



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

To: Interested Parties

Date: June 10, 2014

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

Source Name: K & M Indiana LLC d/b/a Mitchell Plastics

Permit Level: Registration

Permit Number: 019-34396-00144

Source Location: 539 Champion Road Jeffersonville, 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 34396.

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

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

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

(continues on next page)

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

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

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

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

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



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REGISTRATION OFFICE OF AIR QUALITY

**K & M Indiana LLC d/b/a Mitchell Plastics
539 Champion Road
Jeffersonville, IN 47130**

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. 019-34396-00144	
Issued by:  Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: June 10, 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 plastic interior automotive parts flocking operation.

Source Address:	539 Champion Road, Jeffersonville, IN 47130
General Source Phone Number:	812-256-3351
SIC Code:	3089 (Plastics Products Not Elsewhere Classified)
County Location:	Clark County (Jefferson Township)
Source Location Status:	Nonattainment for PM 2.5 standard Attainment for all other criteria pollutants
Source Status:	Registration

A.2 Source Definition

K & M LLC d/b/a Mitchell Plastics operates an injection molding plant located at 301 Pike Street, Charlestown, IN, under current permit F019-30695-00103 December 19, 2011.

K & M LLC d/b/a Mitchell Plastics will operate a new operation which will be located at 539 Champion Road, Jeffersonville, IN 47130. The new facility will be a plastic interior automotive parts flocking operation.

These two plants do not meet all three parts of the major source definition so IDEM, OAQ's determination is that the injection molding plant and the automotive flocking plant are not part of the same major source.

A.3 Emission Units and Pollution Control Equipment Summary

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

- (a) One (1) flocking line, identified as Line 1, approved in 2014 for construction, consisting of the following emission units:
 - (1) One (1) adhesive spray booth, identified as AD-1, approved in 2014 for construction, with a maximum capacity of sixty-five (65) plastic interior automotive parts per hour, using dry filters for control and exhausting to Stack AD-1. The adhesive spray booth uses a high volume low pressure (HVLP) spray gun.
 - (2) One (1) flocking booth, identified as FB1, approved in 2014 for construction, with a maximum capacity of sixty-five (65) plastic interior automotive parts per hour with a process weight rate of 0.052 tons per hour, with nylon fiber applied using a closed-loop electrostatic method, using a closed loop cyclone baghouse for control and exhausting indoors to a baghouse.
- (b) One (1) flocking line, identified as Line 2, approved in 2014 for construction, consisting of the following emission units:

- (1) One (1) adhesive spray booth, identified as AD-2, approved in 2014 for construction, with a maximum capacity of sixty-five (65) plastic interior automotive parts per hour, using dry filters for control and exhausting to Stack AD-2. The adhesive spray booth uses a high volume low pressure (HVLP) spray gun.
 - (2) One (1) flocking booth, identified as FB2, approved in 2014 for construction, with a maximum capacity of sixty-five (65) plastic interior automotive parts per hour with a process weight rate of 0.052 tons per hour, with nylon fiber applied using a closed-loop electrostatic method, using a closed loop cyclone baghouse for control and exhausting indoors to a baghouse.
- (c) Four (4) natural gas-fired heaters with a total maximum heat input of 0.50 MMBtu/hour.
- (d) Paved roads and parking lots with public access.

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. 019-34396-00144 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 thirty percent (30%) 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.

Note: This source is located in Jefferson Township.

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) flocking line, identified as Line 1, approved in 2014 for construction, consisting of the following emission units:
 - (1) One (1) adhesive spray booth, identified as AD-1, approved in 2014 for construction, with a maximum capacity of sixty-five (65) plastic interior automotive parts per hour, using dry filters for control and exhausting to Stack AD-1. The adhesive spray booth uses a high volume low pressure (HVLP) spray gun.
 - (2) One (1) flocking booth, identified as FB1, approved in 2014 for construction, with a maximum capacity of sixty-five (65) plastic interior automotive parts per hour with a process weight rate of 0.052 tons per hour, with nylon fiber applied using a closed-loop electrostatic method, using a closed loop cyclone baghouse for control and exhausting indoors to a baghouse.
- (b) One (1) flocking line, identified as Line 2, approved in 2014 for construction, consisting of the following emission units:
 - (1) One (1) adhesive spray booth, identified as AD-2, approved in 2014 for construction, with a maximum capacity of sixty-five (65) plastic interior automotive parts per hour, using dry filters for control and exhausting to Stack AD-2. The adhesive spray booth uses a high volume low pressure (HVLP) spray gun.
 - (2) One (1) flocking booth, identified as FB2, approved in 2014 for construction, with a maximum capacity of sixty-five (65) plastic interior automotive parts per hour with a process weight rate of 0.052 tons per hour, with nylon fiber applied using a closed-loop electrostatic method, using a closed loop cyclone baghouse for control and exhausting indoors to a baghouse.
- (c) Four (4) natural gas-fired heaters with a total maximum heat input of 0.50 MMBtu/hour.
- (d) Paved roads and parking lots with public access.

