



# Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

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

Michael R. Pence  
*Governor*

Carol S. Comer  
*Commissioner*

## **NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT**

Preliminary Findings Regarding a  
Significant Revision to a  
Federally Enforceable State Operating Permit (FESOP)  
for Heartland Recreational Vehicles, LLC in Elkhart County

Significant Permit Revision No.: 039-36439-00621

The Indiana Department of Environmental Management (IDEM) has received an application from Heartland Recreational Vehicles, LLC, located at:

1001 All Pro Drive, Elkhart, IN 46514  
2944 Dexter Drive, Elkhart, IN 46514  
1140 D.I. Drive, Elkhart, IN 46514  
1111 All Pro Drive, Elkhart, IN 46514  
2900 Dexter Drive, Elkhart, IN 46514  
1110 C.R. 6 West, Elkhart, IN 46514  
1110 D.I Drive, Elkhart, IN 46514  
2950 Paul Drive, Elkhart, IN 46514  
2824 Paul Drive, Elkhart, IN 46514  
2929 Gateway Drive, Elkhart, IN 46514  
2901 Dexter Drive, Elkhart, IN 46514

for a significant revision of its FESOP issued on March 16, 2011. If approved by IDEM's Office of Air Quality (OAQ), this proposed revision would allow Heartland Recreational Vehicles, LLC to make certain changes at its existing source. Heartland Recreational Vehicles, LLC has applied to:

- (1) Increase in production of travel trailers at Plant 2, Plant 7A / 7B, Plant 11, Plant 21, Plant 22, Plant 69A / 69B;
- (2) Reconfiguration of Plant 3 to a maintenance shop and the existing lamination process relocated to Plant 19;
- (3) Construction and operation of return and service center Plant 5 and customer service Plant 6;
- (4) Removal of Plant 16 and Plant 23; and
- (5) Construction and operation of welding and natural gas insignificant activities.

The applicant intends to construct and operate new equipment that will emit air pollutants; therefore, the permit contains new or different permit conditions. In addition, some conditions from previously issued permits/approvals have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes (e.g., changes that add or modify synthetic minor emission limits). The potential to emit of any regulated air pollutants will continue to be limited to less than the Title V and PSD major threshold levels. IDEM has reviewed this application and has developed preliminary findings, consisting of a draft permit and several supporting documents, which would allow the applicant to make this change.

A copy of the permit application and IDEM's preliminary findings are available at:

Elkhart Public Library  
300 S. Second St.  
Elkhart, IN 46514

and

IDEM Northern Regional Office  
300 N. Michigan Street, Suite 450  
South Bend, IN 46601-1295

A copy of the preliminary findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>.

#### **How can you participate in this process?**

The date that this notice is published in a newspaper marks the beginning of a 30-day public comment period. If the 30<sup>th</sup> day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the **air pollution impact** of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public meeting instead of, or in addition to, a public hearing. If a public hearing or meeting is held, IDEM will make a separate announcement of the date, time, and location of that hearing or meeting. At a hearing, you would have an opportunity to submit written comments and make verbal comments. At a meeting, you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM's mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number SPR 039-36439-00621 in all correspondence.

#### **Comments should be sent to:**

Thomas Olmstead  
IDEM, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
(800) 451-6027, ask for extension 3-9664  
Or dial directly: (317) 233-9664  
Fax: (317) 232-6749 attn: Thomas Olmstead  
E-mail: [Tolmstea@idem.IN.gov](mailto:Tolmstea@idem.IN.gov)

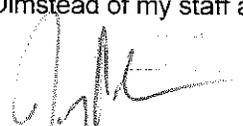
All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor, or noise. For such issues, please contact your local officials.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

**What will happen after IDEM makes a decision?**

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM's response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM's decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, at the IDEM Regional Office indicated above, and the IDEM public file room on the 12<sup>th</sup> floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions, please contact Thomas Olmstead of my staff at the above address.



Jenny Acker, Section Chief  
Permits Branch  
Office of Air Quality



# Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • [www.idem.IN.gov](http://www.idem.IN.gov)

**Michael R. Pence**  
Governor

**Carol S. Comer**  
Commissioner

## DRAFT

Larry York  
Heartland Recreational Vehicles, LLC  
1001 All Pro Drive,  
Elkhart, IN 46514

Re: 039-36439-00621  
Significant Revision to  
F039-29849-00621

Dear Larry York:

Heartland Recreational Vehicles, LLC was issued a Federally Enforceable State Operating Permit (FESOP) (Renewal) No. F039-29849-00621 on March 16, 2011 for a stationary non-motorized travel trailer manufacturing plant located at:

1001 All Pro Drive, Elkhart, IN 46514  
2944 Dexter Drive, Elkhart, IN 46514  
1140 D.I. Drive, Elkhart, IN 46514  
1111 All Pro Drive, Elkhart, IN 46514  
2900 Dexter Drive, Elkhart, IN 46514  
1110 C.R. 6 West, Elkhart, IN 46514  
1110 D.I Drive, Elkhart, IN 46514  
2950 Paul Drive, Elkhart, IN 46514  
2824 Paul Drive, Elkhart, IN 46514  
2929 Gateway Drive, Elkhart, IN 46514  
2901 Dexter Drive, Elkhart, IN 46514

On November 2, 2015, the Office of Air Quality (OAQ) received an application from the source requesting to:

- (1) Increase in production of travel trailers at Plant 2, Plant 7A / 7B, Plant 11, Plant 21, Plant 22, Plant 69A / 69B;
- (2) Reconfiguration of Plant 3 to a maintenance shop and the existing lamination process relocated to Plant 19;
- (3) Construction and operation of return and service center Plant 5 and customer service Plant 6;
- (4) Removal of Plant 16 and Plant 23; and
- (5) Construction and operation of welding and natural gas insignificant activities.

Pursuant to the provisions of 326 IAC 2-8-11.1, these changes to the permit are required to be reviewed in accordance with the Significant Permit Revision (SPR) procedures of 326 IAC 2-8-11.1(f). Pursuant to the provisions of 326 IAC 2-8-11.1, a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document (TSD).

The following construction conditions are applicable to the proposed project:

## DRAFT

1. General Construction Conditions  
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit  
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit.

All other conditions of the permit shall remain unchanged and in effect. Please find attached the entire FESOP as revised.

A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Thomas Olmstead of my staff at 317-233-9664 or 1-800-451-6027, and ask for extension 3-9664.

Sincerely,

Jenny Acker, Section Chief  
Permits Branch  
Office of Air Quality

Attachments: Technical Support Document and revised permit

JA/to

cc: File - Elkhart County  
Elkhart County Health Department  
U.S. EPA, Region V  
Compliance and Enforcement Branch



# 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

Carol S. Comer  
Commissioner

DRAFT

## New Source Construction and Federally Enforceable State Operating Permit Renewal

**Heartland Recreational Vehicles, LLC  
1001 All Pro Drive  
Elkhart, Indiana 46514**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

**The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.**

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-8-11.1, applicable to those conditions

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

Operation Permit No. F039-29849-00621	
Issued by: Original Signed Jenny Acker, Section Chief Permits Branch, Office of Air Quality	Issuance Date: March 16, 2011  Expiration Date: March 16, 2021

Administrative Amendment No. 039-33732-00621, issued on November 22, 2013

Significant Permit Revision No.: F039-36439-00621	
Issued by:  Jenny Acker, Section Chief Permits Branch Office of Air Quality	Issuance Date:  Expiration Date: March 16, 2021

DRAFT

## Table of Contents

<b>SECTION A</b>	<b>SOURCE SUMMARY .....</b>	<b>5</b>
A.1	General Information [326 IAC 2-8-3(b)]	
A.2	Source Definition [326 IAC 2-8-1][326 IAC 2-7-1(22)]	
A.3	Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]	
A.4	Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(l)]	
A.5	FESOP Applicability [326 IAC 2-8-2]	
<b>SECTION B</b>	<b>GENERAL CONDITIONS.....</b>	<b>17</b>
B.1	Definitions [326 IAC 2-8-1]	
B.2	Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]	
B.3	Term of Conditions [326 IAC 2-1.1-9.5]	
B.4	Enforceability [326 IAC 2-8-6][IC 13-17-12]	
B.5	Severability [326 IAC 2-8-4(4)]	
B.6	Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]	
B.7	Duty to Provide Information [326 IAC 2-8-4(5)(E)]	
B.8	Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]	
B.9	Annual Compliance Certification [326 IAC 2-8-5(a)(1)]	
B.10	Compliance Order Issuance [326 IAC 2-8-5(b)]	
B.11	Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]	
B.12	Emergency Provisions [326 IAC 2-8-12]	
B.13	Prior Permits Superseded [326 IAC 2-1.1-9.5]	
B.14	Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]	
B.15	Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]	
B.16	Permit Renewal [326 IAC 2-8-3(h)]	
B.17	Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]	
B.18	Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]	
B.19	Source Modification Requirement [326 IAC 2-8-11.1]	
B.20	Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]	
B.21	Transfer of Ownership or Operational Control [326 IAC 2-8-10]	
B.22	Annual Fee Payment [326 IAC 2-7-19][326 IAC 2-8-4(6)][326 IAC 2-8-16][326 IAC 2-1.1-7]	
B.23	Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314][326 IAC 1-1-6]	
<b>SECTION C</b>	<b>SOURCE OPERATION CONDITIONS.....</b>	<b>27</b>
	<b>Emission Limitations and Standards [326 IAC 2-8-4(1)] .....</b>	<b>27</b>
C.1	Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]	
C.2	Overall Source Limit [326 IAC 2-8]	
C.3	Opacity [326 IAC 5-1]	
C.4	Open Burning [326 IAC 4-1][IC 13-17-9]	
C.5	Incineration [326 IAC 4-2][326 IAC 9-1-2]	
C.6	Fugitive Dust Emissions [326 IAC 6-4]	
C.7	Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M]	
	<b>Testing Requirements [326 IAC 2-8-4(3)].....</b>	<b>29</b>
C.8	Performance Testing [326 IAC 3-6]	
	<b>Compliance Requirements [326 IAC 2-1.1-11] .....</b>	<b>30</b>
C.9	Compliance Requirements [326 IAC 2-1.1-11]	

DRAFT

<b>Compliance Monitoring Requirements [326 IAC 2-8-4(1)][326 IAC 2-8-5(a)(1)]</b>	<b>30</b>
C.10 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]	
C.11 Instrument Specifications [326 IAC 2-1.1-11][326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]	
<b>Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]</b>	<b>31</b>
C.12 Risk Management Plan [326 IAC 2-8-4][40 CFR 68]	
C.13 Response to Excursions or Exceedances [326 IAC 2-8-4][326 IAC 2-8-5]	
C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]	
<b>Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]</b>	<b>32</b>
C.15 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]	
C.16 General Reporting Requirements [326 IAC 2-8-4(3)(C)][326 IAC 2-1.1-11]	
<b>Stratospheric Ozone Protection</b>	<b>33</b>
C.17 Compliance with 40 CFR 82 and 326 IAC 22-1	
<b>SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS</b>	<b>34</b>
<b>Emission Limitations and Standards [326 IAC 2-8-4(1)]</b>	<b>37</b>
D.1.1 FESOP Limits [326 IAC 2-8-4][326 IAC 2-4.1][326 IAC 2-2][40 CFR 63]	
D.1.2 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]	
D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]	
<b>Compliance Determination Requirements [326 IAC 2-8-4(1)]</b>	<b>38</b>
D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-4][326 IAC 8-1-2(a)]	
<b>Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]</b>	<b>38</b>
D.1.5 Record Keeping Requirements	
D.1.6 Reporting Requirements	
<b>SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS</b>	<b>40</b>
<b>Emission Limitations and Standards [326 IAC 2-8-4(1)]</b>	<b>42</b>
D.2.1 Preventive Maintenance Plan [326 IAC 2-8-4(9)]	
<b>Compliance Determination Requirements [326 IAC 2-8-4(1)]</b>	<b>42</b>
D.2.2 Particulate Control	
<b>Compliance Monitoring Requirements [326 IAC 2-8-4(1)][326 IAC 2-8-5(a)(1)]</b>	<b>43</b>
D.2.3 Baghouse Inspections	
D.2.4 Broken or Failed Bag Detection - Baghouse	
<b>Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]</b>	<b>43</b>
D.2.5 Record Keeping Requirements	
<b>CERTIFICATION</b>	<b>44</b>
<b>EMERGENCY OCCURRENCE REPORT</b>	<b>45</b>
<b>FESOP Quarterly Report</b>	<b>47</b>
<b>FESOP Quarterly Report</b>	<b>48</b>
<b>FESOP Quarterly Report</b>	<b>49</b>
<b>FESOP Quarterly Report</b>	<b>50</b>
<b>FESOP Quarterly Report</b>	<b>51</b>
<b>FESOP Quarterly Report</b>	<b>52</b>



DRAFT

## SECTION A SOURCE SUMMARY

This permit 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 through A.4 is descriptive information and does not constitute enforceable conditions. However, the Permittee 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 Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

---

The Permittee owns and operates a stationary non-motorized travel trailer manufacturing plant.

Source Address(es):	1001 All Pro Drive, Elkhart, IN 46514 2944 Dexter Drive, Elkhart, IN 46514 1140 D.I. Drive, Elkhart, IN 46514 1111 All Pro Drive, Elkhart, IN 46514 2900 Dexter Drive, Elkhart, IN 46514 1110 C.R. 6 West, Elkhart, IN 46514 1110 D.I Drive, Elkhart, IN 46514 2950 Paul Drive, Elkhart, IN 46514 2824 Paul Drive, Elkhart, IN 46514 2929 Gateway Drive, Elkhart, IN 46514 2901 Dexter Drive, Elkhart, IN 46514
General Source Phone Number:	(574) 262-5992
SIC Code:	3792 (Travel Trailers and Campers)
County Location:	Elkhart
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

### A.2 Source Definition [326 IAC 2-8-1][326 IAC 2-7-1(22)]

---

This non-motorized travel trailer manufacturing source consists of fourteen (14) plants located at eleven (11) addresses:

- (1) Plants 2, 7A, and 7B (Assembly) are located at 1001 All Pro Drive, Elkhart, IN 46514;
- (2) Plant 3 (Maintenance) is located at 2944 Dexter Drive, Elkhart, IN 46514;
- (3) Plant 11 (Sidewall Lamination) is located at 1140 D.I. Drive, Elkhart, IN 46514;
- (4) Plant 12 (Cabinet and Molding) is located at 1111 All Pro Drive, Elkhart, IN 46514;
- (5) Plant 14 and Plant 5 (Returns/Service) are located at 2900 Dexter Drive, Elkhart, IN 46514;
- (6) Plant 17 and 18 (Assembly) are located at 1110 CR 6 West, Elkhart, IN 46514;
- (7) Plant 19 (Small Parts Lamination) 1110 D.I Drive, Elkhart, IN 46514

DRAFT

- (8) Plant 21(Assembly) is located at 2950 Paul Drive, Elkhart, IN 46514;
- (9) Plant 22(Assembly) is located at 2824 Paul Drive, Elkhart, IN 46514;
- (10) Plants 69A and 69B (Assembly) are located at 2929 Gateway Drive, Elkhart, IN 46514.
- (11) Plant 6 (Customer Service) is located at 2901 Dexter Drive, Elkhart, IN 46514

Since the fourteen (14) plants are located on contiguous or adjacent properties, or within two (2) miles of each other, belong to the same industrial grouping, and are under common control of the same entity, they will be considered one (1) source, effective from the date of issuance of this New Source Construction and FESOP Renewal.

### A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

#### **Plant 2 (1001 All Pro Drive, Elkhart, IN 46514)**

- (a) One (1) travel trailer assembly line, identified as Plant 2, constructed in 2005, approved in 2016 for modification, with a maximum capacity of 1.5 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:
  - (1) One (1) chassis preparation operation, identified as CP2, applying a rubberized undercoating to metal substrates via brush coating.
  - (2) One (1) assembly line operation, identified as ALO2, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
  - (3) One (1) touch-up paint operation, identified as TP2, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.
  - (4) One (1) final finish operation, identified as FF2, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.
- (b) One (1) cabinet and molding assembly operation, identified as WW2, constructed in 2005, controlled by integral baghouse 2DC-01, exhausting within the building, each with a maximum throughput rate of 400 lbs/hr and consisting of the following:
  - (1) One (1) PVC chop saw, identified as 2CS1, constructed in 2006, with a maximum capacity of 10 cuts per hour.
  - (2) Two (2) aluminum chop saws, identified as 2CS2 and 2CS3, constructed in 2006, with a combined maximum capacity of 10 cuts per hour.
  - (3) Four (4) wood chop saws, identified as 2CS4 through 2CS7, constructed in 2006, with a combined maximum capacity of 20 cuts per hour.
  - (4) Two (2) drill presses, identified as 2DP1 and 2DP2, constructed in 2006, with a combined maximum capacity of 5 pieces per hour.
  - (5) Six (6) hand routers, identified as 2HR1 through 2HR6, constructed in 2006, with

DRAFT

a combined maximum capacity of 120 feet per hour.

**Plant 7A / 7B (1001 All Pro Drive, Elkhart, IN 46514)**

- (c) One (1) travel trailer assembly line, identified as Plant 7A, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 2.75 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:
  - (1) One (1) chassis preparation operation, identified as CP7A, applying a rubberized undercoating to metal substrates via brush coating.
  - (2) One (1) assembly line operation, identified as ALO7A, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
  - (3) One (1) touch-up paint operation, identified as TP7A, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.
  - (4) One (1) final finish operation, identified as FF7A, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.
- (d) One (1) cabinet and molding assembly operation, identified as WW7A, constructed in 2011, controlled by integral baghouse 7ADC-01, exhausting within the building, each with a maximum throughput rate of 400 lbs/hr and consisting of the following:
  - (1) One (1) PVC chop saw, identified as 7ACS1, constructed in 2011, with a maximum capacity of 10 cuts per hour.
  - (2) Two (2) aluminum chop saws, identified as 7ACS2 and 7ACS-3, constructed in 2011, with a combined maximum capacity of 10 cuts per hour.
  - (3) Four (4) wood chop saws, identified as 7ACS4 through 7ACS8, constructed in 2011, with a combined maximum capacity of 20 cuts per hour.
  - (4) Two (2) drill presses, identified as 7ADP1 and 7ADP2, constructed in 2011, with a combined maximum capacity of 5 pieces per hour.
  - (5) Six (6) hand routers, identified as 7AHR1 through 7AHR6, constructed in 2011, with a combined maximum capacity of 120 feet per hour.
- (e) One (1) travel trailer assembly line, identified as Plant 7B, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 2.75 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:
  - (1) One (1) chassis preparation operation, identified as CP7B, applying a rubberized undercoating to metal substrates via brush coating.
  - (2) One (1) assembly line operation, identified as ALO7B, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
  - (3) One (1) touch-up paint operation, identified as TP7B, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.

DRAFT

- (4) One (1) final finish operation, identified as FF7B, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.
- (f) One (1) cabinet and molding assembly operation, identified as WW7B, constructed in 2011, controlled by integral baghouse 7BDC-01, exhausting within the building, each with a maximum throughput rate of 400 lbs/hr and consisting of the following:
  - (1) One (1) PVC chop saw, identified as 7BCS1, constructed in 2011, with a maximum capacity of 10 cuts per hour.
  - (2) Two (2) aluminum chop saws, identified as 7BCS2 and 7BCS-3, constructed in 2011, with a combined maximum capacity of 10 cuts per hour.
  - (3) Four (4) wood chop saws, identified as 7BCS4 through 7BCS8, constructed in 2011, with a combined maximum capacity of 20 cuts per hour.
  - (4) Two (2) drill presses, identified as 7BDP1 and 7BDP2, constructed in 2011, with a combined maximum capacity of 5 pieces per hour.
  - (5) Six (6) hand routers, identified as 7BHR1 through 7BHR6, constructed in 2011, with a combined maximum capacity of 120 feet per hour.

