore, 326 IAC 8-5 does not apply.
- (j) **326 IAC 8-22 (VOC Rules: Miscellaneous Industrial Adhesives)**
This rule applies to sources located in Lake and Porter counties. The source is not subject to the requirements of 326 IAC 8-22, because the source is located in Orange County, Indiana. Therefore, 326 IAC 8-22 does not apply.

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on April 17, 2014.

The operation of this source shall be subject to the conditions of the attached proposed Registration No. R117-34445-00028. The staff recommends to the Commissioner that this Registration be approved.

IDEM Contact

- (a) Questions regarding this proposed Registration can be directed to Daniel W Pell 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) 234-8532 or toll free at 1-800-451-6027 extension 4-8532.
- (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

**Appendix A: Emission Calculations
Summary of PTE for Entire Source**

Company Name: Liner Products, LLC
Address City IN Zip: 1468 West Hospital Road, Paoli, Indiana 47454
Permit Number: R117-34445-00028
Reviewer: Daniel W Pell

	Uncontrolled PTE (tons/year)										
	PM	PM-10	PM-2.5	SO ₂	NOX	VOC	CO	GHG as CO _{2e}	Total HAP	Worst Case HAP	
NG Space Heater Units	0.03	0.10	0.10	0.01	1.34	0.07	1.12	1,613	0.03	0.02	Hexane
Adhesive Application Lines	0.0	0.0	0.0	0.0	0.0	19.84	0.0	0.0	0.0	0.0	-
Total	0.0	0.1	0.1	0.0	1.3	19.91	1.1	1,613	0.03	0.02	Hexane

**Appendix A: Emissions Calculations
Indirect-Heating Space Heaters - Natural Gas Combustion PTE
Natural Gas Combustion Only
MM BTU/HR <100**

Company Name: Liner Products, LLC
Address City IN Zip: 1468 West Hospital Road, Paoli, Indiana 47454
Permit Number: R117-34445-00028
Reviewer: Daniel W Pell

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
3.112	1020	26.7

Space Heater Unit ID	Quantity	MMBtu/hr (each)	Total MMBtu/hr
Carrier	5	0.16	0.80
Sterling	4	0.20	0.80
Rudd	1	0.10	0.10
Tempstar	1	0.10	0.10
York	2	0.24	0.48
Lennox	4	0.208	0.832
TOTAL			3.112

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	0.03	0.10	0.10	0.01	1.34	0.07	1.12

*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 Page 3 for HAPs calculations

**Appendix A: Emissions Calculations
 Indirect-Heating Space Heaters - Natural Gas Combustion PTE
 Natural Gas Combustion Only
 MM BTU/HR <100**

Company Name: Liner Products, LLC
Address City IN Zip: 1468 West Hospital Road, Paoli, Indiana 47454
Permit Number: R117-34445-00028
Reviewer: Daniel W Pell

HAPS Calculations

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	Total - Organics
Potential Emission in tons/yr	2.806E-05	1.604E-05	1.002E-03	2.405E-02	4.544E-05	2.515E-02

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	Total - Metals
Potential Emission in tons/yr	6.682E-06	1.470E-05	1.871E-05	5.078E-06	2.806E-05	7.323E-05

Total HAPs	2.522E-02
Worst HAP	2.405E-02

Methodology is the same as above.

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 Page 4 for GHG calculations

Appendix A: Emissions Calculations
Indirect-Heating Space Heaters - Natural Gas Combustion PTE
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: Liner Products, LLC
Address City IN Zip: 1468 West Hospital Road, Paoli, Indiana 47454
Permit Number: R117-34445-00028
Reviewer: Daniel W Pell

Greenhouse Gas Calculations

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2 120,000	CH4 2.3	N2O 2.2
Potential Emission in tons/yr	1,604	0.0	0.0
Summed Potential Emissions in tons/yr	1,604		
CO2e Total in tons/yr	1,613		

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) x Emission Factor (lb/MMCF)/2,000 lb/ton

CO2e (tons/yr) based on 11/29/2013 federal GWPs= CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

**Appendix A: Emission Calculations
Seal Adhesive Containing Tetrahydrofuran (THF) - VOC PTE ***

**Company Name: Liner Products, LLC
Address City IN Zip: 1468 West Hospital Road, Paoli, Indiana 47454
Permit Number: R117-34445-00028
Reviewer: Daniel W Pell**

*Calculation Sheet provided by source and approved by IDEM.