(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(d)]

- (a) Particulate from Adhesive Booth 1 and Adhesive Booth 2 shall be controlled by dry filters, and the Registrant shall operate each control device in accordance with manufacturer's specifications.
- (b) If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:
 - (1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
 - (2) Operate equipment so that no overspray is visibly detectable at the exhaust or

accumulates on the ground.

- (c) If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

D.1.2 Particulate [326 IAC 6-3-2]

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-2, the particulate emissions from each flocking booth shall not exceed 0.566 pounds per hour when operating at a process weight rate of 0.052 tons per hour. The pound per hour limitation was calculated with the following equation:

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

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

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

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

**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:	K & M Indiana d/b/a Mitchell Plastics
Address:	539 Champion Road
City:	Jeffersonville, IN 47130
Phone Number:	812-256-3351
Registration No.:	019-34396-00144

I hereby certify that K & M Indiana LLC d/b/a Mitchell Plastics is:

still in operation.

I hereby certify that K & M Indiana LLC d/b/a Mitchell Plastics is:

no longer in operation.

in compliance with the requirements of Registration No. 019-34396-00144.

not in compliance with the requirements of Registration No. 019-34396-00144.

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:	K & M Indiana LLC d/b/a Mitchell Plastics
Source Location:	539 Champion Road, Jeffersonville, IN 47130
County:	Clark County
SIC Code:	3089 (Plastic Products Not Elsewhere Classified)
Registration No.:	R 019-34396-00144
Permit Reviewer:	Deborah Cole

On April 7, 2014, the Office of Air Quality (OAQ) received an application from K & M Indiana LLC d/b/a Mitchell Plastics related to the construction and operation of a new stationary plastic interior automotive parts flocking operation.

Source Definition

K & M LLC d/b/a Mitchell Plastics operates an injection molding plant located at 301 Pike Street, Charlestown, IN, under current permit F019-30695-00103 issued on December 19, 2011. K & M LLC d/b/a Mitchell Plastics has applied for a permit for a new operation which will be located at 539 Champion Road, Jeffersonville, IN 47130. The new facility will be a plastic interior automotive parts flocking operation. IDEM, OAQ examined whether the two sources are one "major source" as defined in 326 IAC 2-7-1(22). In order for these two plants to be considered one major source, they must meet all three of the following criteria:

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

Common Control and Common Ownership

Mitchell Plastics has a 51% ownership in the facilities and Kojima Press has a 49% ownership in the facilities and all corporate officers and directors are common to both facilities.

Pursuant to IDEM Nonrule Policy Document AIR-005, Guidance on Definition of "Source" for Collocated Activities, plants that are under common ownership are also under common control. This guidance document is available at <http://www.in.gov/idem/4694.htm> on IDEM's website. Therefore, #1 of the major source definition has been met.

SIC Codes and Support Relationships

The Standard Industrial Classification Manual of 1987 sets out how to determine the proper Standard Industrial Classification (SIC) Code for each type of business. More information about SIC Codes is available at http://www.osha.gov/pls/imis/sic_manual.html on the Internet.

The SIC Code is determined for a source by determining the principal product or activity of each plant. The injection molding plant manufactures both automotive and consumer goods. The flocking plant does not manufacture a product but rather applies a fiber coating to automotive products produced elsewhere. Both plants have the two-digit SIC Code of 30 for the Major Group Rubber and Miscellaneous Plastic Products. Therefore, #2 of the major source definition has been met.

A plant is a support facility to another plant if it dedicates 50% or more of its output to the other plant.

In this case, 2% to 4% of the total production of the injection molding plant will be sent to the flocking operation, where they will comprise 100% of the parts for the flocking operation. None of the output from the flocking operation will go to the injection molding operation. Therefore, the plants do not have a support relationship with each other.