**Plant 12 (1111 All Pro Drive, Elkhart, IN 46514)**

- (g) One (1) cabinet and molding assembly operation, identified as WW12, approved for construction in 2011, and consisting of the following:
  - (1) Two (2) 6 inch edge sanders, each with a maximum capacity of 150 lbs per hour, controlled by integral baghouse 12DC-06, and exhausting within the building.
  - (2) Four (4) 12 inch chop saws, each with a maximum capacity of 50 lbs per hour, controlled by integral baghouse 12DC-01, and exhausting within the building.
  - (3) One (1) 10 inch band saw, with a maximum capacity of 200 lbs per hour, controlled by integral baghouse 12DC-01, and exhausting within the building.
  - (4) Two (2) 12 inch table saws, each with a maximum capacity of 100 lbs per hour, controlled by integral baghouse 12DC-02, and exhausting within the building.
  - (5) One (1) panel saw, with a maximum capacity of 200 lbs per hour, controlled by integral baghouse 12DC-02, and exhausting within the building.
  - (6) One (1) CNC router, with a maximum capacity of 600 lbs per hour, controlled by integral baghouse 12DC-03, and exhausting within the building.
  - (7) One (1) CNC router, with a maximum capacity of 600 lbs per hour, controlled by integral baghouse 12DC-04, and exhausting within the building.
  - (8) One (1) CNC router, identified as CNC3, approved for construction in 2013, with a maximum capacity of 600 lbs per hour, equipped with an integral baghouse

DRAFT

12DC-05, and exhausting within the building.

**Plant 17 / 18 (1110 CR 6 West, Elkhart, IN 46514)**

- (h) One (1) travel trailer assembly line, identified as Plant 17, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 0.5 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:
  - (1) One (1) chassis preparation operation, identified as CP17, applying a rubberized undercoating to metal substrates via brush coating.
  - (2) One (1) assembly line operation, identified as ALO17, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
  - (3) One (1) touch-up paint operation, identified as TP17, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.
  - (4) One (1) final finish operation, identified as FF17, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.
- (i) One (1) travel trailer assembly line, identified as Plant 18, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 0.5 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:
  - (1) One (1) chassis preparation operation, identified as CP18, applying a rubberized undercoating to metal substrates via brush coating.
  - (2) One (1) assembly line operation, identified as ALO18, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
  - (3) One (1) touch-up paint operation, identified as TP18, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.
  - (4) One (1) final finish operation, identified as FF18, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.

**Plants 21 / 22 (2950 Paul Drive & 2824 Paul Drive, Elkhart, IN 46514)**

- (j) One (1) travel trailer assembly line, identified as Plant 21, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 2.5 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:
  - (1) One (1) chassis preparation operation, identified as CP21, applying a rubberized undercoating to metal substrates via brush coating.
  - (2) One (1) assembly line operation, identified as ALO21, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
  - (3) One (1) touch-up paint operation, identified as TP21, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.

DRAFT

- (4) One (1) final finish operation, identified as FF21, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.
- (k) One (1) travel trailer assembly line, identified as Plant 22, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 2.5 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:
  - (1) One (1) chassis preparation operation, identified as CP22, applying a rubberized undercoating to metal substrates via brush coating.
  - (2) One (1) assembly line operation, identified as ALO22, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
  - (3) One (1) touch-up paint operation, identified as TP22, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.
  - (4) One (1) final finish operation, identified as FF22, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.
- (l) One (1) cabinet and molding assembly operation, identified as WW21/22, constructed in 2011, controlled by integral baghouse 21DC-01, exhausting within the building, each with a maximum throughput rate of 750 lbs/hr and consisting of the following:
  - (1) One (1) PVC chop saw, identified as 21CS1, constructed in 2011, with a maximum capacity of 10 cuts per hour.
  - (2) Three (3) table saws, identified as 21TS1 through 21TS3, constructed in 2011, with a combined maximum capacity of 10 cuts per hour.
  - (3) Four (4) wood chop saws, identified as 21CS2 through 21CS5, constructed in 2011, with a combined maximum capacity of 8 cuts per hour.
  - (4) One (1) drill press, identified as 21DP1, constructed in 2011, with a combined maximum capacity of 2.5 pieces per hour.
  - (5) Four (4) hand routers, identified as 21HR1 through 21HR4, constructed in 2011, with a combined maximum capacity of 80 feet per hour.

**Plant 69A / 69B (2929 Gateway Drive, Elkhart, IN 46514)**

- (m) One (1) travel trailer assembly line, identified as Plant 69A, constructed in 2011, with a maximum capacity of 2.0 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:
  - (1) One (1) chassis preparation operation, identified as CP69A, applying a rubberized undercoating to metal substrates via brush coating.
  - (2) One (1) assembly line operation, identified as ALO69A, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.

DRAFT

- (3) One (1) touch-up paint operation, identified as TP69A, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.
- (4) One (1) final finish operation, identified as FF69A, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.
- (n) One (1) travel trailer assembly line, identified as Plant 69B, constructed in 2011, with a maximum capacity of 2.0 units per hour, exhausting within the building, and consisting of the following:
  - (1) One (1) chassis preparation operation, identified as CP69B, applying a rubberized undercoating to metal substrates via brush coating.
  - (2) One (1) assembly line operation, identified as ALO69B, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
  - (3) One (1) touch-up paint operation, identified as TP69B, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.
  - (4) One (1) final finish operation, identified as FF69B, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.
- (o) One (1) cabinet and molding assembly operation, identified as WW69A/69B, constructed in 2011, controlled by integral baghouse 69DC-01, exhausting within the building, each with a maximum throughput rate of 400 lbs/hr and consisting of the following:
  - (1) One (1) PVC chop saw, identified as 69CS1, constructed in 2011, with a maximum capacity of 10 cuts per hour.
  - (2) Three (3) table saws, identified as 69TS1 through 69TS3, constructed in 2011, with a combined maximum capacity of 10 cuts per hour.
  - (3) Seven (7) wood chop saws, identified as 69CS2 through 69CS8, constructed in 2011, with a combined maximum capacity of 20 cuts per hour.
  - (4) Two (2) drill presses, identified as 69DP1 and 69DP2, constructed in 2011, with a combined maximum capacity of 5 pieces per hour.
  - (5) Four (4) hand routers, identified as 69HR1 through 69HR4, constructed in 2011, with a combined maximum capacity of 80 feet per hour.

A.4 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities:

**Plant 2 (1001 All Pro Drive, Elkhart, IN 46514)**

- (a) One (1) welding and cutting operation, identified as WC2, constructed in 2007, consisting of:

DRAFT

- (1) One (1) metal inert gas (MIG) welding station, with a maximum electrode usage of 1.00 lbs/hr (Wire Type E70S);
  - (2) One (1) stick welding station, with a maximum electrode usage of 0.50 lbs/hr (E5154 Electrode); and
  - (3) One (1) oxyacetylene/electric arc cutting station, cutting a maximum metal thickness of 0.75 inches and a maximum metal cutting rate of 12 inches per minute.
- (b) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
- (1) Two (2) forced air furnaces, identified as 2H-01 and 2H-02, each with a maximum rated capacity of 1.30 MMBtu/hr; and
  - (2) Two (2) forced air furnaces, identified as 2H-03 and 2H-04, each with a maximum rated capacity of 0.09 MMBtu/hr.

**Plant 3 (2944 Dexter Drive, Elkhart, IN 46514)**

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
- (1) Seven (7) tube heaters, identified as 3H-01 through 3H-07, each with a maximum rated capacity of 0.35 MMBtu/hr;
  - (2) One (1) tube heater, identified as 3H-08, with a maximum rated capacity of 0.10 MMBtu/hr; and
  - (3) One (1) forced air furnace, identified as 3H-09, with a maximum rated capacity of 0.08 MMBtu/hr.

**Plant 6 (2901 Dexter Drive, Elkhart, IN 46514)**

- (a) Two (2) touch-up paint line operations, identified as Plant 6, approved for construction in 2016, with a maximum capacity of 0.25 units per hour, each, and uses less than five (5) gallons of coating per day, each, applying paint to metal substrates, utilizing no control devices, and exhausting within the building.
- (b) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
- (1) One (1) forced air furnace, identified as 6H-01, with a maximum rated capacity of 0.5 MMBtu/hr.
  - (2) Two (2) thermo cyclers, identified as 6H-02 and 6H-03, each with a maximum rated capacity of 0.250 MMBtu/hr, each;
  - (3) One (1) thermo cycler, identified as 6H-04, with a maximum rated capacity of 0.150 MMBtu/hr;

DRAFT

**Plant 7A / 7B (1001 All Pro Drive, Elkhart, IN 46514)**

- (a) One (1) welding and cutting operation, identified as WC7A/7B, approved for construction in 2011, consisting of:
  - (1) One (1) metal inert gas (MIG) welding station, with a maximum electrode usage of 1.00 lbs/hr (Wire Type E70S);
  - (2) One (1) stick welding station, with a maximum electrode usage of 0.50 lbs/hr (E5154 Electrode); and
  - (3) One (1) oxyacetylene/electric arc cutting station, cutting a maximum metal thickness of 0.75 inches and a maximum metal cutting rate of 12 inches per minute.
- (b) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
  - (1) Two (2) forced air furnaces, identified as 7AH-01 and 7AH-02, each with a maximum rated capacity of 0.464 MMBtu/hr; and
  - (2) Two (2) forced air furnaces, identified as 7AH-03 and 7AH-04, each with a maximum rated capacity of 0.09 MMBtu/hr.

**Plant 11 (1140 D.I. Drive, Elkhart, IN 46514)**

- (a) One (1) sidewall lamination operation, identified as SLO11, applying adhesives to wood and plastic substrates via roll coating, utilizing no control devices, consisting of the two operations in series:
  - (1) One (1) sidewall lamination operation, identified as SLO11A approved for construction in 2011, with a maximum capacity of 20 units per hour.
  - (2) One (1) sidewall lamination operation, identified as SLO11B, approved for construction in 2016, with a maximum capacity of 20 units per hour.
- (b) Eight (8) metal inert gas (MIG) welding stations, identified as WC11, approved for construction in 2011, each with a maximum electrode usage of 5.40 lbs/hr (Wire Type E70S).
- (c) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
  - (1) Twelve (12) tube heaters, identified as 11H-01 through 11H-12, each with a maximum rated capacity of 0.10 MMBtu/hr.

**Plant 12 (1111 All Pro Drive, Elkhart, IN 46514)**

- (a) One (1) manual sanding operation, identified as MPE12, approved for construction in 2011, consisting of one (1) downdraft sanding table, one (1) sidedraft table, and handheld sanders, with a maximum capacity of 200 feet per hour, utilizing no control devices, and exhausting within the building.

DRAFT

- (b) Nine (9) metal inert gas (MIG) welding stations, identified as WC12, approved for construction in 2011, each with a maximum electrode usage of 5.40 lbs/hr.
- (c) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
  - (1) Two (2) forced air furnace, identified as 12H-01 and 12H-02, with a maximum rated capacity of 0.08 MMBtu/hr;
  - (2) Two (2) forced air furnace, identified as 12H-03 and 12H-04, with a maximum rated capacity of 0.14 MMBtu/hr; and
  - (3) One (1) thermo cyclor, identified as 12H-05, each with a maximum rated capacity of 0.4 MMBtu/hr.

**Plant 14 (2900 Dexter Drive, Elkhart, IN 46514)**

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
  - (1) Two (2) forced air furnaces, identified as 14H-01 and 14H-02, each with a maximum rated capacity of 0.80 MMBtu/hr;
  - (2) Two (2) forced air furnaces, identified as 14H-03 and 14H-04, each with a maximum rated capacity of 0.14 MMBtu/hr; and
  - (3) One (1) thermo cyclor, identified as 14H-05, with a maximum rated capacity of 0.40 MMBtu/hr.

**Plant 5 (2900 Dexter Drive, Elkhart, IN 46514)**

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
  - (1) Two (2) forced air furnaces, identified as 5H-01 and 5H-02, each with a maximum rated capacity of 0.80 MMBtu/hr;
  - (2) Two (2) forced air furnaces, identified as 5H-03 and 5H-04, each with a maximum rated capacity of 0.14 MMBtu/hr; and
  - (3) One (1) thermo cyclor, identified as 5H-05, with a maximum rated capacity of 0.40 MMBtu/hr.

**Plant 17 / 18 (1110 CR 6 West, Elkhart, IN 46514)**

- (a) One (1) metal inert gas (MIG) welding station, identified as WC17/18 with a maximum electrode usage of 1.00 lbs/hr (Wire Type E70S).
- (b) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:

DRAFT

- (1) Four (4) forced air furnaces, identified as 17/18H-01 through 17/18H-04, each with a maximum rated capacity of 0.15 MMBtu/hr; and
- (c) One (1) PVC chop saw, identified as 17/18CS1, approved for construction in 2011, with a maximum capacity of 10 cuts per hour, utilizing no control device, and exhausting within the building.
- (d) One (1) table saw, identified as 17/18TS1, approved for construction in 2011, with a maximum capacity of 10 cuts per hour, utilizing no control devices, and exhausting within the building.
- (e) Four (4) wood chop saws, identified as 17/18CS2 through 17/18CS5, approved for construction in 2011, with a combined maximum capacity of 10 cuts per hour, utilizing no control devices, and exhausting within the building.
- (f) Four (4) hand routers, identified as 17/18HR1 through 17/18HR4, approved for construction in 2011, with a combined maximum capacity of 80 feet per hour, utilizing no control devices, and exhausting within the building.

**Plant 19 (1110 D.I Drive, Elkhart, IN 46514)**

- (a) One (1) hot melt lamination process, identified as SPL19, approved for construction in 2011, consisting of three (3) lines, with a maximum capacity of 20 units per hour, total, applying adhesives to wood and plastic substrates via roll coating, utilizing no control devices.
- (b) Eighteen (18) metal inert gas (MIG) welding stations, identified as WC19 with a maximum electrode usage of 1.00 lbs/hr (Wire Type E70S).
- (c) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
  - (1) Four (4) forced air furnaces, identified as 19H-01 through 19H-04, each with a maximum rated capacity of 0.114 MMBtu/hr;
  - (2) One (1) forced air furnace, identified as 19H-05, with a maximum rated capacity of 0.08 MMBtu/hr; and
  - (3) Three (3) thermo cyclers, identified as 19H-06 through 19H-08, each with a maximum rated capacity of 1.2 MMBtu/hr.

**Plant 21 and 22 (2950 Paul Drive & 2824 Paul Drive, Elkhart, IN 46514)**

- (a) One (1) welding and cutting operation, identified as WC21/22 approved for construction in 2011, consisting of:
  - (1) Two (2) metal inert gas (MIG) welding stations, each with a maximum electrode usage of 1.00 lbs/hr (Wire Type E70S); and
  - (2) One (1) oxyacetylene/electric arc cutting station, cutting a maximum metal thickness of 0.75 inches and a maximum metal cutting rate of 12 inches per minute.

DRAFT

- (b) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
  - (1) Twelve (12) radiant tube heaters, identified as 21/22H-01 through 21/22H-12, each with a maximum rated capacity of 0.08 MMBtu/hr; and
  - (2) Three (3) forced air furnaces, identified as 21/22H-13 through 21/22H-15, each with a maximum rated capacity of 0.06 MMBtu/hr.

**Plant 69A / 69B (2929 Gateway Drive, Elkhart, IN 46514)**

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
  - (1) Sixteen (16) radiant tube heaters, identified as 69H-01 through 69H-16, each with a maximum rated capacity of 0.14 MMBtu/hr;
  - (2) Two (2) forced air furnaces, identified as 69H-17 and 69H-18, each with a maximum rated capacity of 0.10 MMBtu/hr; and
  - (3) Two (2) forced air furnaces, identified as 69H-19 and 69H-20, each with a maximum rated capacity of 0.12 MMBtu/hr.
- (b) One (1) welding and cutting operation, identified as WC69A/69B approved for construction in 2011, consisting of:
  - (1) Four (4) metal inert gas (MIG) welding stations, each with a maximum electrode usage of 1.00 lbs/hr (Wire Type E70S); and
  - (2) One (1) oxyacetylene/electric arc cutting station, cutting a maximum metal thickness of 0.75 inches and a maximum metal cutting rate of 12 inches per minute.

**A.5 FESOP Applicability [326 IAC 2-8-2]**

---

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

DRAFT

## SECTION B GENERAL CONDITIONS

### B.1 Definitions [326 IAC 2-8-1]

---

Terms in this permit 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 2-7) shall prevail.

### B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

---

- (a) This permit, F039-29849-00621, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

### B.3 Term of Conditions [326 IAC 2-1.1-9.5]

---

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

### B.4 Enforceability [326 IAC 2-8-6][IC 13-17-12]

---

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

### B.5 Severability [326 IAC 2-8-4(4)]

---

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

---

This permit does not convey any property rights of any sort or any exclusive privilege.

### B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

---

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

DRAFT

B.8 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

- (a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:
- (1) it contains a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1), and
  - (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 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, Indiana 46204-2251
- (b) The annual compliance certification report required by this permit 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.
- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
  - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

DRAFT

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]**

---

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

**B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]**

---

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit 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 Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee 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 PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

The Permittee 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 Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

DRAFT

B.12 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ or Northern Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or

Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)

Facsimile Number: 317-233-6865

Northern Regional Office phone: (574) 245-4870; fax: (574) 245-4877.

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

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

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and



DRAFT

(2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this permit.

**B.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]**

---

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

**B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination**

**[326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]**

---

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.16 Permit Renewal [326 IAC 2-8-3(h)]**

---

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(42). The renewal application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

DRAFT

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
  - (2) 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.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) and (c) without a prior permit revision, if each of the following conditions is met:
- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;

DRAFT

- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b)(1) and (c). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b)(1) and (c).

- (b) Emission Trades [326 IAC 2-8-15(b)]  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(b).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(c)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.
- (d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

**B.19 Source Modification Requirement [326 IAC 2-8-11.1]**

---

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

DRAFT

B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

DRAFT

B.22 Annual Fee Payment [326 IAC 2-7-19][326 IAC 2-8-4(6)][326 IAC 2-8-16][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ no later than thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314][326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

DRAFT

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 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 permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

DRAFT

- (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.4 Open Burning [326 IAC 4-1][IC 13-17-9]

---

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2][326 IAC 9-1-2]

---

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

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

---

The Permittee 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).

C.7 Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M]

---

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

DRAFT

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 notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

### **Testing Requirements [326 IAC 2-8-4(3)]**

#### **C.8 Performance Testing [326 IAC 3-6]**

---

- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:  
  
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  
  
no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted

DRAFT

by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

### **Compliance Requirements [326 IAC 2-1.1-11]**

#### **C.9 Compliance Requirements [326 IAC 2-1.1-11]**

---

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

### **Compliance Monitoring Requirements [326 IAC 2-8-4(1)][326 IAC 2-8-5(a)(1)]**

#### **C.10 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]**

---

- (a) For new units:  
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.
- (b) For existing units:  
Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance to begin such monitoring. If, due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee 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

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

#### **C.11 Instrument Specifications [326 IAC 2-1.1-11][326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]**

---

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. The analog instrument shall be capable of measuring values outside of the normal range.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

DRAFT

### **Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

#### **C.12 Risk Management Plan [326 IAC 2-8-4][40 CFR 68]**

---

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

#### **C.13 Response to Excursions or Exceedances [326 IAC 2-8-4][326 IAC 2-8-5]**

---

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

- (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
  - (1) initial inspection and evaluation;
  - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
  - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
  - (1) monitoring results;
  - (2) review of operation and maintenance procedures and records; and/or
  - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall record the reasonable response steps taken.

#### **C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]**

---

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ

DRAFT

that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.

- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

#### **C.15 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]**

---

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following, where applicable:

- (AA) All calibration and maintenance records.
- (BB) All original strip chart recordings for continuous monitoring instrumentation.
- (CC) Copies of all reports required by the FESOP.

Records of required monitoring information include the following, where applicable:

- (AA) The date, place, as defined in this permit, and time of sampling or measurements.
- (BB) The dates analyses were performed.
- (CC) The company or entity that performed the analyses.
- (DD) The analytical techniques or methods used.
- (EE) The results of such analyses.
- (FF) The operating conditions as existing at the time of sampling or measurement.

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

#### **C.16 General Reporting Requirements [326 IAC 2-8-4(3)(C)][326 IAC 2-1.1-11]**

---

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by

DRAFT

an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

- (b) The address for report submittal is:

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

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit 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.
- (d) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

### **Stratospheric Ozone Protection**

#### **C.17 Compliance with 40 CFR 82 and 326 IAC 22-1**

---

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with applicable standards for recycling and emissions reduction.

DRAFT

## SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

#### **Plant 2 (1001 All Pro Drive, Elkhart, IN 46514)**

- (a) One (1) travel trailer assembly line, identified as Plant 2, constructed in 2005, approved in 2016 for modification, with a maximum capacity of 1.5 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:
- (1) One (1) chassis preparation operation, identified as CP2, applying a rubberized undercoating to metal substrates via brush coating.
  - (2) One (1) assembly line operation, identified as ALO2, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
  - (3) One (1) touch-up paint operation, identified as TP2, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.
  - (4) One (1) final finish operation, identified as FF2, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.