Material	Maximum Quantity of Seams Sealed (Seam Feet/year)	Quantity of Seams Sealed per Gallon of Adhesive (Seam Feet/gal.)	Maximum Usage of Adhesive (gal/yr)	VOC Emission Factor (lb THF/gallon of adhesive)	Potential VOC Emissions (ton/yr)
Seal Adhesive Containing THF	9,936,600	1,858	5,348	7.42	19.84
TOTAL					19.84

METHODOLOGY

PTE VOC Emissions (ton/yr) = (Quantity of Seams Sealed (seam feet/year) / Quantity of Seams Sealed per Gallon of Adhesive (seam feet/gal. of adhesive)) * VOC E.F. (lb THF/gal. of adhesive) * (1 ton/2000 lbs)

The source has conservatively assumed that the adhesive will completely volatilize into VOC emissions.

The throughput associated with the five adhesive lines is limited by the operation of the two slitter lines which are identified as the Parkinson Slitter Line and the Catbridge Slitter Line.

Appendix A: Emissions Calculations
Calculations for Particulate Limits, Pt, for Sources of Indirect-Heating

Company Name: Liner Products, LLC
Source Address: 1468 West Hospital Road, Paoli, Indiana 47454
Permit Number: R117-34445-00028
Reviewer: Daniel W. Pell

NOTE: Only those NG combustion units that are identified as sources of indirect heating are used to determine the particulate limits, (Rule 326 IAC 6-2-4(a)).

For a total source maximum operating capacity rating, Q, less than 10 MMBtu/hr, particulate emissions, Pt, shall not exceed 0.6 pound per MMBtu of heat input. For Q greater than or equal to 10,000 MMBtu/hr, Pt shall not exceed 0.1 pound per MMBtu of heat input.

INDIRECT-HEATING SOURCES, (326 IAC 6-2-4(a))					
Construction Date	Type of Unit	Maximum Heat Input Capacity (MMBtu/hr)	Total Max. Source Q (Based on Year of Construction) (MMBtu/hr)	Calculated Pt (based on Rule 326 IAC 6-2-4(a)) (lb/MMBtu) PM	Allowable Pt Emissions (lb/MMBtu) (based on Rule 326 IAC 6-2-4(a))
1999	Carrier	5 x 0.16 = 0.80	1.0	1.09	0.6
	Rudd	0.1			
	Tempstar	0.1			
2005	York	2 x 0.24 = 0.48	1.48	0.98	0.6
2009	Lennox	4 x 0.208 = 0.832	2.312	0.88	0.6
2013	Sterling	4 x 0.20 = 0.80	3.112	0.81	0.6

METHODOLOGY:

PM Limit of NG Sources of Indirect Heating (constructed after September 21, 1983) is determined as follows:

Q = MMBtu/hr; Pt = lb/MMBtu

Pt = PM Limit = (1.09 / Q^{0.26}); (326 IAC 6-2-4(a))



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

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

TO: Brent Buckalew
Liner Products
1468 W. Hospital Road
Paoli, Indiana 47454

DATE: May 22, 2014

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

SUBJECT: Final Decision
Registration
117-34445-00028

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:
JD Gibbs / ENVIRON International Corp.
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	AWELLS 5/22/2014 Liner Products 117-34445-00028 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		

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2		Mr. Alec Kalla 8733 W. Summit Circle Drive French Lick IN 47432 (Affected Party)									
3		Orange County Commissioners 205 East Main Street Paoli IN 47454 (Local Official)									
4		Paoli Town Council 110 N. Gospel St. Paoli IN 47454 (Local Official)									
5		Orange County Health Department 205 E Main Street Paoli IN 47454-1591 (Health Department)									
6		John Blair 800 Adams Ave Evansville IN 47713 (Affected Party)									
7		JD Gibbs ENVIRON International Corporation 5747 Perimeter Drive, Suite 220 Dublin OH 43017 (Consultant)									
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