Distance and Relationship

The last criterion of the source definition is the determination of whether the sources are on the same property, on contiguous properties or on adjacent properties. The plants are not located on the same or contiguous properties. IDEM, OAQ evaluated whether the plants are located on adjacent properties.

The term "adjacent" is not defined in Indiana's rules. IDEM's Nonrule Policy Document Air-005 provides guidance in determining when two properties are adjacent. The nonrule policy document states:

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

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

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

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

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

In this instance, there is no physical connection between the two plants and the plants are approximately 16 miles apart. The plants have separate work forces and each plant has its own manager. The administrative staff is the same for both sources but do not travel between the two plants. The General Manager is the only person who travels between the two plants, 1 to 2 times per week. The flocking plant receives less than 5% of the injection molding plant's production and does not return any output to the injection molding plant. The production process is "split" only for that small percentage of parts that are flocked. Considering all these factors, IDEM, OAQ determines that the two plants are not located on adjacent properties.

Determination

The two plants do not meet all three parts of the major source definition so IDEM, OAQ's determination is

that the injection molding plant and the automotive flocking plant are not part of the same major source.

Existing Approvals

There have been no previous approvals issued to this source.

County Attainment Status

The source is located in Clark 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}	Basic nonattainment designation effective federally April 5, 2005, for PM _{2.5} .
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.

¹Attainment effective October 23, 2001, for the 1-hour ozone standard for the Louisville area, including Clark County, and is a maintenance area for the 1-hour ozone National Ambient Air Quality Standard (NAAQS) for purposes of 40 CFR Part 51, Subpart X*. The 1-hour standard 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. Clark 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}
Clark County has been classified as nonattainment for PM_{2.5} in 70 FR 943 dated January 5, 2005. On May 8, 2008, U.S. EPA promulgated specific New Source Review rules for PM_{2.5} emissions. These rules became effective on July 15, 2008. Therefore, direct PM_{2.5}, SO₂, and NO_x emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5.
- (c) Other Criteria Pollutants
Clark 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 Mitchell Plastics on April 7, 2014 relating to approval to install an automotive flocking operation. The process involves sending the part through an adhesive spray booth where an adhesive is applied to the part. The part is then sent to a flocking booth where nylon fiber will be applied using a closed-loop electrostatic method where a charge is

generated that propels the fibers at a high velocity on to the adhesive that has been applied to the part. The part is then sent to an infrared oven with a maximum operating temperature of 180 degree Fahrenheit. The parts are then cleaned and packed for shipping.

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

- (a) One (1) flocking line, identified as Line 1, approved in 2014 for construction, consisting of the following emission units:
 - (1) One (1) adhesive spray booth, identified as AD-1, approved in 2014 for construction, with a maximum capacity of sixty-five (65) plastic interior automotive parts per hour, using dry filters for control and exhausting to Stack AD-1. The adhesive spray booth uses high volume low pressure (HVLP) spray guns.
 - (2) One (1) flocking booth, identified as FB - 1, approved in 2014 for construction, with a maximum capacity of sixty-five (65) plastic interior automotive parts per hour with a process weight rate of 0.052 tons per hour, using a closed loop cyclone baghouse for control and exhausting indoors to a baghouse.
- (b) One (1) flocking line, identified as Line 2, approved in 2014 for construction, consisting of the following emission units:
 - (1) One (1) adhesive spray booth, identified as AD-2, approved in 2014 for construction, with a maximum capacity of sixty-five (65) plastic interior automotive parts per hour, using dry filters for control and exhausting to Stack AD-2. The adhesive spray booth uses high volume low pressure (HVLP) spray guns.
 - (2) One (1) flocking booth, identified as FB2, approved in 2014 for construction, with a maximum capacity of sixty-five (65) plastic interior automotive parts per hour with a process weight rate of 0.052 tons per hour, using a closed loop cyclone baghouse for control and exhausting indoors to a baghouse.
- (c) Four (4) natural gas-fired heaters with a total maximum heat input of 0.50 MMBtu/hour.
- (d) Paved roads and parking lots with public access.