#### **Plant 7A / 7B (1001 All Pro Drive, Elkhart, IN 46514)**

- (c) One (1) travel trailer assembly line, identified as Plant 7A, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 2.75 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:
- (1) One (1) chassis preparation operation, identified as CP7A, applying a rubberized undercoating to metal substrates via brush coating.
  - (2) One (1) assembly line operation, identified as ALO7A, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
  - (3) One (1) touch-up paint operation, identified as TP7A, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.
  - (4) One (1) final finish operation, identified as FF7A, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.
- (e) One (1) travel trailer assembly line, identified as Plant 7B, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 2.75 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:
- (1) One (1) chassis preparation operation, identified as CP7B, applying a rubberized undercoating to metal substrates via brush coating.
  - (2) One (1) assembly line operation, identified as ALO7B, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
  - (3) One (1) touch-up paint operation, identified as TP7B, applying various coatings to

DRAFT

metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.

- (4) One (1) final finish operation, identified as FF7B, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.

**Plant 17 / 18 (1110 CR 6 West, Elkhart, IN 46514)**

- (h) One (1) travel trailer assembly line, identified as Plant 17, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 0.5 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:

- (1) One (1) chassis preparation operation, identified as CP17, applying a rubberized undercoating to metal substrates via brush coating.
- (2) One (1) assembly line operation, identified as ALO17, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
- (3) One (1) touch-up paint operation, identified as TP17, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.
- (4) One (1) final finish operation, identified as FF17, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.

- (i) One (1) travel trailer assembly line, identified as Plant 18, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 0.5 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:

- (1) One (1) chassis preparation operation, identified as CP18, applying a rubberized undercoating to metal substrates via brush coating.
- (2) One (1) assembly line operation, identified as ALO18, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
- (3) One (1) touch-up paint operation, identified as TP18, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.
- (4) One (1) final finish operation, identified as FF18, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.

**Plants 21 / 22 (2950 Paul Drive & 2824 Paul Drive, Elkhart, IN 46514)**

- (j) One (1) travel trailer assembly line, identified as Plant 21, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 2.5 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:

- (1) One (1) chassis preparation operation, identified as CP21, applying a rubberized undercoating to metal substrates via brush coating.
- (2) One (1) assembly line operation, identified as ALO21, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
- (3) One (1) touch-up paint operation, identified as TP21, applying various coatings to

DRAFT

metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.

- (4) One (1) final finish operation, identified as FF21, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.
- (k) One (1) travel trailer assembly line, identified as Plant 22, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 2.5 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:
- (1) One (1) chassis preparation operation, identified as CP22, applying a rubberized undercoating to metal substrates via brush coating.
  - (2) One (1) assembly line operation, identified as ALO22, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
  - (3) One (1) touch-up paint operation, identified as TP22, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.
  - (4) One (1) final finish operation, identified as FF22, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.

**Plant 69A / 69B (2929 Gateway Drive, Elkhart, IN 46514)**

- (m) One (1) travel trailer assembly line, identified as Plant 69A, constructed in 2011, with a maximum capacity of 2.0 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:
- (1) One (1) chassis preparation operation, identified as CP69A, applying a rubberized undercoating to metal substrates via brush coating.
  - (2) One (1) assembly line operation, identified as ALO69A, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
  - (3) One (1) touch-up paint operation, identified as TP69A, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.
  - (4) One (1) final finish operation, identified as FF69A, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.
- (n) One (1) travel trailer assembly line, identified as Plant 69B, constructed in 2011, with a maximum capacity of 2.0 units per hour, exhausting within the building, and consisting of the following:
- (1) One (1) chassis preparation operation, identified as CP69B, applying a rubberized undercoating to metal substrates via brush coating.
  - (2) One (1) assembly line operation, identified as ALO69B, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
  - (3) One (1) touch-up paint operation, identified as TP69B, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.

DRAFT

(4) One (1) final finish operation, identified as FF69B, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.

(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 2-8-4(1)]**

**D.1.1 FESOP Limits [326 IAC 2-8-4][326 IAC 2-4.1][326 IAC 2-2][40 CFR 63]**

Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)) not applicable, the Permittee shall comply with the following:

- (a) The total input of VOC to the emission units listed in the table below, including coatings, dilution solvents, and cleaning solvents, shall not exceed 98.75 tons per twelve (12) consecutive month period:
- (b) The total input of Hexane to the emission units listed in the table below, including coatings, dilution solvents, and cleaning solvents, shall be less than 9.74 tons per twelve (12) consecutive month period:
- (c) The total input of HAP to the emission units listed in the table below, including coatings, dilution solvents, and cleaning solvents, shall be less than twenty-three (23.0) tons per twelve (12) consecutive month period:

Plant ID	Emission Units	
Plant 2	CP2	TP2
	ALO2	FF2
Plant 7A	CP7A	TP7A
	ALO7A	FF7A
Plant 7B	CP7B	TP7B
	ALO7B	FF7B
Plant 17	CP17	TP17
	ALO17	FF17
Plant 18	CP18	TP18
	ALO18	FF18
Plant 21	CP21	TP21
	ALO21	FF21
Plant 22	CP22	TP22
	ALO22	FF22
Plant 69A	CP69A	TP69A
	ALO69A	FF69A
Plant 69B	CP69B	TP69B
	ALO69B	FF69B

Compliance with these limits, combined with the potential to emit VOC, any single HAP, and total HAPs from all other emission units at this source, shall limit the source-wide total potential to emit of VOC to less than one-hundred (100) tons per twelve (12) consecutive month period, any single HAP to less than ten (10) tons per twelve (12) consecutive month period, the total HAPs to less than twenty-five (25) tons per twelve (12) consecutive month period, and shall render the requirements of 326 IAC 2-7 (Part 70), 326 IAC 2-2 (PSD), and 326 IAC 2-4.1 (Major Sources of

DRAFT

Hazardous Air Pollutants (HAP)) not applicable, and this source is an area source of HAP emissions under Section 112 of the Clean Air Act (CAA).

**D.1.2 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]**

---

When coating a substrate not subject to the requirements of a rule under 326 IAC 8, in order to render the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable, the use of VOC, including coatings, dilution solvents, and cleaning solvents from Plant 2, Plant 7A, Plant 7B, Plant 21, Plant 22, Plant 69A, and Plant 69B, shall be limited to less than twenty-five (25.0) tons per twelve (12) consecutive month period, each, with compliance determined at the end of each month. Compliance with this limit shall render the requirements of 326 IAC 8-1-6 not applicable.

**D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

---

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

**Compliance Determination Requirements [326 IAC 2-8-4(1)]**

**D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-4][326 IAC 8-1-2(a)]**

---

Compliance with the VOC usage limitations contained in Conditions D.1.1 and D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets (or MSDS). IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

**D.1.5 Record Keeping Requirements**

---

- (a) To document the compliance status with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC and HAPs usage limits established in Conditions D.1.1 and D.1.2. Records necessary to demonstrate compliance shall be available within thirty (30) days of the end of each compliance period.
- (1) The VOC, Hexane, and total HAP content of each coating material and solvent used.
  - (2) The amount of coating material and solvent used on a monthly basis.
    - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
    - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
  - (3) The cleanup solvent usage for each month;
  - (4) The VOC, Hexane, and total HAP usage for each month; and
  - (5) The weight of VOC, Hexane, and total HAP emitted for each compliance period.



DRAFT

## SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

#### **Plant 2 (1001 All Pro Drive, Elkhart, IN 46514)**

- (b) One (1) cabinet and molding assembly operation, identified as WW2, constructed in 2005, controlled by integral baghouse 2DC-01, exhausting within the building, each with a maximum throughput rate of 400 lbs/hr and consisting of the following:
- (1) One (1) PVC chop saw, identified as 2CS1, constructed in 2006, with a maximum capacity of 10 cuts per hour.
  - (2) Two (2) aluminum chop saws, identified as 2CS2 and 2CS3, constructed in 2006, with a combined maximum capacity of 10 cuts per hour.
  - (3) Four (4) wood chop saws, identified as 2CS4 through 2CS7, constructed in 2006, with a combined maximum capacity of 20 cuts per hour.
  - (4) Two (2) drill presses, identified as 2DP1 and 2DP2, constructed in 2006, with a combined maximum capacity of 5 pieces per hour.
  - (5) Six (6) hand routers, identified as 2HR1 through 2HR6, constructed in 2006, with a combined maximum capacity of 120 feet per hour.

#### **Plant 7A / 7B (1001 All Pro Drive, Elkhart, IN 46514)**

- (d) One (1) cabinet and molding assembly operation, identified as WW7A, constructed in 2011, controlled by integral baghouse 7ADC-01, exhausting within the building, each with a maximum throughput rate of 400 lbs/hr and consisting of the following:
- (1) One (1) PVC chop saw, identified as 7ACS1, constructed in 2011, with a maximum capacity of 10 cuts per hour.
  - (2) Two (2) aluminum chop saws, identified as 7ACS2 and 7ACS-3, constructed in 2011, with a combined maximum capacity of 10 cuts per hour.
  - (3) Four (4) wood chop saws, identified as 7ACS4 through 7ACS8, constructed in 2011, with a combined maximum capacity of 20 cuts per hour.
  - (4) Two (2) drill presses, identified as 7ADP1 and 7ADP2, constructed in 2011, with a combined maximum capacity of 5 pieces per hour.
  - (5) Six (6) hand routers, identified as 7AHR1 through 7AHR6, constructed in 2011, with a combined maximum capacity of 120 feet per hour.
- (f) One (1) cabinet and molding assembly operation, identified as WW7B, constructed in 2011, controlled by integral baghouse 7BDC-01, exhausting within the building, each with a maximum throughput rate of 400 lbs/hr and consisting of the following:
- (1) One (1) PVC chop saw, identified as 7BCS1, constructed in 2011, with a maximum

DRAFT

capacity of 10 cuts per hour.

- (2) Two (2) aluminum chop saws, identified as 7BCS2 and 7BCS-3, constructed in 2011, with a combined maximum capacity of 10 cuts per hour.
- (3) Four (4) wood chop saws, identified as 7BCS4 through 7BCS8, constructed in 2011, with a combined maximum capacity of 20 cuts per hour.
- (4) Two (2) drill presses, identified as 7BDP1 and 7BDP2, constructed in 2011, with a combined maximum capacity of 5 pieces per hour.
- (5) Six (6) hand routers, identified as 7BHR1 through 7BHR6, constructed in 2011, with a combined maximum capacity of 120 feet per hour.

**Plant 12 (1111 All Pro Drive, Elkhart, IN 46514)**

- (g) One (1) cabinet and molding assembly operation, identified as WW12, approved for construction in 2011, and consisting of the following:
  - (1) Two (2) 6 inch edge sanders, each with a maximum capacity of 150 lbs per hour, controlled by integral baghouse 12DC-06, and exhausting within the building.
  - (2) Four (4) 12 inch chop saws, each with a maximum capacity of 50 lbs per hour, controlled by integral baghouse 12DC-01, and exhausting within the building.
  - (3) One (1) 10 inch band saw, with a maximum capacity of 200 lbs per hour, controlled by integral baghouse 12DC-01, and exhausting within the building.
  - (4) Two (2) 12 inch table saws, each with a maximum capacity of 100 lbs per hour, controlled by integral baghouse 12DC-02, and exhausting within the building.
  - (5) One (1) panel saw, with a maximum capacity of 200 lbs per hour, controlled by integral baghouse 12DC-02, and exhausting within the building.
  - (6) One (1) CNC router, with a maximum capacity of 600 lbs per hour, controlled by integral baghouse 12DC-03, and exhausting within the building.
  - (7) One (1) CNC router, with a maximum capacity of 600 lbs per hour, controlled by integral baghouse 12DC-04, and exhausting within the building.
  - (8) One (1) CNC router, identified as CNC3, approved for construction in 2013, with a maximum capacity of 600 lbs per hour, equipped with an integral baghouse 12DC-05, and exhausting within the building.

**Plants 21 / 22 (2950 Paul Drive & 2824 Paul Drive, Elkhart, IN 46514)**

- (i) One (1) cabinet and molding assembly operation, identified as WW21/22, constructed in 2011, controlled by integral baghouse 21DC-01, exhausting within the building, each with a maximum throughput rate of 750 lbs/hr and consisting of the following:
  - (1) One (1) PVC chop saw, identified as 21CS1, constructed in 2011, with a maximum capacity of 10 cuts per hour.

DRAFT

- (2) Three (3) table saws, identified as 21TS1 through 21TS3, constructed in 2011, with a combined maximum capacity of 10 cuts per hour.
- (3) Four (4) wood chop saws, identified as 21CS2 through 21CS5, constructed in 2011, with a combined maximum capacity of 8 cuts per hour.
- (4) One (1) drill press, identified as 21DP1, constructed in 2011, with a combined maximum capacity of 2.5 pieces per hour.
- (5) Four (4) hand routers, identified as 21HR1 through 21HR4, constructed in 2011, with a combined maximum capacity of 80 feet per hour.

**Plant 69A / 69B (2929 Gateway Drive, Elkhart, IN 46514)**

- (o) One (1) cabinet and molding assembly operation, identified as WW69A/69B, constructed in 2011, controlled by integral baghouse 69DC-01, exhausting within the building, each with a maximum throughput rate of 400 lbs/hr and consisting of the following:
  - (1) One (1) PVC chop saw, identified as 69CS1, constructed in 2011, with a maximum capacity of 10 cuts per hour.
  - (2) Three (3) table saws, identified as 69TS1 through 69TS3, constructed in 2011, with a combined maximum capacity of 10 cuts per hour.
  - (3) Seven (7) wood chop saws, identified as 69CS2 through 69CS8, constructed in 2011, with a combined maximum capacity of 20 cuts per hour.
  - (4) Two (2) drill presses, identified as 69DP1 and 69DP2, constructed in 2011, with a combined maximum capacity of 5 pieces per hour.
  - (5) Four (4) hand routers, identified as 69HR1 through 69HR4, constructed in 2011, with a combined maximum capacity of 80 feet per hour.

(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 2-8-4(1)]**

**D.2.1 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

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

**Compliance Determination Requirements [326 IAC 2-8-4(1)]**

**D.2.2 Particulate Control**

In order to assure the woodworking operations in WW2, WW7A, WW7B, WW12, WW21/22, and WW69A/69B are exempt from the requirements of 326 IAC 6-3-2, integral baghouses 2DC-01, 7ADC-01, 7BDC-02, 12DC-01, 12DC-02, 12DC-03, 12DC-04, 12DC-05, 12DC-06, 21DC-01, and 69DC-01 for particulate control shall be in operation and control emissions from the woodworking operations at all times the woodworking operations are in operation.



DRAFT

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: Heartland Recreational Vehicles, LLC  
Source Address: 1001 All Pro Drive, Elkhart, Indiana 46514  
FESOP Permit No.: F039-29849-00621

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify)\_\_\_\_\_
- Report (specify)\_\_\_\_\_
- Notification (specify)\_\_\_\_\_
- Affidavit (specify)\_\_\_\_\_
- Other (specify)\_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

DRAFT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
Phone: (317) 233-0178  
Fax: (317) 233-6865**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY OCCURRENCE REPORT**

Source Name: Heartland Recreational Vehicles, LLC  
Source Address: 1001 All Pro Drive, Elkhart, Indiana 46514  
FESOP Permit No.: F039-29849-00621

**This form consists of 2 pages**

**Page 1 of 2**

- This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) daytime business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
  - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-8-12

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

DRAFT

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

DRAFT

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

**FESOP Quarterly Report**

Source Name: Heartland Recreational Vehicles, LLC  
 Source Address: 1001 All Pro Drive, Elkhart, Indiana 46514  
 FESOP Permit No.: F039-29849-00621  
 Facilities:

Plant ID	Emission Units	
Plant 2	CP2	TP2
	ALO2	FF2
Plant 7A	CP7A	TP7A
	ALO7A	FF7A
Plant 7B	CP7B	TP7B
	ALO7B	FF7B
Plant 17	CP17	TP17
	ALO17	FF17
Plant 18	CP18	TP18
	ALO18	FF18
Plant 21	CP21	TP21
	ALO21	FF21
Plant 22	CP22	TP22
	ALO22	FF22
Plant 69A	CP69A	TP69A
	ALO69A	FF69A
Plant 69B	CP69B	TP69B
	ALO69B	FF69B

Parameter: Combined VOC Usage  
 Limit: Less than 98.75 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	VOC Usage (tons)	VOC Usage (tons)	VOC Usage (tons)
	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this month.
- Deviation/s occurred in this month.  
 Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
 Title/Position: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Phone: \_\_\_\_\_

DRAFT

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

**FESOP Quarterly Report**

Source Name: Heartland Recreational Vehicles, LLC  
 Source Address: 1001 All Pro Drive, Elkhart, Indiana 46514  
 FESOP Permit No.: F039-29849-00621  
 Facilities:

Plant ID	Emission Units	
Plant 2	CP2	TP2
	ALO2	FF2
Plant 7A	CP7A	TP7A
	ALO7A	FF7A
Plant 7B	CP7B	TP7B
	ALO7B	FF7B
Plant 17	CP17	TP17
	ALO17	FF17
Plant 18	CP18	TP18
	ALO18	FF18
Plant 21	CP21	TP21
	ALO21	FF21
Plant 22	CP22	TP22
	ALO22	FF22
Plant 69A	CP69A	TP69A
	ALO69A	FF69A
Plant 69B	CP69B	TP69B
	ALO69B	FF69B

Parameter: Combined Hexane  
 Limit: Less than 9.74 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Hexane HAP Usage (tons)	Hexane HAP Usage (tons)	Hexane HAP Usage (tons)
	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this month.
- Deviation/s occurred in this month.  
 Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
 Title/Position: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Phone: \_\_\_\_\_

DRAFT

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

**FESOP Quarterly Report**

Source Name: Heartland Recreational Vehicles, LLC  
 Source Address: 1001 All Pro Drive, Elkhart, Indiana 46514  
 FESOP Permit No.: F039-29849-00621  
 Facilities:

Plant ID	Emission Units	
Plant 2	CP2	TP2
	ALO2	FF2
Plant 7A	CP7A	TP7A
	ALO7A	FF7A
Plant 7B	CP7B	TP7B
	ALO7B	FF7B
Plant 17	CP17	TP17
	ALO17	FF17
Plant 18	CP18	TP18
	ALO18	FF18
Plant 21	CP21	TP21
	ALO21	FF21
Plant 22	CP22	TP22
	ALO22	FF22
Plant 69A	CP69A	TP69A
	ALO69A	FF69A
Plant 69B	CP69B	TP69B
	ALO69B	FF69B

Parameter: Combined Total HAPs  
 Limit: Less than twenty-three (23) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Total HAP Usage (tons)	Total HAP Usage (tons)	Total HAP Usage (tons)
	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this month.
- Deviation/s occurred in this month.  
 Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
 Title/Position: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Phone: \_\_\_\_\_

DRAFT

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

**FESOP Quarterly Report**

Source Name: Heartland Recreational Vehicles, LLC  
 Source Address: 1001 All Pro Drive, Elkhart, Indiana 46514  
 FESOP Permit No.: F039-29849-00621  
 Facilities:

Plant ID	Emission Units	
Plant 2	CP2	TP2
	ALO2	FF2

Parameter: VOC Usage  
 Limit: Less than twenty-five (25.0) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	VOC Usage (tons)	VOC Usage (tons)	VOC Usage (tons)
	This Month	Previous 11 Months	12 Month Total
	Plant 2	Plant 2	Plant 2

- No deviation occurred in this month.
- Deviation/s occurred in this month.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

DRAFT

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

**FESOP Quarterly Report**

Source Name: Heartland Recreational Vehicles, LLC  
 Source Address: 1001 All Pro Drive, Elkhart, Indiana 46514  
 FESOP Permit No.: F039-29849-00621  
 Facilities: Plant 7A and Plant 7B, each

Plant ID	Emission Units	
	Plant 7A	CP7A
ALO7A		FF7A
Plant 7B	CP7B	TP7B
	ALO7B	FF7B

Parameter: VOC Usage  
 Limit: Less than twenty-five (25.0) tons per twelve (12) consecutive month period, each, with compliance determined at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	VOC Usage (tons)		VOC Usage (tons)		VOC Usage (tons)	
	This Month		Previous 11 Months		12 Month Total	
	Plant 7A	Plant 7B	Plant 7A	Plant 7B	Plant 7A	Plant 7B