Enforcement Issues

There are no pending enforcement actions related to this source.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – 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
Adhesive Spray Booth (AD-1)	1.54	1.54	1.54	-	-	1.54	-	-	1.73	1.72 (benzyl alcohol)
Adhesive Spray Booth (AD-2)	1.54	1.54	1.54	-	-	1.54	-	-	1.73	1.72 (benzyl alcohol)
Flocking Booth (FB1)	5.48	5.48	5.48	-	-	-	-	-	-	-
Flocking Booth (FB2)	5.48	5.48	5.48	-	-	-	-	-	-	-
Natural Gas Combustion	0.004	0.016	0.016	0.001	0.21	0.012	0.18	259.18	0.004	0.004 (Hexane)
Fugitive Emissions	0.07	0.01	0.00	-	-	-	-	-	-	-
Total PTE of Entire Source	14.02	14.04	14.04	0.001	0.22	3.08	0.18	259.18	3.45	1.72 (benzyl alcohol)
Registration Levels**	< 25	< 25	< 25	< 25	< 25	< 25	< 100	< 100,000	< 25	< 10

*Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a regulated air pollutant".
 **The 100,000 CO₂e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

- (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 CO₂ equivalent emissions (CO₂e) per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) The requirements of the New Source Performance Standard for Automobile and Light Duty Truck Surface Coating Operations, 40 CFR 60, Subpart MM (326 IAC 12), are not included in the permit, since this source does not operate an automobile or light-duty truck assembly plant. This source only consists of surface coating of plastic interior automotive parts.
- (b) There are no other 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)

- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Surface Coating of Automobiles and Light-Duty Trucks, 40 CFR 63.3080, Subpart IIII (326 IAC 20-85), are not included in the permit, since this source is not located at a facility which applies topcoat to new automobile or new light-duty truck bodies or body parts for new automobiles or new light-duty trucks, is not a major source, is not located at a major source, and is not part of a major source of emissions of hazardous air pollutants (HAP). This source only consists of surface coating of plastic interior automotive parts.
- (d) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Surface Coating of Plastic Parts and Products, 40 CFR 63.4480, Subpart PPPP (326 IAC 20-81), are not included in the permit, since this source is not a major source, located at a major source, or part of a major source of emissions of HAP.
- (e) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63.7480, Subpart DDDDD (326 IAC 20-95), are not included in the permit, since Heater 1 is not a process heater, the source is not a major source, located at a major source, or part of a major source of emissions of HAP. A process heater indirectly heats a process material. Heater 1 provides comfort heating to the facility; it does not indirectly heat a process material.
- (f) 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, are not included in the permit. This area source does not perform paint stripping using MeCl for the removal of dried paint from wood, metal, plastic, and other substrates; does not perform spray application of coatings to motor vehicles and mobile equipment; and does not perform spray applications of coatings that contain the target HAP (compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd)) to a plastic substrate on a part or product.
- (g) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63.11193, Subpart JJJJJJ, are not included in the permit. This area source does not use an industrial, commercial, or institutional boiler. Heater 1 provides comfort heating to the facility; it does not indirectly heat a process material.
- (h) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

Compliance Assurance Monitoring (CAM)

- (g) 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

- (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 thirty percent (30%) 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.
- Note: This source is located in Jefferson Township.
- (e) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.
- (f) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
The source is not subject to the requirements of 326 IAC 6-5, because the source does not have potential fugitive particulate emissions greater than 25 tons per year. Therefore, 326 IAC 6-5 does not apply.
- (g) 326 IC 6.5-2-1 (Particulate Matter Limitations Except Lake County)
The source is not subject to the requirements of 326 IAC 6.5-2-1 even though the source is located in Clark County it is not one of the sources specifically listed in the rule
- (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.