- No deviation occurred in this month.
- Deviation/s occurred in this month.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

DRAFT

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

**FESOP Quarterly Report**

Source Name: Heartland Recreational Vehicles, LLC  
 Source Address: 1001 All Pro Drive, Elkhart, Indiana 46514  
 FESOP Permit No.: F039-29849-00621  
 Facilities:

Plant ID	Emission Units	
Plant 21	CP21	TP21
	ALO21	FF21

Parameter: VOC Usage  
 Limit: Less than twenty-five (25.0) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	VOC Usage (tons)	VOC Usage (tons)	VOC Usage (tons)
	This Month	Previous 11 Months	12 Month Total
	Plant 21	Plant 21	Plant 21

- No deviation occurred in this month.
- Deviation/s occurred in this month.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

DRAFT

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

**FESOP Quarterly Report**

Source Name: Heartland Recreational Vehicles, LLC  
 Source Address: 1001 All Pro Drive, Elkhart, Indiana 46514  
 FESOP Permit No.: F039-29849-00621  
 Facilities:

Plant ID	Emission Units	
Plant 22	CP22	TP22
	ALO22	FF22

Parameter: VOC Usage  
 Limit: Less than twenty-five (25.0) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	VOC Usage (tons)	VOC Usage (tons)	VOC Usage (tons)
	This Month	Previous 11 Months	12 Month Total
	Plant 22	Plant 22	Plant 22

- No deviation occurred in this month.
- Deviation/s occurred in this month.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

DRAFT

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

**FESOP Quarterly Report**

Source Name: Heartland Recreational Vehicles, LLC  
 Source Address: 1001 All Pro Drive, Elkhart, Indiana 46514  
 FESOP Permit No.: F039-29849-00621  
 Facilities: Plant 69A and Plant 69B, each

Plant ID	Emission Units	
	Plant 69A	CP69A
ALO69A		FF69A
Plant 69B	CP69B	TP69B
	ALO69B	FF69B

Parameter: VOC Usage  
 Limit: Less than twenty-five (25.0) tons per twelve (12) consecutive month period, each, with compliance determined at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	VOC Usage (tons)		VOC Usage (tons)		VOC Usage (tons)	
	This Month		Previous 11 Months		12 Month Total	
	Plant 69A	Plant 69B	Plant 69A	Plant 69B	Plant 69A	Plant 69B

- No deviation occurred in this month.
- Deviation/s occurred in this month.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

DRAFT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH  
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Heartland Recreational Vehicles, LLC  
Source Address: 1001 All Pro Drive, Elkhart, Indiana 46514  
FESOP Permit No.: F039-29849-00621

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C- General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

DRAFT

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

Technical Support Document (TSD) for a Significant Permit Revision to a  
Federally Enforceable State Operating Permit (FESOP) (Renewal)

**Source Description and Location**

<b>Source Name:</b>	<b>Heartland Recreational Vehicles, LLC</b>
<b>Source Location:</b>	<b>1001 All Pro Drive, Elkhart, IN 46514 2944 Dexter Drive, Elkhart, IN 46514 1140 D.I. Drive, Elkhart, IN 46514 1111 All Pro Drive, Elkhart, IN 46514 2900 Dexter Drive, Elkhart, IN 46514 1110 C.R. 6 West, Elkhart, IN 46514 1110 D.I Drive, Elkhart, IN 46514 2950 Paul Drive, Elkhart, IN 46514 2824 Paul Drive, Elkhart, IN 46514 2929 Gateway Drive, Elkhart, IN 46514 2901 Dexter Drive, Elkhart, IN 46514</b>
<b>County:</b>	<b>Elkhart</b>
<b>SIC Code:</b>	<b>3792 (Travel Trailers and Campers)</b>
<b>Operation Permit No.:</b>	<b>F 039-29849-00621</b>
<b>Operation Permit Issuance Date:</b>	<b>March 16, 2011</b>
<b>Significant Permit Revision No.:</b>	<b>039-36439-00621</b>
<b>Permit Reviewer:</b>	<b>Thomas Olmstead</b>

On November 2, 2015, the Office of Air Quality (OAQ) received an application from Heartland Recreational Vehicles, LLC related to a modification to an existing stationary non-motorized travel trailer manufacturing plant.

**Source Definition**

This non-motorized travel trailer manufacturing source consists of fourteen (14) plants located at eleven (11) addresses:

- (1) Plants 2, 7A, and 7B (Assembly) are located at 1001 All Pro Drive, Elkhart, IN 46514;
- (2) Plant 3 (Maintenance) is located at 2944 Dexter Drive, Elkhart, IN 46514;
- (3) Plant 11 (Sidewall Lamination) is located at 1140 D.I. Drive, Elkhart, IN 46514;
- (4) Plant 12 (Cabinet and Molding) is located at 1111 All Pro Drive, Elkhart, IN 46514;
- (5) Plant 14 and Plant 5 (Returns/Service) are located at 2900 Dexter Drive, Elkhart, IN 46514;
- (6) Plant 17 and 18 (Assembly) are located at 1110 CR 6 West, Elkhart, IN 46514;
- (7) Plant 19 (Small Parts Lamination) 1110 D.I Drive, Elkhart, IN 46514
- (8) Plant 21(Assembly) is located at 2950 Paul Drive, Elkhart, IN 46514;
- (9) Plant 22(Assembly) is located at 2824 Paul Drive, Elkhart, IN 46514;
- (10) Plants 69A and 69B (Assembly) are located at 2929 Gateway Drive, Elkhart, IN 46514.

(11) Plant 6 (Customer Service) is located at 2901 Dexter Drive, Elkhart, IN 46514

In order to consider these plants as one single source, all three of the following criteria must be met:

- (1) The plants must have common ownership/control;
- (2) The plants must have the same two-digit major SIC code; and
- (3) The plants must be located on contiguous or adjacent properties.

These plants are located on adjacent properties, have the same SIC codes of 37 and are under common control, therefore they will be considered one (1) source, as defined by 326 IAC 2-7-1(22). This determination was initially made under FESOP No. F039-29849-00621, issued on March 16, 2011.

#### Existing Approvals

The source was issued FESOP Renewal No. 039-29849-00621 on March 16, 2011. The source has since received Administrative Amendment No. 039-33732-00621, issued on November 22, 2013.

#### County Attainment Status

The source is located in Elkhart County.

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O <sub>3</sub>	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard. <sup>1</sup>
PM <sub>2.5</sub>	Unclassifiable or attainment effective April 5, 2005, for the annual PM <sub>2.5</sub> standard.
PM <sub>2.5</sub>	Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM <sub>2.5</sub> standard.
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.
<sup>1</sup> Attainment effective October 18, 2000, for the 1-hour ozone standard for the South Bend-Elkhart area, including Elkhart County, and is a maintenance area for the 1-hour National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour standard was revoked effective June 15, 2005.	

- (a) **Ozone Standards**  
Volatile organic compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to ozone. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) **PM<sub>2.5</sub>**  
Elkhart County has been classified as attainment for PM<sub>2.5</sub>. Therefore, direct PM<sub>2.5</sub>, SO<sub>2</sub>, and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

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

**Fugitive Emissions**

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

**Status of the Existing Source**

The table below summarizes the potential to emit of the entire source, prior to the proposed revision, after consideration of all enforceable limits established in the effective permits:

This PTE table is from the Limited Emissions Table in Appendix A of 039-33732-00621, issued on November 22, 2013.

Process/ Emission Unit	Potential To Emit of the Entire Source Prior to Revision (tons/year)								
	PM	PM10*	PM2.5**	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Total HAPs	Worst Single HAP
Plant 2	2.64	2.70	2.70	0.01	1.22	99.00	1.02	4.49	9.90
Plant 3	0.52	0.62	0.62	0.01	1.68		1.41	0.33	
Plant 7A/7B	2.65	2.67	2.67	0.00	0.49		0.41	4.46	
Plant 11	0.75	0.78	0.78	0.00	0.53		0.44	0.46	
Plant 12	1.83	1.85	1.85	0.00	0.37		0.31	0.01	
Plant 14	0.01	0.03	0.03	0.00	0.02		0.30	0.01	
Plant 16	2.69	2.74	2.74	0.00	0.78		0.65	1.80	
Plant 17/18	1.38	1.48	1.48	0.01	1.66		1.40	0.86	
Plant 19	1.21	1.22	1.22	0.00	0.26		0.22	1.79	
Plants 21, 22, & 23	2.55	2.58	2.58	0.00	0.50		0.42	2.70	
Plant 69A/69B	5.38	5.45	5.45	0.01	1.17		0.99	7.11	
<b>Total PTE of Entire Source</b>	<b>21.60</b>	<b>22.12</b>	<b>22.12</b>	<b>0.05</b>	<b>8.68</b>	<b>99.00</b>	<b>7.57</b>	<b>24.02</b>	<b>9.90</b>
Title V Major Source Thresholds	-	100	100	100	100	100	100	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	-	-
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". **PM <sub>2.5</sub> listed is direct PM <sub>2.5</sub> . Note: PM, PM10, PM2.5 emissions from the woodworking operations were calculated after consideration of the controls based on the integral to the process determination.									

- (a) This existing source is not a major stationary source under PSD (326 IAC 2-2), because no PSD regulated pollutant, excluding GHGs, is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories as specified in 326 IAC 2-2-1(ff)(1).
- (b) This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the Permittee has accepted limits on HAPs emissions to less than ten (10) tons per year for any single HAP and has unlimited potential to emit less than twenty-five (25) tons per year of a

combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

<b>Description of Proposed Revision</b>
---

The Office of Air Quality (OAQ) has reviewed an application, submitted by Heartland Recreational Vehicles, LLC on November 2, 2015, relating to the:

- (1) Increase in production of travel trailers at Plant 2, Plant 7A / 7B, Plant 11, Plant 21, Plant 22, Plant 69A / 69B;
- (2) Reconfiguration of Plant 3 to a maintenance shop and the existing lamination process relocated to Plant 19;
- (3) Construction and operation of return and service center Plant 5 and customer service Plant 6;
- (4) Removal of Plant 16 and Plant 23; and
- (5) Construction and operation of welding and natural gas insignificant activities.

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

**Plant 2 (1001 All Pro Drive, Elkhart, IN 46514)**

- (a) One (1) travel trailer assembly line, identified as Plant 2, constructed in 2005, approved in 2016 for modification, with a maximum capacity of 1.5 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:
  - (1) One (1) chassis preparation operation, identified as CP2, applying a rubberized undercoating to metal substrates via brush coating.
  - (2) One (1) assembly line operation, identified as ALO2, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
  - (3) One (1) touch-up paint operation, identified as TP2, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.
  - (4) One (1) final finish operation, identified as FF2, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.

**Plant 7A / 7B (1001 All Pro Drive, Elkhart, IN 46514)**

- (a) One (1) travel trailer assembly line, identified as Plant 7A, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 2.75 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:
  - (1) One (1) chassis preparation operation, identified as CP7A, applying a rubberized undercoating to metal substrates via brush coating.
  - (2) One (1) assembly line operation, identified as ALO7A, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
  - (3) One (1) touch-up paint operation, identified as TP7A, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.

- (4) One (1) final finish operation, identified as FF7A, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.
- (b) One (1) travel trailer assembly line, identified as Plant 7B, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 2.75 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:
    - (1) One (1) chassis preparation operation, identified as CP7B, applying a rubberized undercoating to metal substrates via brush coating.
    - (2) One (1) assembly line operation, identified as ALO7B, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
    - (3) One (1) touch-up paint operation, identified as TP7B, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.
    - (4) One (1) final finish operation, identified as FF7B, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.

**Plants 21 / 22 (2950 Paul Drive & 2824 Paul Drive, Elkhart, IN 46514)**

- (a) One (1) travel trailer assembly line, identified as Plant 21, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 2.5 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:
  - (1) One (1) chassis preparation operation, identified as CP21, applying a rubberized undercoating to metal substrates via brush coating.
  - (2) One (1) assembly line operation, identified as ALO21, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
  - (3) One (1) touch-up paint operation, identified as TP21, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.
  - (4) One (1) final finish operation, identified as FF21, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.
- (b) One (1) travel trailer assembly line, identified as Plant 22, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 2.5 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:
  - (1) One (1) chassis preparation operation, identified as CP22, applying a rubberized undercoating to metal substrates via brush coating.
  - (2) One (1) assembly line operation, identified as ALO22, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
  - (3) One (1) touch-up paint operation, identified as TP22, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.
  - (4) One (1) final finish operation, identified as FF22, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.

coating.

**Plant 69A / 69B (2929 Gateway Drive, Elkhart, IN 46514)**

- (a) One (1) travel trailer assembly line, identified as Plant 69A, constructed in 2011, with a maximum capacity of 2.0 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:
  - (1) One (1) chassis preparation operation, identified as CP69A, applying a rubberized undercoating to metal substrates via brush coating.
  - (2) One (1) assembly line operation, identified as ALO69A, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
  - (3) One (1) touch-up paint operation, identified as TP69A, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.
  - (4) One (1) final finish operation, identified as FF69A, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.
- (b) One (1) travel trailer assembly line, identified as Plant 69B, constructed in 2011, with a maximum capacity of 2.0 units per hour, exhausting within the building, and consisting of the following:
  - (1) One (1) chassis preparation operation, identified as CP69B, applying a rubberized undercoating to metal substrates via brush coating.
  - (2) One (1) assembly line operation, identified as ALO69B, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.
  - (3) One (1) touch-up paint operation, identified as TP69B, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.
  - (4) One (1) final finish operation, identified as FF69B, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.

**Insignificant Activities**

**Plant 6 (2901 Dexter Drive, Elkhart, IN 46514)**

- (a) Two (2) touch-up paint line operations, identified as Plant 6, approved for construction in 2016, with a maximum capacity of 0.25 units per hour, each, and uses less than five (5) gallons of coating per day, each, applying paint to metal substrates, utilizing no control devices, and exhausting within the building.
- (b) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
  - (1) One (1) forced air furnace, identified as 6H-01, with a maximum rated capacity of 0.5 MMBtu/hr.
  - (2) Two (2) thermo cyclers, identified as 6H-02 and 6H-03, each with a maximum rated capacity of 0.250 MMBtu/hr, each;

- (3) One (1) thermo cyler, identified as 6H-04, with a maximum rated capacity of 0.150 MMBtu/hr;

**Plant 11 (1140 D.I. Drive, Elkhart, IN 46514)**

- (a) One (1) sidewall lamination operation, identified as SLO11, applying adhesives to wood and plastic substrates via roll coating, utilizing no control devices, consisting of the two operations in series:
  - (1) One (1) sidewall lamination operation, identified as SLO11A approved for construction in 2011, with a maximum capacity of 20 units per hour.
  - (2) One (1) sidewall lamination operation, identified as SLO11B, approved for construction in 2016, with a maximum capacity of 20 units per hour.
- (b) Eight (8) metal inert gas (MIG) welding stations, identified as WC11, approved for construction in 2011, each with a maximum electrode usage of 5.40 lbs/hr (Wire Type E70S).

**Plant 12 (1111 All Pro Drive, Elkhart, IN 46514)**

- (a) Nine (9) metal inert gas (MIG) welding stations, identified as WC12, approved for construction in 2011, each with a maximum electrode usage of 5.40 lbs/hr.
- (b) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
  - (1) Two (2) forced air furnace, identified as 12H-01 and 12H-02, with a maximum rated capacity of 0.08 MMBtu/hr;
  - (2) Two (2) forced air furnace, identified as 12H-03 and 12H-04, with a maximum rated capacity of 0.14 MMBtu/hr; and
  - (3) One (1) thermo cyler, identified as 12H-05, each with a maximum rated capacity of 0.4 MMBtu/hr.

**Plant 5 (2900 Dexter Drive, Elkhart, IN 46514)**

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
  - (1) Two (2) forced air furnaces, identified as 5H-01 and 5H-02, each with a maximum rated capacity of 0.80 MMBtu/hr;
  - (2) Two (2) forced air furnaces, identified as 5H-03 and 5H-04, each with a maximum rated capacity of 0.14 MMBtu/hr; and
  - (3) One (1) thermo cyler, identified as 5H-05, with a maximum rated capacity of 0.40 MMBtu/hr.

**Plant 19 (1110 D.I Drive, Elkhart, IN 46514)**

- (a) One (1) hot melt lamination process, identified as SPL19, approved for construction in 2011, consisting of three (3) lines, with a maximum capacity of 20 units per hour, total, applying adhesives to wood and plastic substrates via roll coating, utilizing no control devices.

- (b) Eighteen (18) metal inert gas (MIG) welding stations, identified as WC19 with a maximum electrode usage of 1.00 lbs/hr (Wire Type E70S).
- (c) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
  - (1) Four (4) forced air furnaces, identified as 19H-01 through 19H-04, each with a maximum rated capacity of 0.114 MMBtu/hr;
  - (2) One (1) forced air furnace, identified as 19H-05, with a maximum rated capacity of 0.08 MMBtu/hr; and
  - (3) Three (3) thermo cyclers, identified as 19H-06 through 19H-08, each with a maximum rated capacity of 1.2 MMBtu/hr.

**Plant 69A / 69B (2929 Gateway Drive, Elkhart, IN 46514)**

- (a) One (1) welding and cutting operation, identified as WC69A/69B approved for construction in 2011, consisting of:
  - (1) Four (4) metal inert gas (MIG) welding stations, each with a maximum electrode usage of 1.00 lbs/hr (Wire Type E70S); and
  - (2) One (1) oxyacetylene/electric arc cutting station, cutting a maximum metal thickness of 0.75 inches and a maximum metal cutting rate of 12 inches per minute.

In addition to the above modified units, numerous IA's will be moved from one plant to another. See Proposed Changes section of this TSD for details.

**Additionally, the following emission unit(s) and pollution control device(s) have been removed from the source:**

**Plant 16 (1330 Wade Drive, Elkhart, IN 46514)**

- (a) One (1) chassis preparation operation, identified as CP16, approved for construction in 2011, with a maximum capacity of 0.50 units per hour and uses less than five (5) gallons of coating per day, applying a rubberized undercoating to metal substrates, utilizing no control devices.
- (b) One (1) assembly line operation, identified as ALO16 approved for construction in 2011, with a maximum capacity of 0.50 units per hour, applying various coatings to metal, wood, fabric, and plastic substrates via flow coating, utilizing no control devices.
- (c) One (1) touch-up paint operation, identified as TP16, approved for construction in 2011, with a maximum capacity of 0.50 units per hour and uses less than five (5) gallons of coating per day, applying paint to metal substrates, utilizing no control devices.
- (d) One (1) final finish operation, identified as FF16, approved for construction in 2011, with a maximum capacity of 0.50 units per hour and uses less than five (5) gallons of coating per day, applying polish, cleaners, and markers to metal, plastic, and wood substrates, utilizing no control devices.
- (e) One (1) cabinet and molding assembly operation, identified as WW16, approved for construction in 2011, controlled by baghouse 16DC-01, exhausting within the building,

and consisting of multiple sanders, saws, and routers, each with a maximum throughput rate of 300 lbs/hr.

- (f) One (1) PVC chop saw, identified as 16CS1, approved for construction in 2011, with a maximum capacity of 10 cuts per hour, utilizing no control device, and exhausting within the building.
- (g) One (1) table router, identified as 16TR1, approved for construction in 2011, with a maximum capacity of 20 cuts per hour, utilizing no control devices, and exhausting within the building.
- (h) Four (4) wood chop saws, identified as 16CS2 through 16CS5, approved for construction in 2011, with a combined maximum capacity of 20 cuts per hour, utilizing no control devices, and exhausting within the building.
- (i) Two (2) drill presses, identified as 16DP1 and 16DP2, approved for construction in 2011, with a combined maximum capacity of 5 pieces per hour, utilizing no control devices, and exhausting within the building.
- (j) Four (4) hand routers, identified as 16HR1 through 16HR4, approved for construction in 2011, with a combined maximum capacity of 80 feet per hour, utilizing no control devices, and exhausting within the building.

**Plants 23 (2946 Jami Drive, Elkhart, IN 46514)**

- (a) One (1) chassis preparation operation, identified as CP23, approved for construction in 2011, with a maximum capacity of 0.75 units per hour and uses less than five (5) gallons of coating per day, applying rubberized undercoating to metal substrates, utilizing no control devices.
- (b) One (1) assembly line operation, identified as CP23, approved for construction in 2011, with a maximum capacity of 0.75 units per hour, applying various coatings to metal, wood, fabric, and plastic substrates via flow coating, utilizing no control devices.
- (c) One (1) touch-up paint operation, identified as CP23, approved for construction in 2011, with a maximum capacity of 0.75 units per hour and uses less than five (5) gallons of coating per day, applying paint to metal substrates, utilizing no control devices.
- (d) One (1) final finish operation, identified as FF23, approved for construction in 2011, with a maximum capacity of 0.75 units per hour and uses less than five (5) gallons of coating per day, applying polish, cleaners, and markers to metal, plastic, and wood substrates, utilizing no control devices.

<b>“Integral Part of the Process” Determination</b>
---

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

specify that these baghouses shall operate at all times when the woodworking operations are in operation.

**Enforcement Issues**

There are no pending enforcement actions related to this revision.

**Emission Calculations**

See Appendix A of this TSD for detailed emission calculations.

**Permit Level Determination – FESOP Revision**

The following table is used to determine the appropriate permit level under 326 IAC 2-8-11.1 Permit Revisions. This table reflects the PTE before controls of the proposed revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/ Emission Unit	PTE of Proposed Revision (tons/year)								
	PM	PM10	PM2.5	SO <sub>2</sub>	NOx	VOC	CO	Total HAPs	Worst Single HAP Hexane
<b>New Emission Units</b>									
Plant 6	0.01	0.01	0.01	--	--	0.11	--	0.03	0.00E+00
<b>Total New Emission Units</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>	--	--	<b>0.11</b>	--	<b>0.03</b>	<b>0.00E+00</b>
<b>PTE Increase Existing Units</b>									
Plant 2	0.00	0.00	0.00	--	--	2.94	--	0.50	0.58
Plant 7A/7B	0.00	0.00	0.00	--	--	70.25	--	13.71	11.94
Plant 11	0.00	0.00	0.00	--	--	0.00	--	--	--
Plant 17/18	0.00	0.00	0.00	--	--	7.93	--	1.53	1.37
Plants 21 & 22	0.04	0.04	0.04	--	--	70.73	--	13.83	11.99
Plant 69A/69B	0.00	0.00	0.00	--	--	31.69	--	6.10	5.49
<b>Total Existing Emission Units</b>	<b>0.04</b>	<b>0.04</b>	<b>0.04</b>	--	--	<b>183.54</b>	--	<b>35.67</b>	<b>31.37</b>
<b>Total PTE of Proposed Revision</b>	<b>0.05</b>	<b>0.05</b>	<b>0.05</b>	--	--	<b>183.65</b>	--	<b>35.71</b>	<b>31.37</b>
negl. = negligible									

Pursuant to 326 IAC 2-8-11.1(f)(1)(E), this FESOP is being revised through a FESOP Significant Permit Revision because the proposed revision is not an Administrative Amendment or Minor Permit revision and the proposed revision involves the construction of new and modified emission unit(s) with potential to emit greater than or equal to twenty-five (25) tons per year of Volatile Organic Compounds (VOC).

**PTE of the Entire Source After Issuance of the FESOP Revision**

The table below summarizes the potential to emit of the entire source reflecting adjustment of existing limits, with updated emissions shown as **bold** values and previous emissions shown as ~~strikethrough~~ values.

Process/ Emission Unit	Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)								
	PM	PM10*	PM2.5**	SO <sub>2</sub>	NOx	VOC	CO	Total HAPs	Worst Single HAP (Hexane)
Plant 2 Assembly Line <sup>3</sup>	<b>0.07</b> <del>2.64</del>	<b>0.07</b> <del>2.70</del>	<b>0.07</b> <del>2.70</del>	-- <del>0.01</del>	-- <del>1.22</del>	98.75 <sup>1</sup>	-- <del>1.02</del>	<b>23.00</b> <sup>2</sup>	9.74 <sup>1</sup>
Plant 3	<del>0.52</del>	<del>0.62</del>	<del>0.62</del>	<del>0.01</del>	<del>1.68</del>		<del>1.41</del>		
Plant 7A Assembly Line <sup>3,4</sup>	<b>0.13</b> <del>2.65</del>	<b>0.13</b> <del>2.67</del>	<b>0.13</b> <del>2.67</del>	-- <del>0.00</del>	-- <del>0.49</del>		-- <del>0.41</del>		
<b>Plant 7B Assembly Line</b> <sup>4</sup>	<b>0.13</b>	<b>0.13</b>	<b>0.13</b>	--	--		--		
Plant 14 <sup>5</sup>	<del>0.01</del>	<del>0.03</del>	<del>0.03</del>	<del>0.00</del>	<del>0.02</del>		<del>0.30</del>		
Plant 16	<del>2.69</del>	<del>2.74</del>	<del>2.74</del>	<del>0.00</del>	<del>0.78</del>		<del>0.65</del>		
Plant 17 Assembly Line <sup>6</sup>	<b>0.02</b> <del>1.38</del>	<b>0.02</b> <del>1.48</del>	<b>0.02</b> <del>1.48</del>	-- <del>0.01</del>	-- <del>1.66</del>		-- <del>1.40</del>		
<b>Plant 18 Assembly Line</b> <sup>6</sup>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	--	--		--		
Plant 21 Assembly Line <sup>3,7</sup>	<b>0.12</b> <del>2.55</del>	<b>0.12</b> <del>2.58</del>	<b>0.12</b> <del>2.58</del>	-- <del>0.00</del>	-- <del>0.50</del>		-- <del>0.42</del>		
<b>Plant 22 Assembly Line</b> <sup>7</sup>	<b>0.12</b>	<b>0.12</b>	<b>0.12</b>	--	--		--		
Plant 69A Assembly Line <sup>3,8</sup>	<b>0.09</b> <del>5.38</del>	<b>0.09</b> <del>5.45</del>	<b>0.09</b> <del>5.45</del>	-- <del>0.01</del>	-- <del>1.17</del>		-- <del>0.99</del>		
<b>Plant 69B Assembly Line</b> <sup>8</sup>	<b>0.09</b>	<b>0.09</b>	<b>0.09</b>	--	--	--			
<b>Plant 6 Touch-up Paint Operation Line 1</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	--	--	<b>0.06</b>	--	<b>0.02</b>	<b>0.00E+00</b>
<b>Plant 6 Touch-up Paint Operation Line 2</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	--	--	<b>0.06</b>	--	<b>0.02</b>	<b>0.00E+00</b>
Plant 11 Small Parts Lamination (SLO11A)	<b>0.00E+00</b> <del>0.75</del>	<b>0.00E+00</b> <del>0.78</del>	<b>0.00E+00</b> <del>0.78</del>	-- <del>0.00</del>	-- <del>0.53</del>	<b>2.92E-07</b>	-- <del>0.44</del>	-- <del>0.46</del>	--
<b>Plant 11 Small Parts Lamination (SLO11B)</b>	<b>0.00E+00</b>	<b>0.00E+00</b>	<b>0.00E+00</b>	--	--	<b>2.92E-07</b>	--	--	--
Plant 12 Miscellaneous Machining Equipment (MPE12) <sup>5</sup>	<b>0.16</b> <del>1.83</del>	<b>0.16</b> <del>1.85</del>	<b>0.16</b> <del>1.85</del>	-- <del>0.00</del>	-- <del>0.37</del>	--	-- <del>0.31</del>	-- <del>0.01</del>	--

Process/ Emission Unit	Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)								
	PM	PM10*	PM2.5**	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Total HAPs	Worst Single HAP (Hexane)
<b>Plant 17/18 Miscellaneous Machining Equipment (MPE17/18)</b>	<b>1.05E+00</b>	<b>1.05E+00</b>	<b>1.05E+00</b>	--	--	--	--	--	--
Plant 19 Small Parts Lamination (SPL19) <sup>3</sup>	<b>0.00E+00</b> 4.24	<b>0.00E+00</b> 4.22	<b>0.00E+00</b> 4.22	-- 0.00	-- 0.26	<b>3.90E-07</b>	-- 0.22	-- 4.79	--
<b>Source Cabinet and Molding Assembly<sup>9</sup></b>	<b>4.25</b>	<b>4.25</b>	<b>4.25</b>	--	--	--	--	--	--
<b>Source Natural Gas Combustion<sup>10</sup></b>	<b>0.19</b>	<b>0.74</b>	<b>0.74</b>	<b>0.06</b>	<b>9.80</b>	<b>0.54</b>	<b>8.23</b>	<b>0.18</b>	<b>0.18</b>
<b>Source Welding and Thermal Cutting<sup>11</sup></b>	<b>4.35</b>	<b>4.35</b>	<b>4.35</b>	--	--	--	--	<b>1.68</b>	--
<b>Total PTE of Entire Source</b>	<b>10.80</b> <del>21.60</del>	<b>11.36</b> <del>22.12</del>	<b>11.36</b> <del>22.12</del>	<b>0.06</b> <del>0.05</del>	<b>9.80</b> <del>8.68</del>	<b>99.40</b> <del>99.00</del>	<b>8.23</b> <del>7.57</del>	<b>24.90</b> <del>24.02</del>	<b>9.92</b> <del>9.90</del>
Title V Major Source Thresholds	-	100	100	100	100	100	100	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	-	-

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".

\*\* PM<sub>2.5</sub> listed is direct PM<sub>2.5</sub>.

<sup>1</sup> The previous VOC and single HAP limits for the existing units incorporate the new modifications.

<sup>2</sup> The source did not have Total HAP PTE above 25 tons/yr, nor did the source have a limit in the permit for Total HAP.

<sup>3</sup> Prior calculations included summed surface coating, welding, woodworking, and natural gas combustion. Prior woodworking was double counted in the cabinet and molding assembly.

<sup>4</sup> Plant 7 has two lines, A and B.

<sup>5</sup> Previously included natural gas combustion.

<sup>6</sup> Plant 17 has one line and Plant 18 has one line.

<sup>7</sup> Plant 21 has one line and Plant 22 has one line.

<sup>8</sup> Plant 69 has two lines, A and B.

<sup>9</sup> Source Cabinet and Molding Assembly consists of all of the baghouses located at the source.

<sup>10</sup> Source Natural Gas Combustion consists of all of the direct fired heaters located at the source.

<sup>11</sup> Source Welding and Thermal Cutting consists of all of the welding located at the source.

The table below summarizes the potential to emit of the entire source after issuance of this revision, reflecting all limits, of the emission units. (Note: the table below was generated from the above table, with bold text un-bolded and strikethrough text deleted).

Process/ Emission Unit	Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)								
	PM	PM10*	PM2.5**	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Total HAPs	Worst Single HAP (Hexane)

Process/ Emission Unit	Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)								
	PM	PM10*	PM2.5**	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Total HAPs	Worst Single HAP (Hexane)
Plant 2 Assembly Line	0.07	0.07	0.07	--	--	98.75	--	23.00	9.74
Plant 7A Assembly Line	0.13	0.13	0.13	--	--		--		
Plant 7B Assembly Line	0.13	0.13	0.13	--	--		--		
Plant 17 Assembly Line	0.02	0.02	0.02	--	--		--		
Plant 18 Assembly Line	0.02	0.02	0.02	--	--		--		
Plant 21 Assembly Line	0.12	0.12	0.12	--	--		--		
Plant 22 Assembly Line	0.12	0.12	0.12	--	--		--		
Plant 69A Assembly Line	0.09	0.09	0.09	--	--		--		
Plant 69B Assembly Line	0.09	0.09	0.09	--	--		--		
Plant 6 Touch-up Paint Operation Line 1	0.00	0.00	0.00	--	--	0.06	--	0.02	0.00E+00
Plant 6 Touch-up Paint Operation Line 2	0.00	0.00	0.00	--	--	0.06	--	0.02	0.00E+00
Plant 11 Small Parts Lamination (SLO11A)	0.00E+00	0.00E+00	0.00E+00	--	--	2.92E-07	--	--	--
Plant 11 Small Parts Lamination (SLO11B)	0.00E+00	0.00E+00	0.00E+00	--	--	2.92E-07	--	--	--
Plant 12 Miscellaneous Machining Equipment (MPE12)	0.16	0.16	0.16	--	--	--	--	--	--
Plant 17/18 Miscellaneous Machining Equipment (MPE17/18)	1.05E+00	1.05E+00	1.05E+00	--	--	--	--	--	--
Plant 19 Small Parts Lamination (SPL19)	0.00E+00	0.00E+00	0.00E+00	--	--	3.90E-07	--	--	--
Source Cabinet and Molding Assembly	4.25	4.25	4.25	--	--	--	--	--	--
Source Natural Gas Combustion	0.19	0.74	0.74	0.06	9.80	0.54	8.23	0.18	0.18

Process/ Emission Unit	Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)								
	PM	PM10*	PM2.5**	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Total HAPs	Worst Single HAP (Hexane)
Source Welding and Thermal Cutting	4.35	4.35	4.35	--	--	--	--	1.68	--
<b>Total PTE of Entire Source</b>	<b>10.80</b>	<b>11.36</b>	<b>11.36</b>	<b>0.06</b>	<b>9.80</b>	<b>99.40</b>	<b>8.23</b>	<b>24.90</b>	<b>9.92</b>
Title V Major Source Thresholds	-	100	100	100	100	100	100	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	-	-

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".  
 \*\* PM<sub>2.5</sub> listed is direct PM<sub>2.5</sub>.

(a) FESOP Status

This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants, HAPs and CO<sub>2</sub>e from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP).

(1) Criteria Pollutants

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), the source shall comply with the following:

- (A) The total input of VOC to the emission units listed in the table below, including coatings, dilution solvents, and cleaning solvents, shall not exceed 98.75 tons per twelve (12) consecutive month period.

Plant ID	Emission Units	
Plant 2	CP2	TP2
	ALO2	FF2
Plant 7A	CP7A	TP7A
	ALO7A	FF7A
Plant 7B	CP7B	TP7B
	ALO7B	FF7B
Plant 17	CP17	TP17
	ALO17	FF17
Plant 18	CP18	TP18
	ALO18	FF18
Plant 21	CP21	TP21
	ALO21	FF21
Plant 22	CP22	TP22
	ALO22	FF22
Plant 69A	CP69A	TP69A
	ALO69A	FF69A
Plant 69B	CP69B	TP69B
	ALO69B	FF69B

Compliance with these limits, combined with the potential to emit VOC from all other emission units at this source, shall limit the source-wide total potential to emit of VOC to less than 100 tons per twelve (12) consecutive month period, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

(2) HAPs

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), the source shall comply with the following:

- (A) The total input of Hexane to the emission units listed in the table below, including coatings, dilution solvents, and cleaning solvents, shall be less than 9.74 tons per twelve (12) consecutive month period:
- (B) The total input of HAP to the emission units listed in the table below, including coatings, dilution solvents, and cleaning solvents, shall be less than twenty-three (23) tons per twelve (12) consecutive month period.

Plant ID	Emission Units	
Plant 2	CP2 ALO2	TP2 FF2
Plant 7A	CP7A ALO7A	TP7A FF7A
Plant 7B	CP7B ALO7B	TP7B FF7B
Plant 17	CP17 ALO17	TP17 FF17
Plant 18	CP18 ALO18	TP18 FF18
Plant 21	CP21 ALO21	TP21 FF21
Plant 22	CP22 ALO22	TP22 FF22
Plant 69A	CP69A ALO69A	TP69A FF69A
Plant 69B	CP69B ALO69B	TP69B FF69B

Compliance with these limits, combined with the potential to emit HAP from all other emission units at this source, shall limit the source-wide total potential to emit of any single HAP to less than ten (10) tons per twelve (12) consecutive month period, total HAPs to less than twenty-five (25) tons per twelve (12) consecutive month period, and shall render the requirements of 326 IAC 2-7 (Part 70) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)) not applicable, and this source is an area source of HAP emissions under Section 112 of the Clean Air Act (CAA).

**Federal Rule Applicability Determination**

**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 for the source, since this source does not coat automobiles or light duty trucks.
- (b) The requirements of the New Source Performance Standard for Surface Coating of Metal Furniture, 40 CFR 60, Subpart EE (326 IAC 12), are not included for the source, since this source does not coat metal furniture.

**NESHAP:**

- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Automobiles and Light-Duty Trucks (40 CFR 63 Subpart IIII), are not included for the source, since this source does not coat automobiles or light duty trucks.
- (d) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Metal Cans (40 CFR 63 Subpart KKKK), are not included for the source, since this source does not coat metal cans as defined in §63.3561.
- (e) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products (40 CFR Part 63, Subpart MMMM) (326 IAC 20-80) are not included for the source, since this source is an area source of HAPs.
- (f) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Large Appliances (40 CFR 63 Subpart NNNN), are not included for the source, since this source does not coat large appliances as defined in §63.4181.
- (g) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Plastic Parts and Products (40 CFR 63 Subpart PPPP), are not included for the source, since this source is an area source of HAPs.
- (h) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Wood Building Products (40 CFR 63 Subpart QQQQ), are not included for the source, since this source does not coat wood building products as defined in §63.4781.
- (i) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Metal Furniture (40 CFR 63 Subpart RRRR), are not included for the source, since this source is an area source of HAPs.
- (j) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Metal Coil (40 CFR 63 Subpart SSSS), are not included for the source, since this source does not coat metal coil as defined in §63.5080.
- (k) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources (40 CFR 63 Subpart HHHHHH (6H)), are not included for the source, since this source does not perform spray application of coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd).

**Compliance Assurance Monitoring (CAM)**

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

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

- (a) 326 IAC 2-8-4 (FESOP)  
This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the

- provisions of 326 IAC 2-8 (FESOP). See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (b) 326 IAC 2-2 (Prevention of Significant Deterioration (PSD))  
This modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will be limited to less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (c) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))  
The unlimited potential to emit of HAPs from the modified unit(s) is greater than ten (10) tons per year for any single HAP and/or greater than twenty-five (25) tons per year of a combination of HAPs. However, the source shall limit the potential to emit HAPs from the modified unit(s) to less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, the proposed revision is not subject to the requirements of 326 IAC 2-4.1. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (d) 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.
- (e) 326 IAC 5-1 (Opacity Limitations)  
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
- (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (f) 326 IAC 6-2 (Particulate Matter Emission Limitations for Sources of Indirect Heating)  
The requirements of 326 IAC 6-2 are not included in the permit, because all of the insignificant natural gas-fired heaters located at the source are direct fired. Therefore, the requirements of 326 IAC 6-2 do not apply.
- (g) 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.
- (h) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)  
Due to this revision, 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.
- (i) 326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations)  
Pursuant to 326 IAC 8-2-2, all lines 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.

- (j) 326 IAC 8-2-6 (Metal furniture coating operations)  
The requirements of 326 IAC 8-2-6 are not applicable to this source, since this source does not perform surface coating of any furniture made of metal or any metal part that will be assembled with other metal, wood, fabric, plastic, or glass parts to form a furniture piece. All furniture and furniture components installed in the travel trailers are shipped to the source pre-manufactured and pre-coated.
- (k) 326 IAC 8-2-10 (Volatile Organic Compounds, Flat Wood Panels Manufacturing Operations)  
The requirements of 326 IAC 8-2-10 are not applicable to this source, since this source does not perform manufacturing of flat wood panels.
- (l) 326 IAC 8-2-11 (Volatile Organic Compounds, Fabric and Vinyl Coating)  
The requirements of 326 IAC 8-2-11 are not applicable to this source, since this source does not perform surface coating of fabric or vinyl as defined by 326 IAC 8-2-11(a).
- (m) 326 IAC 8-2-12 (Volatile Organic Compounds, Wood Furniture and Cabinet Coating)  
The requirements of 326 IAC 8-2-12 are not applicable to this source, since this source does not perform surface coating of wood furniture or cabinets. All wood furniture and wood furniture components installed in the travel trailers are shipped to the source pre-manufactured and pre-coated. Surface coating of wood at this source consists of surface coating of structural wood with adhesives, which is not subject to this rule.
- (n) 326 IAC 12 (New Source Performance Standards)  
See Federal Rule Applicability Section of this TSD.
- (o) 326 IAC 20 (Hazardous Air Pollutants)  
See Federal Rule Applicability Section of this TSD.

### **Assembly Operations**

- (p) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)  
IDEM, OAQ has determined that application of SP90 Big Sticky adhesive in RV assembly operations at this source, when using non-atomizing HVLP spray guns, does not have the potential to emit particulate emissions. This adhesive is applied as a sticky, stretchy, stringy, web-like material. Therefore, this adhesive operation does not meet the definition of "surface coating" under 326 IAC 6-3-1.5 and is not subject to the requirements of 326 IAC 6-3-2.