Adhesive Booth 1 and Adhesive Booth 2

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

- (a) Particulate from Adhesive Booth 1 and Adhesive Booth 2 shall be controlled by dry particulate filters in accordance with manufacturer's specifications.
 - (b) If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:
 - (1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
 - (2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
 - (c) If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.
- (k) 326 IAC 8-2-2 (Automobile and Light-Duty Truck Coating Operations)
Pursuant to 326 IAC 8-2-2, Adhesive Booth 1 and Adhesive Booth 2 are exempt from the requirements of 326 IAC 8-2-2, because the source does not coat passenger car or passenger car derivatives capable of seating twelve (12) or fewer passengers and any motor vehicle rated at 3,864 kilograms (eight thousand five hundred (8,500 pounds) gross weight or less which are designed primarily for the purpose of transportation or are derivatives of such vehicles. This source only consists of surface coating of plastic interior automotive parts, which do not meet the definition of automobiles or light duty trucks as defined in 326 IAC 8-2-2(a).
- (l) 326 IAC 8-2-9 (Miscellaneous Metal and Plastic Coating Operations)
The source is not subject to the requirements of 326 IAC 8-2-9 since it does not perform metal surface coating of large and small farm machinery, small household appliances, office equipment, or commercial and industrial machinery, and does not coat metal parts or products under the Standard Industrial Classification Code of major groups #33, #34, #35, #36, #37, #38, or #39. This source performs the surface coating of plastic interior automotive parts under the Standard Industrial Classification Code of 3089 (major group #30). However the source is not located in Lake or Porter County.
- (m) 326 IAC 8-10 (Automobile Refinishing)
The requirements of 326 IAC 8-10 apply to any person who owns, leases, operates, or controls a facility, as defined in 326 IAC 1-2-27, which refinishes motor vehicles, motor vehicle parts, motor vehicle components, or mobile equipment in any Indiana county. This facility coats vehicle components under the Standard Industrial Classification (SIC) code of 3089 (plastic products, not elsewhere classified) and not under the SIC code of 7532 (top, body, and upholstery repair shops and paint shops). The source does not perform refinishing operations for after-market motor vehicles, motor vehicle parts, motor vehicle components, or mobile equipment. Therefore, the requirements of 326 IAC 8-10 are not applicable.
- (n) 326 IAC 8-22 (Miscellaneous Industrial Adhesives)
The source is not subject to the requirements of 326 IAC 8-22 since it is not located in Lake County or Porter County.
- (o) There are no other 326 IAC 8 Rules that are applicable to the facility.

Flocking Booth 1 and Flocking Booth 2

- (p) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2, the particulate emissions from each flocking booth shall not exceed 0.566 pounds per hour when operating at a process weight rate of 0.052 tons per hour. The pound per hour limitation was calculated with the following equation:

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

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

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 7, 2014.

The construction and operation of this source shall be subject to the conditions of the attached proposed Registration No. 019-34396-00144. The staff recommends to the Commissioner that this Registration be approved.

IDEM Contact

- (a) Questions regarding this proposed Registration can be directed to Deborah Cole 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) 234-5377 or toll free at 1-800-451-6027 ext. 4-5377.
- (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: Emissions Calculations
Source-wide Summary**

Company Name: K & M LLC dba Mitchell Plastics
Address City IN Zip: 539 Champion Road, Jeffersonville, IN 47130
Registration Number: 019-34396-00144
Reviewer: Deborah Cole

Potential to Emit of Entire Source											
Emission Unit	PM (tons/yr)	PM10 (tons/yr)	PM2.5 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	GHGs (tons/yr)	Total HAPs (tons/yr)	Worst Single HAP	
Spray Booth (AD-1)	1.54	1.54	1.54	-	-	1.54	-	-	1.73	1.72	Benzyl Alcohol
Spray Booth (AD-2)	1.54	1.54	1.54	-	-	1.54	-	-	1.73	1.72	Benzyl Alcohol
Flocking Booth (FB1)	5.48	5.48	5.48	-	-	-	-	-	-	-	-
Flocking Booth (FB2)	5.48	5.48	5.48	-	-	-	-	-	-	-	-
Natural Gas Combustion Units	0.004	0.016	0.016	0.001	0.21	0.012	0.180	259.18	0.004	0.004	Hexane
Paved Roads	0.07	0.01	0.00	-	-	-	-	-	-	-	-
Total	14.02	14.04	14.04	0.001	0.21	3.08	0.18	259.18	3.45		

- = negligible

Calculations are based on 8760 hours of operation.

**Appendix A: Emissions Calculations
VOC and Particulate
From Adhesive**

**Company Name: K & M LLC dba Mitchell Plastics
Address City IN Zip: 539 Champion Road, Jeffersonville, IN 47130
Registration Number: 019-34396-00144
Reviewer: Deborah Cole**

Material	Density (Lb/Gal)	Weight % Volatile (H2O &)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less	Pounds VOC per gallon of coating	Potential VOC (lbs per hour)	Potential VOC (lbs per day)	Potential VOC (tons per year)	Particulate Potential (tons per)	lb VOC/gal solids	Transfer Efficiency
Adhesive Booth 1	9.17	60.80%	51.00%	9.80%	56.10%	43.10%	0.006	65	2.05	0.90	0.35	8.41	1.54	1.54	2.09	75%