Pursuant to 326 IAC 6-3-1(b)(5-8)), surface coating using dip, roll, flow, or brush coating are exempt from 326 IAC 6-3-2. Pursuant to 326 IAC 6-3-1(b)(15) surface coating operations not exempt in 326 IAC 6-3-1(b)(5-8) that use less than five (5) gallons per day are exempt from 326 IAC 6-3-2. Pursuant to 326 IAC 6-3-1.5(5), "Surface coating" means the application of a solvent or waterbased coating in which the applicant emits or has the potential to emit particulate.

The requirements of 326 IAC 6-3-2 are not applicable to the assembly line operations in Plants 2, 6, 7A, 7B, 11, 17, 18, 19, 21, 22 69A, and 69B since the surface coatings operations not exempted under 326 IAC 6-3-1(b)(5-8) are applied in quantities of less than five gallons per day per line.

- (q) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)  
Plant 6, Plant 11, Plant 17, Plant 18 and Plant 19 are not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from each plant is less than twenty-five (25) tons per year.

The unlimited VOC potential emissions from Plant 2, Plant 7A, Plant 7B, Plant 21, Plant 22, Plant 69A, and Plant 69B is greater than twenty-five (25) tons per year. However, the source shall limit the VOC potential emissions from each of these plants to less than twenty-five (25) tons per year. Therefore, the proposed revision is not subject to the requirements of 326 IAC 8-1-6.

When coating a substrate not subject to the requirements of a rule under 326 IAC 8, in order to render the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable, the use of VOC, including coatings, dilution solvents, and cleaning solvents from Plant 2, Plant 7A, Plant 7B, Plant 21, Plant 22, Plant 69A, and Plant 69B, shall be limited to less than twenty-five (25.0) tons per twelve (12) consecutive month period, each, with compliance determined at the end of each month. Compliance with this limit shall render the requirements of 326 IAC 8-1-6 not applicable.

- (r) 326 IAC 8-2-9 (Miscellaneous metal and plastic coating operations)  
Pursuant to 326 IAC 8-2-9, the assembly line operations, identified as Plants 2, 6, 7A, 7B, 17, 18, 21, 22, 69A, and 69B, are exempt from the requirements of 326 IAC 8-2-9, because the surface coating operations were constructed after July 1, 1990 and have actual VOC emissions of less than fifteen (15) pounds of VOC per day, when coating metal.

### **Welding**

- (s) 326 IAC 6-3 (Particulate Emission Limitations, Work Practices, and Control Technologies)  
Pursuant to 326 IAC 6-3-1(b)(9) the metal inert gas (MIG) welding stations and manual stick welding stations located at the source, are exempt from the requirements of 326 IAC 6-3, because their potential to consume welding wire is less than six hundred twenty-five (625) pounds per day, each.

Pursuant to 326 IAC 6-3-1(b)(10) the oxyacetylene/electric arc cutting stations located at the source are exempt from the requirements of 326 IAC 6-3, because less than three thousand four hundred (3,400) inches per hour of stock one (1) inch thickness or less is cut.

### **Cabinet and Molding Assembly**

- (t) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)  
The potential to emit from each of the cabinet and molding assembly operation emission units is less than 0.551 pound per hour after control. Therefore, pursuant to 326 IAC 6-3-1(b)(14), the requirements of 326 IAC 6-3-2 do not apply.

The integral baghouses 2DC-01, 7ADC-01, 7BDC-02, 12DC-01, 12DC-02, 12DC-03, 12DC-04, 12DC-05, 12DC-06, 21DC-01, and 69DC-01 shall be in operation at all times to ensure the woodworking operations in WW2, WW7A, WW7B, WW12, WW21/22, and WW69A/69B are exempt from the requirements of 326 IAC 6-3-2.

### **Miscellaneous Machining**

- (u) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)  
The potential to emit from the Miscellaneous Machining PM Equipment (MPE17/18) and (MPE 12) is less than 0.551 pound per hour. Therefore, pursuant to 326 IAC 6-3-1(b)(14), the requirements of 326 IAC 6-3-2 do not apply.

<b>Compliance Determination, Monitoring and Testing Requirements</b>
--

- (a) Plant 2, Plant 7A, Plant 7B, Plant 17, Plant 18, Plant 21, Plant 22, Plant 69A, and Plant 69B have applicable compliance determination conditions as specified below:
- (1) Compliance with the VOC usage limitations shall be determined pursuant to 326

IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the “as supplied” and “as applied” VOC data sheets (or MSDS). IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

- (b) The Cabinet and Molding Assembly operations have applicable compliance determination conditions as specified below:
  - (1) In order to assure the woodworking operations in WW2, WW7A, WW7B, WW12, WW21/22, and WW69A/69B are exempt from the requirements of 326 IAC 6-3-2, integral baghouses 2DC-01, 7ADC-01, 7BDC-02, 12DC-01, 12DC-02, 12DC-03, 12DC-04, 12DC-05, 12DC-06, 21DC-01, and 69DC-01 for particulate control shall be in operation and control emissions from the woodworking operations at all times the woodworking operations are in operation.

The compliance monitoring requirements applicable to this source are as follows:

<b>Control (Integral Baghouse)</b>	<b>Parameter</b>	<b>Frequency</b>	<b>Range</b>
2DC-01	Baghouse Inspections	Quarterly	Normal - Abnormal
7ADC-01	Baghouse Inspections	Quarterly	Normal - Abnormal
7BDC-02	Baghouse Inspections	Quarterly	Normal - Abnormal
12DC-01	Baghouse Inspections	Quarterly	Normal - Abnormal
12DC-02	Baghouse Inspections	Quarterly	Normal - Abnormal
12DC-03	Baghouse Inspections	Quarterly	Normal - Abnormal
12DC-04	Baghouse Inspections	Quarterly	Normal - Abnormal
12DC-05	Baghouse Inspections	Quarterly	Normal - Abnormal
12DC-06	Baghouse Inspections	Quarterly	Normal - Abnormal
21DC-01	Baghouse Inspections	Quarterly	Normal - Abnormal
69DC-01	Baghouse Inspections	Quarterly	Normal - Abnormal

These monitoring conditions are necessary because the integral baghouses are an integral device for the woodworking equipment and must operate properly to ensure the woodworking operations are exempt from the requirements of 326 IAC 6-3-2.

**Proposed Changes**

The following changes listed below are due to the proposed revision. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

### Summary of Updates Throughout the Permit

- (a) Typographical errors have been corrected throughout the permit.
- (b) Conditions have been renumbered as necessary.

### Modifications to Section A

- (a) Condition A.1 - General Information has been revised. Plant 16 located at 1330 Wade Drive, Elkhart, IN 46514 and Plant 23 located at 2946 Jami Drive, Elkhart, IN 46514 have been removed from the source. Plant 6 (Customer Service) will be approved for construction and is located at 2901 Dexter Drive, Elkhart, IN 46514.

IDEM, OAQ has specified the SIC code for the source.

- (b) Condition A.2 - Source Definition has been revised as follows to reflect the proposed changes to the plants:

- (1) Plant 3 will be reconfigured to a maintenance shop and the existing lamination process will be relocated to Plant 19.
- (2) Plant 5 (Returns/Service) will be approved for construction.
- (3) Plant 16 and Plant 23 will be removed from the source.
- (4) Plant 6 will be approved for construction.

- (c) Condition A.3 - Emission Units and Pollution Control Equipment Summary has been revised as follows:

- (1) Plant 2 consists of one travel trailer continuous assembly line. The capacity of the line has been increased to 1.5 units per hour.
- (2) All of the baghouses located at the source are considered to be an Integral Part of the Process as described in an appeal filed by Kimball Hospitality Furniture Inc. (Cause Nos. 92-A-J-730 and 92-A-J-833).
- (3) Plant 3 will be reconfigured to a maintenance shop and the existing lamination process will be relocated to Plant 19.
- (4) Plant 7 consists of two travel trailer continuous assembly lines, 7A and 7B. The capacity of each line has been increased to 2.75 units per hour. Plant 7 has two cabinet and molding assembly operations, identified as WW7A and WW7B.
- (5) The Sidewall Lamination process in Plant 11 is considered an insignificant activity.
- (6) The manual sanding operation, identified as MPE12, is considered an insignificant activity.
- (7) Plant 16 and Plant 23 have been removed from the source.
- (8) Plant 17 and Plant 18 each consist of one travel trailer continuous assembly line.
- (9) Miscellaneous Maching PM Equipment (MPE17/18) is considered an insignificant activity.

- (10) The small parts lamination process, identified as SPL19 is considered an insignificant activity.
  - (11) Plant 21 and Plant 22 each consist of one travel trailer continuous assembly line. The capacity of each line has been increased to 2.5 units per hour.
  - (12) Plant 69 consists of two travel trailer continuous assembly lines, 69A and 69B.
- (d) Condition A.4 - Insignificant Activities has been revised as follows:
- (1) All of the natural gas combustion units located at the source have added **with a maximum** rated ~~at capacity~~ **of** to the descriptions to correctly specify the maximum capacity for each of the natural gas units.
  - (2) The four (4) metal inert gas (MIG) welding stations, identified as WC3 have been removed from Plant 3 and moved to Plant 19.
  - (3) Plant 6 will be approved for construction.
  - (4) The Sidewall Lamination process in Plant 11 is considered an insignificant activity that consists of two lines.
  - (5) The manual sanding operation, identified as MPE12, is considered an insignificant activity.
  - (6) Plant 16 and Plant 23 have been removed from the source.
  - (7) Plant 5 will be approved for construction.
  - (8) Miscellaneous Maching PM Equipment (MPE17/18) is considered an insignificant activity.
  - (9) The small parts lamination process, identified as SPL19 is considered an insignificant activity.

The permit has been revised as follows:

## SECTION A SOURCE SUMMARY

This permit 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 through A.34 is descriptive information and does not constitute enforceable conditions. However, the Permittee 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 Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

---

The Permittee owns and operates a stationary non-motorized travel trailer manufacturing plant.

Source Address(es):

- 1001 All Pro Drive, Elkhart, IN 46514
- 2944 Dexter Drive, Elkhart, IN 46514
- 1140 D.I. Drive, Elkhart, IN 46514
- 1111 All Pro Drive, Elkhart, IN 46514
- 2900 Dexter Drive, Elkhart, IN 46514

~~1330 Wade Drive, Elkhart, IN 46514~~  
~~1110 C.R. 6 West, Elkhart, IN 46514~~  
1110 D.I Drive, Elkhart, IN 46514  
2950 Paul Drive, Elkhart, IN 46514  
2824 Paul Drive, Elkhart, IN 46514  
~~2946 Jami Drive, Elkhart, IN 46514~~  
~~2929 Gateway Drive, Elkhart, IN 46514~~  
**2901 Dexter Drive, Elkhart, IN 46514**  
General Source Phone Number: (574) 262-5992  
SIC Code: 3792 (**Travel Trailers and Campers**)  
County Location: Elkhart  
Source Location Status: Attainment for all criteria pollutants  
Source Status: Federally Enforceable State Operating Permit Program  
Minor Source, under PSD and Emission Offset Rules  
Minor Source, Section 112 of the Clean Air Act  
Not 1 of 28 Source Categories

A.2 Source Definition [326 IAC 2-8-1][326 IAC 2-7-1(22)]

This non-motorized travel trailer manufacturing source consists of ~~fifteen (15)~~**fourteen (14)** plants located at eleven (11) addresses:

- (a1) Plants 2, 7A, and 7B (Assembly) are located at 1001 All Pro Drive, Elkhart, IN 46514;
- (b2) Plant 3 (~~Hot-melt Lamination~~**Maintenance**) is located at 2944 Dexter Drive, Elkhart, IN 46514;
- (e3) Plant 11 (Sidewall Lamination) is located at 1140 D.I. Drive, Elkhart, IN 46514;
- (d4) Plant 12 (~~Counter-Top~~**Cabinet and Molding**) is located at 1111 All Pro Drive, Elkhart, IN 46514;
- (e5) Plant 14 **and Plant 5** (Returns/Service) ~~is~~**are** located **at** 2900 Dexter Drive, Elkhart, IN 46514;
- (f) ~~Plant 16 (Assembly) is located at 1330 Wade Drive, Elkhart, IN 46514;~~
- (g)(6) Plant 17 and 18 (Assembly) are located at ~~440~~**1110** CR 6 West, Elkhart, IN 46514;
- (h7) Plant 19 (Small Parts Lamination) 1110 D.I Drive, Elkhart, IN 46514
- (i8) Plant 21(**Assembly**) is located at 2950 Paul Drive, Elkhart, IN 46514;
- (j9) Plant 22(**Assembly**) is located at 2824 Paul Drive, Elkhart, IN 46514;
- (k) ~~Plant 23 is located at 2946 Jami Drive, Elkhart, IN 46514; and~~
- (10) Plants 69A and 69B (Assembly) are located at 2929 Gateway Drive, Elkhart, IN 46514.
- (11) **Plant 6 (Customer Service) is located at 2901 Dexter Drive, Elkhart, IN 46514**

Since the ~~sixteen (16)~~**fourteen (14)** plants are located on contiguous or adjacent properties, or within two (2) miles of each other, belong to the same industrial grouping, and are under common control of the same entity, they will be considered one (1) source, effective from the date of issuance of this New Source Construction and FESOP Renewal.

A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

---

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

Plant 2 (1001 All Pro Drive, Elkhart, IN 46514)

- (a) One (1) ~~chassis preparation operation~~ **travel trailer assembly line**, identified as ~~GP2~~ **Plant 2**, constructed in 2005, **approved in 2016 for modification**, with a maximum capacity of 1.255 units per hour ~~and uses less than five (5) gallons of coating per day, applying a rubberized undercoating to metal substrates, utilizing no control devices, and exhausting within the building,~~ **and consisting of the following:**
- (~~b~~) **(1) chassis preparation operation, identified as CP2, applying a rubberized undercoating to metal substrates via brush coating.**
  - (2) One (1) assembly line operation, identified as ALO2, ~~constructed in 2005, with a maximum capacity of 1.25 units per hour, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating, utilizing no control devices, and exhausting within the building.~~
  - (~~e~~) **(3) One (1) touch-up paint operation, identified as TP2, constructed in 2005, with a maximum capacity of 1.25 units per hour and uses less than five (5) gallons of coating per day, applying various coatings to metal, wood, fabric, and plastic substrates, utilizing no control devices, and exhausting within the building via aerosol cans and HVLP guns.**
  - (~~d~~) **(4) One (1) final finish operation, identified as FF2, constructed in 2005, with a maximum capacity of 1.25 units per hour and uses less than five (5) gallons of coating per day, applying polish, cleaners, and markers to metal, plastic, and wood substrates, utilizing no control devices, and exhausting within the building via aerosol cans and brush coating.**
- (~~e~~) **(b) One (1) cabinet and molding assembly operation, identified as WW2, constructed in 2005, controlled by integral baghouse 2DC-01, exhausting within the building, and consisting of multiple sanders, saws, and routers, each with a maximum throughput rate of 400 lbs/hr. and consisting of the following:**
- (~~f~~) **(1) One (1) PVC chop saw, identified as 2CS1, constructed in 2006, with a maximum capacity of 10 cuts per hour, utilizing no control device, and exhausting within the building.**
  - (~~g~~) **(2) Two (2) aluminum chop saws, identified as 2CS2 and 2CS3, constructed in 2006, with a combined maximum capacity of 10 cuts per hour, utilizing no control devices, and exhausting within the building.**
  - (~~h~~) **(3) Four (4) wood chop saws, identified as 2CS4 through 2CS7, constructed in 2006, with a combined maximum capacity of 20 cuts per hour, utilizing no control devices, and exhausting within the building.**
  - (~~i~~) **(4) Two (2) drill presses, identified as 2DP1 and 2DP2, constructed in 2006, with a combined maximum capacity of 5 pieces per hour, utilizing no control devices, and exhausting within the building.**
  - (~~j~~) **(5) Six (6) hand routers, identified as 2HR1 through 2HR6, constructed in 2006, with a combined maximum capacity of 120 feet per hour, utilizing no control devices, and exhausting within the building.**

**Plant 3 (2944 Dexter Drive, Elkhart, IN 46514)**

- (a) ~~One (1) small parts lamination process, identified as SPL3, approved for construction in 2011, with a maximum capacity of 10 units per hour, applying adhesives to wood and plastic substrates via roll coating, utilizing no control devices.~~

**Plant 7A / 7B (1001 All Pro Drive, Elkhart, IN 46514)**

- (a)(c) **One (1) travel trailer assembly line, identified as Plant 7A, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 2.75 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:**
- (1) ~~One (1) chassis preparation operation, identified as CP7A/7B, approved for construction in 2011, with a maximum capacity of 1.25 units per hour and uses less than five (5) gallons of coating per day, applying a rubberized undercoating to metal substrates, utilizing no control devices, exhausting within the building via brush coating.~~
- 
- (b) ~~Two (2) **One (1) assembly line operations operation**, identified as ALO7A and ALO7B, approved for construction in 2011, with a combined maximum capacity of 1.25 units per hour, each, applying various coatings to metal, wood, fabric, and plastic substrates via **brush and** flow coating, utilizing no control devices, and exhausting within the building.~~
- (e3) ~~One (1) touch-up paint operation, identified as TP7A/7B, approved for construction in 2011, with a maximum capacity of 1.25 units per hour and uses less than five (5) gallons of coating per day, applying paint **various coatings** to metal, **wood, fabric, and plastic** substrates, utilizing no control devices, and exhausting within the building **via aerosol cans and HVP guns**.~~
- (e4) ~~One (1) final finish operation, identified as FF7A/7B, approved for construction in 2011, with a maximum capacity of 1.25 units per hour and uses less than five (5) gallons of coating per day, applying polish, cleaners, and markers to metal, plastic, and wood substrates, utilizing no control devices, and exhausting within the building **via aerosol cans and brush coating**.~~
- (ed) ~~One (1) cabinet and molding assembly operation, identified as WW7A/7B, approved for construction, **constructed** in 2011, controlled by **integral** baghouse **7A/7BDC7ADC-01**, exhausting within the building, and consisting of **multiple sanders, saws, and routers**, each with a maximum throughput rate of 400 lbs/hr. **and consisting of the following:**~~
- (f1) ~~One (1) PVC chop saw, identified as 7ACS1, approved for construction **constructed** in 2011, with a maximum capacity of 10 cuts per hour, utilizing no control device, and exhausting within the building.~~
- (g2) ~~Two (2) aluminum chop saws, identified as 7ACS2 and 7ACS-3, approved for construction **constructed** in 2011, with a combined maximum capacity of 10 cuts per hour, utilizing no control devices, and exhausting within the building.~~
- (h3) ~~Four (4) wood chop saws, identified as 7ACS4 through 7ACS8, approved for construction **constructed** in 2011, with a combined maximum capacity of 20 cuts per hour, utilizing no control devices, and exhausting within the building.~~

- (i4) Two (2) drill presses, identified as 7ADP1 and 7ADP2, ~~approved for construction~~**constructed** in 2011, with a combined maximum capacity of 5 pieces per hour, ~~utilizing no control devices, and exhausting within the building.~~
- (j5) Six (6) hand routers, identified as 7AHR1 through 7AHR6, ~~approved for construction~~**constructed** in 2011, with a combined maximum capacity of 120 feet per hour, ~~utilizing no control devices, and exhausting within the building.~~
- (e) **One (1) travel trailer assembly line, identified as Plant 7B, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 2.75 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:**
  - (1) **One (1) chassis preparation operation, identified as CP7B, applying a rubberized undercoating to metal substrates via brush coating.**
  - (2) **One (1) assembly line operation, identified as ALO7B, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.**
  - (3) **One (1) touch-up paint operation, identified as TP7B, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.**
  - (4) **One (1) final finish operation, identified as FF7B, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.**
- (f) **One (1) cabinet and molding assembly operation, identified as WW7B, constructed in 2011, controlled by integral baghouse 7BDC-01, exhausting within the building, each with a maximum throughput rate of 400 lbs/hr and consisting of the following:**
  - (1) **One (1) PVC chop saw, identified as 7BCS1, constructed in 2011, with a maximum capacity of 10 cuts per hour.**
  - (2) **Two (2) aluminum chop saws, identified as 7BCS2 and 7BCS-3, constructed in 2011, with a combined maximum capacity of 10 cuts per hour.**
  - (3) **Four (4) wood chop saws, identified as 7BCS4 through 7BCS8, constructed in 2011, with a combined maximum capacity of 20 cuts per hour.**
  - (4) **Two (2) drill presses, identified as 7BDP1 and 7BDP2, constructed in 2011, with a combined maximum capacity of 5 pieces per hour.**
  - (5) **Six (6) hand routers, identified as 7BHR1 through 7BHR6, constructed in 2011, with a combined maximum capacity of 120 feet per hour.**

**Plant 11 (1140 D.I. Drive, Elkhart, IN 46514)**

- ~~(a) One (1) sidewall lamination operation, identified as SLO11, approved for construction in 2011, with a maximum capacity of 20 units per hour, applying adhesives to wood and plastic substrates via roll coating, utilizing no control devices.~~

**Plant 12 (1111 All Pro Drive, Elkhart, IN 46514)**

- (ag) One (1) cabinet and molding assembly operation, identified as ~~WWE12~~**WW12**, approved

for construction in 2011, and consisting of the following:

- (1) Two (2) 6 inch edge sanders, each with a maximum capacity of 150 lbs per hour, controlled by **integral** baghouse 12DC-0406, and exhausting within the building.
  - (2) Four (4) 12 inch chop saws, each with a maximum capacity of 50 lbs per hour, controlled by **integral** baghouse 12DC-01, and exhausting within the building.
  - (3) One (1) 10 inch band saw, with a maximum capacity of 200 lbs per hour, controlled by **integral** baghouse 12DC-01, and exhausting within the building.
  - (4) Two (2) 12 inch table saws, each with a maximum capacity of 100 lbs per hour, controlled by **integral** baghouse 12DC-02, and exhausting within the building.
  - (5) One (1) panel saw, with a maximum capacity of 200 lbs per hour, controlled by **integral** baghouse 12DC-02, and exhausting within the building.
  - (6) One (1) CNC router, with a maximum capacity of 600 lbs per hour, controlled by **integral** baghouse 12DC-03, and exhausting within the building.
  - (7) One (1) CNC router, with a maximum capacity of 600 lbs per hour, controlled by **integral** baghouse 12DC-04, and exhausting within the building.
  - (8) One (1) CNC router, identified as CNC3, approved for construction in 2013, with a maximum capacity of 600 lbs per hour, equipped with an integral baghouse 12DC-0305, and exhausting within the building.
- ~~(b) One (1) manual sanding operation, identified as MPE14, approved for construction in 2011, with a maximum capacity of 200 feet per hour, utilizing no control devices, and exhausting within the building.~~

**Plant 14 (2900 Dexter Drive, Elkhart, IN 46514)**

~~Return and service center.~~

**Plant 16 (1330 Wade Drive, Elkhart, IN 46514)**

- ~~(a) One (1) chassis preparation operation, identified as CP16, approved for construction in 2011, with a maximum capacity of 0.50 units per hour and uses less than five (5) gallons of coating per day, applying a rubberized undercoating to metal substrates, utilizing no control devices.~~
- ~~(b) One (1) assembly line operation, identified as ALO16 approved for construction in 2011, with a maximum capacity of 0.50 units per hour, applying various coatings to metal, wood, fabric, and plastic substrates via flow coating, utilizing no control devices.~~
- ~~(c) One (1) touch-up paint operation, identified as TP16, approved for construction in 2011, with a maximum capacity of 0.50 units per hour and uses less than five (5) gallons of coating per day, applying paint to metal substrates, utilizing no control devices.~~
- ~~(d) One (1) final finish operation, identified as FF16, approved for construction in 2011, with a maximum capacity of 0.50 units per hour and uses less than five (5) gallons of coating per day, applying polish, cleaners, and markers to metal, plastic, and wood substrates, utilizing no control devices.~~
- ~~(e) One (1) cabinet and molding assembly operation, identified as WW16, approved for construction in 2011, controlled by baghouse 16DC-01, exhausting within the building,~~

~~and consisting of multiple sanders, saws, and routers, each with a maximum throughput rate of 300 lbs/hr.~~

- ~~(f) One (1) PVC chop saw, identified as 16CS1, approved for construction in 2011, with a maximum capacity of 10 cuts per hour, utilizing no control device, and exhausting within the building.~~
- ~~(g) One (1) table router, identified as 16TR1, approved for construction in 2011, with a maximum capacity of 20 cuts per hour, utilizing no control devices, and exhausting within the building.~~
- ~~(h) Four (4) wood chop saws, identified as 16CS2 through 16CS5, approved for construction in 2011, with a combined maximum capacity of 20 cuts per hour, utilizing no control devices, and exhausting within the building.~~
- ~~(i) Two (2) drill presses, identified as 16DP1 and 16DP2, approved for construction in 2011, with a combined maximum capacity of 5 pieces per hour, utilizing no control devices, and exhausting within the building.~~
- ~~(j) Four (4) hand routers, identified as 16HR1 through 16HR4, approved for construction in 2011, with a combined maximum capacity of 80 feet per hour, utilizing no control devices, and exhausting within the building.~~

Plant 17 / 18 (1110 CR 6 West, Elkhart, IN 46514)

- (ah) One (1) travel trailer assembly line, identified as Plant 17, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 0.5 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:**
  - ~~(1) One (1) chassis preparation operation, identified as CP17/18, approved for construction in 2011, with a maximum capacity of 0.50 units per hour and uses less than five (5) gallons of coating per day, applying a rubberized undercoating to metal substrates, utilizing no control devices via brush coating.~~
  - ~~(b) Two (2) One (1) assembly line operations operation, identified as ALO17 and ALO18, approved for construction in 2011, with a combined maximum capacity of 0.50 units per hour, each, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating, utilizing no control devices.~~
  - ~~(c3) One (1) touch-up paint operation, identified as TP17/18, approved for construction in 2011, with a maximum capacity of 0.50 units per hour and uses less than five (5) gallons of coating per day, applying paint various coatings to metal, wood, fabric, and plastic substrates, utilizing no control devices via aerosol cans and HVLP guns.~~
  - ~~(d4) One (1) final finish operation, identified as FF17/18, approved for construction in 2011, with a maximum capacity of 0.50 units per hour and uses less than five (5) gallons of coating per day, applying polish, cleaners, and markers to metal, plastic, and wood substrates, utilizing no control devices via aerosol cans and brush coating.~~
- ~~(e) One (1) PVC chop saw, identified as 17/18CS1, approved for construction in 2011, with a maximum capacity of 10 cuts per hour, utilizing no control device, and exhausting within the building.~~

- ~~(f) One (1) table saw, identified as 17/18TS1, approved for construction in 2011, with a maximum capacity of 10 cuts per hour, utilizing no control devices, and exhausting within the building.~~
- ~~(g) Four (4) wood chop saws, identified as 17/18CS2 through 17/18CS5, approved for construction in 2011, with a combined maximum capacity of 10 cuts per hour, utilizing no control devices, and exhausting within the building.~~
- ~~(h) Four (4) hand routers, identified as 17/18HR1 through 17/18HR4, approved for construction in 2011, with a combined maximum capacity of 80 feet per hour, utilizing no control devices, and exhausting within the building.~~
- (i) One (1) travel trailer assembly line, identified as Plant 18, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 0.5 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:**
  - (1) One (1) chassis preparation operation, identified as CP18, applying a rubberized undercoating to metal substrates via brush coating.**
  - (2) One (1) assembly line operation, identified as ALO18, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.**
  - (3) One (1) touch-up paint operation, identified as TP18, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.**
  - (4) One (1) final finish operation, identified as FF18, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.**

**Plants 19 (1110 D.I Drive, Elkhart, IN 46514)**

- ~~(a) One (1) small parts lamination process, identified as SPL19, approved for construction in 2011, with a maximum capacity of 20 units per hour, applying adhesives to wood and plastic substrates via roll coating, utilizing no control devices.~~

**Plants 21, / 22, 23 (2950 Paul Drive, & 2824 Paul Drive, & 2946 Jami Drive, Elkhart, IN 46514)**

- ~~(a)(j) One (1) travel trailer assembly line, identified as Plant 21, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 2.5 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:~~
  - ~~(1) One (1) chassis preparation operation, identified as CP21/22/23, approved for construction in 2011, with a maximum capacity of 0.75 units per hour and uses less than five (5) gallons of coating per day, applying a rubberized undercoating to metal substrates, utilizing no control devices via brush coating.~~
  - ~~(b)~~
    - ~~(2) One (1) assembly line operation, identified as CP21/22/23, approved for construction in 2011, with a maximum capacity of 0.75 units per hour ALO21, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating, utilizing no control devices.~~

- (e3) One (1) touch-up paint operation, identified as ~~CP21/22/23~~, approved for construction in 2011, with a maximum capacity of 0.75 units per hour and uses less than five (5) gallons of coating per day **TP21**, applying paint **various coatings** to metal, **wood, fabric, and plastic** substrates, utilizing no control devices **via aerosol cans and HVLP guns**.
- (d4) One (1) final finish operation, identified as ~~FF21/22/23~~, approved for construction in 2011, with a maximum capacity of 0.75 units per hour and uses less than five (5) gallons of coating per day, applying polish, cleaners, and markers to metal, plastic, and wood substrates, utilizing no control devices **via aerosol cans and brush coating**.
- (k) **One (1) travel trailer assembly line, identified as Plant 22, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 2.5 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:**
  - (1) **One (1) chassis preparation operation, identified as CP22, applying a rubberized undercoating to metal substrates via brush coating.**
  - (2) **One (1) assembly line operation, identified as ALO22, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.**
  - (3) **One (1) touch-up paint operation, identified as TP22, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.**
  - (4) **One (1) final finish operation, identified as FF22, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.**
- (e1) One (1) cabinet and molding assembly operation, identified as ~~WW21/22/23~~, approved for construction, **constructed** in 2011, controlled by **integral** baghouse 21DC-01, exhausting within the building, and consisting of multiple sanders, saws, and routers, each with a maximum throughput rate of ~~300~~ **750 lbs/hr. and consisting of the following:**
  - (f1) One (1) PVC chop saw, identified as 21CS1, approved for construction **constructed** in 2011, with a maximum capacity of 10 cuts per hour, utilizing no control device, and exhausting within the building.
  - (g2) Three (3) table saws, identified as 21TS1 through 21TS3, approved for construction **constructed** in 2011, with a combined maximum capacity of 10 cuts per hour, utilizing no control devices, and exhausting within the building.
  - (h3) Four (4) wood chop saws, identified as 21CS2 through 21CS5, approved for construction **constructed** in 2011, with a combined maximum capacity of 8 cuts per hour, utilizing no control devices, and exhausting within the building.
  - (i4) One (1) drill press, identified as 21DP1, approved for construction **constructed** in 2011, with a combined maximum capacity of 2.5 pieces per hour, utilizing no control devices, and exhausting within the building.
  - (j5) Four (4) hand routers, identified as 21HR1 through 21HR4, approved for construction **constructed** in 2011, with a combined maximum capacity of 80 feet

~~per hour, utilizing no control devices, and exhausting within the building.~~

Plant 69A / 69B (2929 Gateway Drive, Elkhart, IN 46514)

- (am) One (1) ~~chassis preparation operation~~ **travel trailer assembly line**, identified as ~~CP69A/69B, approved for construction~~ **Plant 69A, constructed** in 2011, with a maximum capacity of 2.000 units per hour and ~~uses, less than five (5) gallons of coating per day,~~ **utilizing no control devices, exhausting within the building, and consisting of the following:**
- (1) **One (1) chassis preparation operation, identified as CP69A, applying a rubberized undercoating to metal substrates, utilizing no control devices via brush coating.**
  - ~~(b) Two (2) One (1) assembly line operations~~ **operation**, identified as ALO69A and ALO69B ~~approved for construction in 2011, with a maximum capacity of 2.00 units per hour, each, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating, utilizing no control devices.~~
  - (e3) One (1) touch-up paint operation, identified as TP69A/69B, ~~approved for construction in 2011, with a maximum capacity of 2.00 units per hour and uses less than five (5) gallons of coating per day, applying paint~~ **various coatings** to metal, **wood, fabric, and plastic** substrates, ~~utilizing no control devices via aerosol cans and HVLP guns.~~
  - (d4) One (1) final finish operation, identified as FF69A/69B, ~~approved for construction in 2011, with a maximum capacity of 2.00 units per hour and uses less than five (5) gallons of coating per day, applying polish, cleaners, and markers to metal, plastic, and wood substrates, utilizing no control devices~~ **via aerosol cans and brush coating.**
- (n) **One (1) travel trailer assembly line, identified as Plant 69B, constructed in 2011, with a maximum capacity of 2.0 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:**
- (1) **One (1) chassis preparation operation, identified as CP69B, applying a rubberized undercoating to metal substrates via brush coating.**
  - (2) **One (1) assembly line operation, identified as ALO69B, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.**
  - (3) **One (1) touch-up paint operation, identified as TP69B, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.**
  - (4) **One (1) final finish operation, identified as FF69B, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.**
- (eo) One (1) cabinet and molding assembly operation, identified as WW69A/69B, ~~approved for construction~~ **constructed** in 2011, controlled by **integral** baghouse 69DC-01, exhausting within the building, ~~and consisting of multiple sanders, saws, and routers, each with a maximum throughput rate of 400 lbs/hr.——~~ **and consisting of the following:**

- (f1) One (1) PVC chop saw, identified as 69CS1, ~~approved for construction~~**constructed** in 2011, with a maximum capacity of 10 cuts per hour, ~~utilizing no control device, and exhausting within the building.~~
- (g2) Three (3) table saws, identified as 69TS1 through 69TS3, ~~approved for construction~~**constructed** in 2011, with a combined maximum capacity of 10 cuts per hour, ~~utilizing no control devices, and exhausting within the building.~~
- (h3) Seven (7) wood chop saws, identified as 69CS2 through 69CS8, ~~approved for construction~~**constructed** in 2011, with a combined maximum capacity of 20 cuts per hour, ~~utilizing no control devices, and exhausting within the building.~~
- (i4) Two (2) drill presses, identified as 69DP1 and 69DP2, ~~approved for construction~~**constructed** in 2011, with a combined maximum capacity of 5 pieces per hour, ~~utilizing no control devices, and exhausting within the building.~~
- (j5) Four (4) hand routers, identified as 69HR1 through 69HR4, ~~approved for construction~~**constructed** in 2011, with a combined maximum capacity of 80 feet per hour, ~~utilizing no control devices, and exhausting within the building.~~

A.4 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

---

This stationary source also includes the following insignificant activities:

Plant 2 (1001 All Pro Drive, Elkhart, IN 46514)

- (a) One (1) welding and cutting operation, identified as WC2, constructed in 2007, consisting of:
  - (1) One (1) metal inert gas (MIG) welding station, with a maximum electrode usage of 1.00 lbs/hr (Wire Type E70S);
  - (2) One (1) stick welding station, with a maximum electrode usage of 0.50 lbs/hr (E5154 Electrode); and
  - (3) One (1) oxyacetylene/electric arc cutting station, cutting a maximum metal thickness of 0.75 inches and a maximum metal cutting rate of 12 inches per minute.
- (b) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
  - (1) Two (2) forced air furnaces, identified as 2H-01 and 2H-02, each **with a maximum rated atcapacity of 1.30 MMBtu/hr**; and
  - (2) Two (2) forced air furnaces, identified as 2H-03 and 2H-04, each **with a maximum rated atcapacity of 0.09 MMBtu/hr**.

Plant 3 (2944 Dexter Drive, Elkhart, IN 46514)

- ~~(a) Four (4) metal inert gas (MIG) welding stations, identified as WC3, approved for construction in 2011, each with a maximum electrode usage of 5.40~~ (ab) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
  - (1) Seven (7) tube heaters, identified as 3H-01 through 3H-07, each **with a maximum rated atcapacity of 0.35 MMBtu/hr**;

- (2) One (1) tube heater, identified as 3H-08, **with a maximum rated capacity of 0.10 MMBtu/hr**; and
- (3) One (1) forced air furnace, identified as 3H-09, **with a maximum rated capacity of 0.08 MMBtu/hr**.

**Plant 6 (2901 Dexter Drive, Elkhart, IN 46514)**

- (a) **Two (2) touch-up paint line operations, identified as Plant 6, approved for construction in 2016, with a maximum capacity of 0.25 units per hour, each, and uses less than five (5) gallons of coating per day, each, applying paint to metal substrates, utilizing no control devices, and exhausting within the building.**
- (b) **Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:**
  - (1) **One (1) forced air furnace, identified as 6H-01, with a maximum rated capacity of 0.5 MMBtu/hr.**
  - (2) **Two (2) thermo cyclers, identified as 6H-02 and 6H-03, each with a maximum rated capacity of 0.250 MMBtu/hr, each;**
  - (3) **One (1) thermo cycler, identified as 6H-04, with a maximum rated capacity of 0.150 MMBtu/hr;**

**Plant 7A / 7B (1001 All Pro Drive, Elkhart, IN 46514)**

- (a) One (1) welding and cutting operation, identified as WC7A/7B, approved for construction in 2011, consisting of:
  - (1) One (1) metal inert gas (MIG) welding station, with a maximum electrode usage of 1.00 lbs/hr (Wire Type E70S);
  - (2) One (1) stick welding station, with a maximum electrode usage of 0.50 lbs/hr (E5154 Electrode); and
  - (3) One (1) oxyacetylene/electric arc cutting station, cutting a maximum metal thickness of 0.75 inches and a maximum metal cutting rate of 12 inches per minute.
- (b) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
  - (1) Two (2) forced air furnaces, identified as 7AH-01 and 7AH-02, each **with a maximum rated capacity of 0.464 MMBtu/hr**; and
  - (2) Two (2) forced air furnaces, identified as 7AH-03 and 7AH-04, each **with a maximum rated capacity of 0.09 MMBtu/hr**.