1.54 1.54 2.09

Material	Density (Lb/Gal)	Weight % Volatile (H2O &)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Adhesive Booth 2	9.17	60.80%	51.0%	9.8%	56.1%	43.10%	0.006	65	2.05	0.90	0.35	8.41	1.54	1.54	2.09	75%

1.54 1.54

Potential VOC (tons per year)	Potential PM (tons per)
3.07	3.07

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

**Appendix A: Emission Calculations
HAP Emission Calculations**

Company Name: K & M LLC dba Mitchell Plastics
Address City IN Zip: 539 Champion Road, Jeffersonville, IN 47130
Registration Number: 019-34396-00144
Reviewer: Deborah Cole

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Benzyl Alcohol	Weight % Formaldehyde	Weight % Stryene	Weight % Acrylonitrile	Benzyl Alcohol Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Sytrene Emissions (ton/yr)	Acrylonitrile Emissions (ton/yr)	Total HAPs for Adhesive 1
Adhesive 1	9.17	0.006	65	11.00%	0.004%	0.005%	0.005%	1.72	0.0006	0.0008	0.0008	
								1.72	0.0006	0.0008	0.0008	1.73

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Benzyl Alcohol	Weight % Formaldehyde	Weight % Stryene	Weight % Acrylonitrile	Benzyl Alcohol Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Sytrene Emissions (ton/yr)	Acrylonitrile Emissions (ton/yr)	Total HAPs for Adhesive 2
Adhesive 2	9.17	0.006	65	11.00%	0.004%	0.005%	0.005%	1.72	0.0006	0.0008	0.0008	
								1.72	0.0006	0.0008	0.0008	1.73

Total Single HAP Potential Emissions (tons/yr)	3.446	0.0013	0.0016	0.0016
Total Combined HAP Potential Emissions (tons/yr)	3.451			

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

**Appendix A: Emissions Calculations
Flocking Booths**

**Company Name: K & M LLC dba Mitchell Plastics
Address City IN Zip: 539 Champion Road, Jeffersonville, IN 47130
Registration Number: 019-34396-00144
Reviewer: Deborah Cole**

Material	Particulate Collected Daily (lb/8 Hour Shift)	Particulate Collected (lb/hr)	Control Efficiency	Uncontrolled PM (tons/yr)	Controlled PM (lb/hr)	Controlled PM (tons/yr)
Flocking Booth 1	10	1.25	95.00%	5.48	0.063	0.274
Flocking Booth 2	10	1.25	95.00%	5.48	0.063	0.274
Combined Total				10.95	0.13	0.55

METHODOLOGY

Note:

Particulate Collected Daily for two booths (lb/8 hour shift) = 20
 Particulate Collected Daily per booth (lb/8 hr shift) = 20 lbs/2 booths = 10
 Particulate Collected (lb/hr) = Particulate Collected Daily per booth (lb/8hour shift) * (8 hour shift / 8 hour)
 Uncontrolled PM (lb/hr) = Particulate collected (lb/hr) / Control Efficiency
 Uncontrolled PM (tons/yr) = Uncontrolled PM (lb/hr) * (24 hr / 1 day) * (365 days / 1 yr) * (1 ton / 2000 lbs)
 Controlled PM (lb/hr) = Controlled PM (lb/hr) * (1 year / 365 days) * (1 day / 24 hrs) * (2000 lb / 1 ton)
 Controlled PM (ton/yr) = Uncontrolled PM (ton/yr) * (1 - Control Efficiency)

326 IAC 6-3-2(e) Allowable Rate of Emissions

	Process Rate (materials throughput) (lbs/hr)	Process Weight Rate (tons/hr)	Allowable PM Emissions (lbs/hr)
Flocking Booth 1	104	0.052	0.566
Flocking Booth 2	104	0.052	0.566
TOTAL	208	0.104	1.131

Methodology

Allowable Emissions (E) (lb/hr) = 4.10(Process Weight Rate)^{0.67}

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

**Company Name: K & M LLC dba Mitchell Plastics
Address City IN Zip: 539 Champion Road, Jeffersonville, IN 47130
Registration Number: 019-34396-00144
Reviewer: Deborah Cole**

Heater	H1	0.125
Heater	H2	0.125
Heater	H3	0.125
Heater	H4	0.125
Total	all units	0.50

Heat Input Capacity MMBtu/hr	HHV $\frac{\text{mmBtu}}{\text{mmscf}}$	Potential Throughput MMCF/yr
0.50	1020	4.29

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	0.00	0.02	0.02	0.00	0.21	0.01	0.18

*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

HAPS Calculations

Emission Factor in lb/MMcf	HAPs - Organics					Total - Organics
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	0.0000	0.0000	0.0002	0.0039	0.0000	4.040E-03

Emission Factor in lb/MMcf	HAPs - Metals					Total - Metals
	Lead	Cadmium	Chromium	Manganese	Nickel	
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	0.0000	0.0000	0.0000	0.0000	0.0000	1.177E-05
	Total HAPs					4.052E-03
	Worst HAP					3.865E-03

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.

Greenhouse Gas Calculations

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2	CH4	N2O
	120,000	2.3	2.2
Potential Emission in tons/yr	257.65	0.00	0.00
Summed Potential Emissions in tons/yr	257.66		
CO2e Total in tons/yr	259.18		

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) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

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

**Company Name: K & M LLC dba Mitchell Plastics
Address City IN Zip: 539 Champion Road, Jeffersonville, IN 47130
Registration Number: 019-34396-00144
Reviewer: Deborah Cole**

Paved Roads at Industrial Site

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

Vehicle Information (provided by source)

Type	Maximum number of vehicles per day	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Passenger Vehicles entering plants	10.0	1.0	10.0	1.0	10.0	10000	1.894	18.9	6912.9
Passenger Vehicle leaving plants	10.0	1.0	10.0	1.0	10.0	10000	1.894	18.9	6912.9
Truck entering plants	5.0	1.0	5.0	1.0	5.0	10000	1.894	9.5	3456.4
Truck leaving plants	5.0	1.0	5.0	1.0	5.0	10000	1.894	9.5	3456.4
Totals			30.0		30.0			56.8	20738.6

Average Vehicle Weight Per Trip = $\frac{1.0}{1.89}$ tons/trip
Average Miles Per Trip = $\frac{1.89}{1.0}$ miles/trip

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

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	1.0	1.0	1.0	tons = average vehicle weight (provided by source)
sL =	0.6	0.6	0.6	g/m ² = Ubiquitous Baseline silt loading value for paved roads Table 13.2.1-2

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

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

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.007	0.001	0.0003	lb/mile
Mitigated Emission Factor, Eext =	0.006	0.001	0.0003	lb/mile
Dust Control Efficiency =	0%	0%	0%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Passenger Vehicles entering plants	0.02	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00
Passenger Vehicle leaving plants	0.02	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00
Truck entering plants	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00
Truck leaving plants	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00
Totals	0.07	0.01	0.00	0.07	0.01	0.00	0.07	0.01	0.00

Methodology

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Unmitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Mitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
Controlled PTE (tons/yr) = [Mitigated PTE (tons/yr)] * [1 - Dust Control Efficiency]

Abbreviations

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



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

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

TO: Pami Egan
K & M Indiana, LLC d/b/a Mitchell Plastics
301 Pike Street
Charlestown, IN 47111

DATE: June 10, 2014

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

SUBJECT: Final Decision
Registration
019-34396-00144

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:
Rick Cartuyvelles – General Manager
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	GHOTOPP 6/10/2014 K & M Indiana LLC dba Mitchell Plastics 019-34396-00144 Final		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	Type of Mail: CERTIFICATE OF MAILING ONLY	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Pami Egan K & M Indiana LLC dba Mitchell Plastics 301 Pike St Charlestown IN 47111 (Source CAATS) via confirmed delivery										
2		Rick Cartuyvelles GM K & M Indiana LLC dba Mitchell Plastics 301 Pike St Charlestown IN 47111 (RO CAATS)										
3		Ms. Rhonda England 17213 Persimmon Run Rd Borden IN 47106-8604 (Affected Party)										
4		Ms. Betty Hislip 602 Dartmouth Drive, Apt 8 Clarksville IN 47129 (Affected Party)										
5		Jeffersonville City Council and Mayors Office 500 Quarter Master Jeffersonville IN 47130 (Local Official)										
6		Clark County Health Department 1320 Duncan Avenue Jeffersonville IN 47130-3723 (Health Department)										
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