**Plant 11 (1140 D.I. Drive, Elkhart, IN 46514)**

- (a) **One (1) sidewall lamination operation, identified as SLO11, applying adhesives to wood and plastic substrates via roll coating, utilizing no control devices, consisting of the two operations in series:**
  - (1) One (1) ~~(a) Six (6)~~ **sidewall lamination operation, identified as SLO11A**

**approved for construction in 2011, with a maximum capacity of 20 units per hour.**

- (2) **One (1) sidewall lamination operation, identified as SLO11B, approved for construction in 2016, with a maximum capacity of 20 units per hour.**
- (b) **Eight (8) metal inert gas (MIG) welding stations, identified as WC11, approved for construction in 2011, each with a maximum electrode usage of 5.40 lbs/hr (Wire Type E70S).**
- (bc) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
  - (1) Twelve (12) tube heaters, identified as 11H-01 through 11H-12, each **with a maximum rated capacity of 0.10 MMBtu/hr.**

Plant 12 (1111 All Pro Drive, Elkhart, IN 46514)

- ~~(a) Nine (9) aluminum~~ (a) **One (1) manual sanding operation, identified as MPE12, approved for construction in 2011, consisting of one (1) downdraft sanding table, one (1) sidedraft table, and handheld sanders, with a maximum capacity of 200 feet per hour, utilizing no control devices, and exhausting within the building.**
- (b) **Nine (9) metal inert gas (MIG) welding stations, identified as WC12, approved for construction in 2011, each with a maximum electrode usage of 5.40 lbs/hr.**
- (bc) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
  - (1) ~~One (1) Two (2)~~ forced air furnace, identified as 12H-01, **and 12H-02, with a maximum rated capacity of 0.44408 MMBtu/hr;**
  - (2) ~~One (1) Two (2)~~ forced air furnace, identified as 12H-02, **03 and 12H-04, with a maximum rated capacity of 0.0814 MMBtu/hr; and**
  - (3) ~~Three (3) One (1)~~ thermo cyclers **scycler, identified as 12H-03 through 12H-05, each with a maximum rated capacity of 0.4 MMBtu/hr.**

Plant 14 (2900 Dexter Drive, Elkhart, IN 46514)

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
  - (1) Two (2) forced air furnaces, identified as 14H-01 and 14H-02, each **with a maximum rated capacity of 0.80 MMBtu/hr;**
  - (2) Two (2) forced air furnaces, identified as 14H-03 and 14H-04, each **with a maximum rated capacity of 0.14 MMBtu/hr; and**
  - (3) One (1) thermo cyclers, identified as 14H-05, **with a maximum rated capacity of 0.40 MMBtu/hr.**

Plant ~~16 (1330 Wade)~~ 5 (2900 Dexter Drive, Elkhart, IN 46514)

- ~~(a) One (1) welding and cutting operation, identified as WC16, approved for construction in 2011, consisting of:~~

- ~~(1) One (1) metal inert gas (MIG) welding station, with a maximum electrode usage of 1.00 lbs/hr (Wire Type E70S); and~~
  - ~~(2) One (1) oxyacetylene/electric arc cutting station, cutting a maximum metal thickness of 0.75 inches and a maximum metal cutting rate of 12 inches per minute.~~
- ~~(b)(a)~~ Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
- (1) Two (2) forced air furnaces, identified as ~~46H5H-01~~ and ~~46H5H-02~~, each **with a maximum rated capacity of 0.80 MMBtu/hr; and**
  - (2) Two (2) forced air furnaces, identified as ~~46H5H-03~~ and ~~46H5H-04~~, each **with a maximum rated capacity of 0.9914 MMBtu/hr; and**
  - (3) **One (1) thermo cycler, identified as 5H-05, with a maximum rated capacity of 0.40 MMBtu/hr.**

Plant 17 / 18 (1110 CR 6 West, Elkhart, IN 46514)

- (a) One (1) metal inert gas (MIG) welding station, identified as WC17/18 with a maximum electrode usage of 1.00 lbs/hr (Wire Type E70S).
- (b) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
  - (1) ~~Two (2) Four (4)~~ forced air furnaces, identified as 17/18H-01 ~~and through~~ 17/18H-0204, each **with a maximum rated capacity of 0.15 MMBtu/hr; and**
- (c) **One (1) PVC chop saw, identified as 17/18CS1, approved for construction in 2011, with a maximum capacity of 10 cuts per hour, utilizing no control device, and exhausting within the building.**
- (d) **One (1) table saw, identified as 17/18TS1, approved for construction in 2011, with a maximum capacity of 10 cuts per hour, utilizing no control devices, and exhausting within the building.**
- (e) **Four (4) wood chop saws, identified as 17/18CS2 through 17/18CS5, approved for construction in 2011, with a combined maximum capacity of 10 cuts per hour, utilizing no control devices, and exhausting within the building.**
- (f) **Four (4) hand routers, identified as 17/18HR1 through 17/18HR4, approved for construction in 2011, with a combined maximum capacity of 80 feet per hour, utilizing no control devices, and exhausting within the building.**

Plant 19 (1110 D.I Drive, Elkhart, IN 46514)

- (a) **One (1) hot melt lamination process, identified as SPL19, approved for construction in 2011, consisting of three (3) lines, with a maximum capacity of 20 units per hour, total, applying adhesives to wood and plastic substrates via roll coating, utilizing no control devices.**
- (b) **Eighteen (18) metal inert gas (MIG) welding stations, identified as WC19 with a maximum electrode usage of 1.00 lbs/hr (Wire Type E70S).**

~~((2) — Two (2c))~~ **Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:**

- (1) **Four (4)** forced air furnaces, identified as ~~47/18H-03 and 47/18H-19H-01 through 19H-04~~, each **with a maximum rated capacity of 0.45114 MMBtu/hr.**;
- (2) **One (1)** forced air furnace, identified as **19H-05**, with a maximum rated capacity of **0.08 MMBtu/hr.**; and
- (3) **Three (3)** thermo cyclers, identified as **19H-06 through 19H-08**, each with a maximum rated capacity of **1.2 MMBtu/hr.**

Plant 21, and 22, 23 (2950 Paul Drive, & 2824 Paul Drive, & ~~2946 Jami Drive~~, Elkhart, IN 46514)

- (a) One (1) welding and cutting operation, identified as ~~WC21/22/23~~ approved for construction in 2011, consisting of:
  - (1) Two (2) metal inert gas (MIG) welding stations, each with a maximum electrode usage of 1.00 lbs/hr (Wire Type E70S); and
  - (2) One (1) oxyacetylene/electric arc cutting station, cutting a maximum metal thickness of 0.75 inches and a maximum metal cutting rate of 12 inches per minute.
- (b) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
  - (1) Twelve (12) radiant tube heaters, identified as ~~21/22/23H-22H-01 through 21/22/23H-22H-12~~, each **with a maximum rated capacity of 0.08 MMBtu/hr.**; and
  - (2) Three (3) forced air furnaces, identified as ~~21/22/23H-22H-13 through 21/22/23H-4622H-15~~, each **with a maximum rated capacity of 0.06 MMBtu/hr.**

Plant 69A / 69B (2929 Gateway Drive, Elkhart, IN 46514)

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million BTU per hour:
  - (1) Sixteen (16) radiant tube heaters, identified as 69H-01 through 69H-16, each **with a maximum rated capacity of 0.14 MMBtu/hr.**;
  - (2) Two (2) forced air furnaces, identified as 69H-17 and 69H-18, each **with a maximum rated capacity of 0.10 MMBtu/hr.**; and
  - (3) Two (2) forced air furnaces, identified as 69H-19 and 69H-20, each **with a maximum rated capacity of 0.12 MMBtu/hr.**
- (b) **One (1) welding and cutting operation, identified as WC69A/69B approved for construction in 2011, consisting of:**
  - (1) **Four (4) metal inert gas (MIG) welding stations**, each with a maximum electrode usage of 1.00 lbs/hr (Wire Type E70S); and
  - (2) One (1) oxyacetylene/electric arc cutting station, cutting a **maximum metal**

**thickness of 0.75 inches and a maximum metal cutting rate of 12 inches per minute.**

**Modifications to Section B**

- (a) IDEM has added the operating permit number 039-29849-00621 issued on March 16, 2011 to Section B.2 Permit Term and B.13 Prior Permits Superseded.

The permit has been revised as follows:

**B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]**

- (a) This permit, **-F039-29849-00621**, is issued for a fixed term of **ten (10)** ~~five (5)~~ years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

\*\*\*

**B.3 Term of Conditions [326 IAC 2-1.1-9.5]**

\*\*\*

**B.4 Enforceability [326 IAC 2-8-6][IC 13-17-12]**

\*\*\*

**B.5 Severability [326 IAC 2-8-4(4)]**

\*\*\*

**B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]**

\*\*\*

**B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]**

\*\*\*

**B.8 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]**

\*\*\*

**B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]**

\*\*\*

**B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]**

\*\*\*

**B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]**

\*\*\*

**B.12 Emergency Provisions [326 IAC 2-8-12]**

\*\*\*

**B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

- (a) All terms and conditions of permits established prior to **-F039-29849-00621** and issued pursuant to permitting programs approved into the state implementation plan have been either:

\*\*\*

### Modifications to Section C

- (a) Section C.2 Overall Source Limit has been revised to remove GHGs because this source is not an anyway source. Therefore GHG emissions are not reviewed.
- (b) IDEM changed Section C - Overall Source Limit to limit PM, not a regulated pollutant under 326 IAC 2-8, to two hundred fifty (250) tons as the source is not one of the 28 Source Categories.
- (c) After discussions with EPA, OAQ decided to add a rule cite for the Compliance Monitoring Requirements subsection title in the C Section. The addition of this rule cite is to satisfy EPA's concerns. The FESOP Compliance Monitoring Requirements cite have been changed from 326 IAC 2-8-4 and 326 IAC 2-8-5(a)(1) to 326 IAC 2-8-4**(1)** and 326 IAC 2-8-5(a)(1) to match the other rule cites.

The permit has been revised as follows:

#### C.2 Overall Source Limit [326 IAC 2-8]

---

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

- (a) Pursuant to 326 IAC 2-8:
  - (1) The potential to emit any regulated pollutant, except particulate matter (PM) ~~and greenhouse gases (GHGs)~~, from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.
  - (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
  - (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
  - ~~(4) The potential to emit greenhouse gases (GHGs) from the entire source shall be limited to less than one hundred thousand (100,000) tons of CO<sub>2</sub> equivalent emissions (CO<sub>2</sub>e) per twelve (12) consecutive month period.~~
- (b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than ~~one~~**two hundred (100 fifty (250))** tons per twelve (12) consecutive month period.

\*\*\*

#### C.3 Opacity [326 IAC 5-1]

---

\*\*\*

#### C.4 Open Burning [326 IAC 4-1][IC 13-17-9]

---

\*\*\*

#### C.5 Incineration [326 IAC 4-2][326 IAC 9-1-2]

---

\*\*\*

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

---

\*\*\*

C.7 Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M]

---

\*\*\*

Testing Requirements [326 IAC 2-8-4(3)]

C.8 Performance Testing [326 IAC 3-6]

---

\*\*\*

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

---

\*\*\*

Compliance Monitoring Requirements [326 IAC 2-8-4~~(1)~~][326 IAC 2-8-5(a)(1)]

**Modifications to Section D.1**

- (a) Condition D.1 Emissions Unit Description box has been revised as follows:
  - (1) Plant 16 and Plant 23 have been removed from the source.
  - (2) The units included in the D.1 Emissions Unit Description Box consist of the same changes as discussed in this TSD.
- (b) Condition D.1.1 FESOP Limits has been revised to update to IDEM model language. Due to this revision at the source, the source has to limit VOC emissions in order to render the requirements of 326 IAC 2-2 (PSD) not applicable. Also due to this revision at the source, the source has to limit total HAP emissions to less than twenty-three (23) tons in order to render the source as an area source of HAP emissions under Section 112 of the Clean Air Act (CAA).
- (c) Condition D.1.2 Volatile Organic Compounds has been added to the permit because Plant 2, Plant 7A, Plant 7B, Plant 21, Plant 22, Plant 69A, and Plant 69B are subject to 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) and must limit VOC emissions to less than twenty-five (25.0) tons each.
- (d) After discussions with EPA, OAQ decided to add a rule cite for the Compliance Determination Requirements subsection title in Section D.1. The addition of this rule cite is to satisfy EPA's concerns. IDEM has added a citation to 326 IAC 2-8-4(1) to the Compliance Determination subheading in Section D.1.
- (e) Condition D.1.5 Record Keeping Requirements has been revised because the source has to limit single HAP and total HAP emissions. Records necessary to demonstrate compliance with the HAP limits have been added to permit.

The permit has been revised as follows:

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Plant 2 (1001 All Pro Drive, Elkhart, IN 46514)

- (a) ~~One (1) chassis preparation operation~~ **travel trailer assembly line**, identified as ~~CP2~~ **Plant 2**, constructed in 2005, **approved in 2016 for modification**, with a maximum capacity of 1.255 units per hour and uses, less than five (5) gallons of coating per day, applying a rubberized undercoating to metal substrates, utilizing no control devices, and exhausting within the building, **and consisting of the following:**
- ~~(b)~~ **(1) One (1) chassis preparation operation, identified as CP2, applying a rubberized undercoating to metal substrates via brush coating.**
- ~~(2)~~ **(2) One (1) assembly line operation, identified as ALO2, constructed in 2005, with a maximum capacity of 1.25 units per hour, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating, utilizing no control devices, and exhausting within the building.**
- ~~(e3)~~ **(3) One (1) touch-up paint operation, identified as TP2, constructed in 2005, with a maximum capacity of 1.25 units per hour and uses less than five (5) gallons of coating per day, applying paint various coatings to metal, wood, fabric, and plastic substrates, utilizing no control devices, and exhausting within the building via aerosol cans and HVLP guns.**
- ~~(d4)~~ **(4) One (1) final finish operation, identified as FF2, constructed in 2005, with a maximum capacity of 1.25 units per hour and uses less than five (5) gallons of coating per day, applying polish, cleaners, and markers to metal, plastic, and wood substrates, utilizing no control devices, and exhausting within the building via aerosol cans and brush coating.**

Plant 7A / 7B (1001 All Pro Drive, Elkhart, IN 46514)

- ~~(a)~~ **(c) One (1) travel trailer assembly line, identified as Plant 7A, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 2.75 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:**
- ~~(1)~~ **(1) One (1) chassis preparation operation, identified as CP7A/7B, approved for construction in 2011, with a maximum capacity of 1.25 units per hour and uses less than five (5) gallons of coating per day, applying a rubberized undercoating to metal substrates, utilizing no control devices, exhausting within the building via brush coating.**
- ~~(b)~~ **(2) One (1) assembly line operation, identified as ALO7A and ALO7B, approved for construction in 2011, with a combined maximum capacity of 1.25 units per hour, each, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating, utilizing no control devices, and exhausting within the building.**
- ~~(e3)~~ **(3) One (1) touch-up paint operation, identified as TP7A/7B, approved for construction in 2011, with a maximum capacity of 1.25 units per hour and uses less than five (5) gallons of coating per day, applying paint various coatings to metal, wood, fabric, and plastic substrates, utilizing no control devices, and exhausting within the building via aerosol cans and HVLP guns.**
- ~~(d4)~~ **(4) One (1) final finish operation, identified as FF7A/7B, approved for construction in 2011, with a maximum capacity of 1.25 units per hour and uses less than five (5) gallons of coating per day, applying polish, cleaners, and markers to metal, plastic, and wood substrates, utilizing no control devices, and exhausting within the building via aerosol cans and brush coating.**

- (e) **One (1) travel trailer assembly line, identified as Plant 7B, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 2.75 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:**
- (1) **One (1) chassis preparation operation, identified as CP7B, applying a rubberized undercoating to metal substrates via brush coating.**
  - (2) **One (1) assembly line operation, identified as ALO7B, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.**
  - (3) **One (1) touch-up paint operation, identified as TP7B, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.**
  - (4) **One (1) final finish operation, identified as FF7B, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.**

**Plant 16 (1330 Wade Drive, Elkhart, IN 46514)**

- (a) ~~One (1) chassis preparation operation, identified as CP16, approved for construction in 2011, with a maximum capacity of 0.50 units per hour and uses less than five (5) gallons of coating per day, applying a rubberized undercoating to metal substrates, utilizing no control devices.~~
- (b) ~~One (1) assembly line operation, identified as ALO16 approved for construction in 2011, with a maximum capacity of 0.50 units per hour, applying various coatings to metal, wood, fabric, and plastic substrates via flow coating, utilizing no control devices.~~
- (c) ~~One (1) touch-up paint operation, identified as TP16, approved for construction in 2011, with a maximum capacity of 0.50 units per hour and uses less than five (5) gallons of coating per day, applying paint to metal substrates, utilizing no control devices.~~
- (d) ~~One (1) final finish operation, identified as FF16, approved for construction in 2011, with a maximum capacity of 0.50 units per hour and uses less than five (5) gallons of coating per day, applying polish, cleaners, and markers to metal, plastic, and wood substrates, utilizing no control devices.~~

**Plant 17 / 18 (1110 CR 6 West, Elkhart, IN 46514)**

- (ah) **One (1) travel trailer assembly line, identified as Plant 17, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 0.5 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:**
- (1) **One (1) chassis preparation operation, identified as CP17/18, approved for construction in 2011, with a maximum capacity of 0.50 units per hour and uses less than five (5) gallons of coating per day, applying a rubberized undercoating to metal substrates, utilizing no control devices via brush coating.**
  - (b) ~~Two (2) One (1) assembly line operations~~**operation, identified as ALO17 and**

~~ALO18, approved for construction in 2011, with a combined maximum capacity of 0.50 units per hour, each, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating, utilizing no control devices.~~

~~(e3) One (1) touch-up paint operation, identified as TP17/18, approved for construction in 2011, with a maximum capacity of 0.50 units per hour and uses less than five (5) gallons of coating per day, applying paint to metal, wood, fabric, and plastic substrates, utilizing no control devices via aerosol cans and HVLP guns.~~

~~(d4) One (1) final finish operation, identified as FF17/18, approved for construction in 2011, with a maximum capacity of 0.50 units per hour and uses less than five (5) gallons of coating per day, applying polish, cleaners, and markers to metal, plastic, and wood substrates, utilizing no control devices via aerosol cans and brush coating.~~

**(i) One (1) travel trailer assembly line, identified as Plant 18, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 0.5 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:**

**(1) One (1) chassis preparation operation, identified as CP18, applying a rubberized undercoating to metal substrates via brush coating.**

**(2) One (1) assembly line operation, identified as ALO18, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.**

**(3) One (1) touch-up paint operation, identified as TP18, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.**

**(4) One (1) final finish operation, identified as FF18, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.**

Plants 21, / 22, ~~23~~ (2950 Paul Drive, & 2824 Paul Drive, & ~~2946 Jami Drive~~, Elkhart, IN 46514)

~~(a)~~ **(j) One (1) travel trailer assembly line, identified as Plant 21, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 2.5 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:**

**(1) One (1) chassis preparation operation, identified as CP21/22/23, approved for construction in 2011, with a maximum capacity of 0.75 units per hour and uses less than five (5) gallons of coating per day, applying a rubberized undercoating to metal substrates, utilizing no control devices via brush coating.**

~~(b)~~ **(2) One (1) assembly line operation, identified as ~~CP21/22/23~~, approved for construction in 2011, with a maximum capacity of 0.75 units per hour **ALO21**, applying various coatings to metal, wood, fabric, and plastic substrates via **brush and** flow coating, utilizing no control devices.**

- (e3) One (1) touch-up paint operation, identified as ~~CP21/22/23~~, approved for construction in 2011, with a maximum capacity of 0.75 units per hour and uses less than five (5) gallons of coating per day ~~TP21~~, applying paint **various coatings** to metal, **wood, fabric, and plastic** substrates, ~~utilizing no control devices via aerosol cans and HVLP guns.~~
- (d4) One (1) final finish operation, identified as ~~FF21/22/23~~, approved for construction in 2011, with a maximum capacity of 0.75 units per hour and uses less than five (5) gallons of coating per day, applying polish, cleaners, and markers to metal, plastic, and wood substrates, ~~utilizing no control devices via aerosol cans and brush coating.~~
- (k) **One (1) travel trailer assembly line, identified as Plant 22, constructed in 2011, approved in 2016 for modification, with a maximum capacity of 2.5 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:**
  - (1) **One (1) chassis preparation operation, identified as CP22, applying a rubberized undercoating to metal substrates via brush coating.**
  - (2) **One (1) assembly line operation, identified as ALO22, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.**
  - (3) **One (1) touch-up paint operation, identified as TP22, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.**
  - (4) **One (1) final finish operation, identified as FF22, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.**

Plant 69A / 69B (2929 Gateway Drive, Elkhart, IN 46514)

- (am) One (1) ~~chassis preparation operation~~ **travel trailer assembly line**, identified as ~~CP69A/69B~~, approved for construction ~~Plant 69A~~, constructed in 2011, with a maximum capacity of 2.000 units per hour and uses, less than five (5) gallons of coating per day, **utilizing no control devices, exhausting within the building, and consisting of the following:**
  - (1) **One (1) chassis preparation operation, identified as CP69A, applying a rubberized undercoating to metal substrates, utilizing no control devices via brush coating.**
  - (b) ~~Two (2) One (1) assembly line operations~~ **operation**, identified as ALO69A and ALO69B approved for construction in 2011, with a maximum capacity of 2.00 units per hour, each, applying various coatings to metal, wood, fabric, and plastic substrates via **brush and** flow coating, ~~utilizing no control devices.~~
  - (e3) One (1) touch-up paint operation, identified as ~~TP69A/69B~~, approved for construction in 2011, with a maximum capacity of 2.00 units per hour and uses less than five (5) gallons of coating per day, applying paint **various coatings** to metal, **wood, fabric, and plastic** substrates, ~~utilizing no control devices via aerosol cans and HVLP guns.~~

<p>(d4) One (1) final finish operation, identified as FF69A/69B, approved for construction in 2011, with a maximum capacity of 2.00 units per hour and uses less than five (5) gallons of coating per day, applying polish, cleaners, and markers to metal, plastic, and wood substrates, utilizing no control devices via aerosol cans and brush coating.</p> <p>(n) One (1) travel trailer assembly line, identified as Plant 69B, constructed in 2011, with a maximum capacity of 2.0 units per hour, utilizing no control devices, exhausting within the building, and consisting of the following:</p> <p>(1) One (1) chassis preparation operation, identified as CP69B, applying a rubberized undercoating to metal substrates via brush coating.</p> <p>(2) One (1) assembly line operation, identified as ALO69B, applying various coatings to metal, wood, fabric, and plastic substrates via brush and flow coating.</p> <p>(3) One (1) touch-up paint operation, identified as TP69B, applying various coatings to metal, wood, fabric, and plastic substrates via aerosol cans and HVLP guns.</p> <p>(4) One (1) final finish operation, identified as FF69B, applying polish, cleaners, and markers to metal, plastic, and wood substrates via aerosol cans and brush coating.</p> <p>(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)</p>
--

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 FESOP Limitations Limits [326 IAC 2-8-4(1)] [326 IAC 2-4.1] [326 IAC 2-2] [40 CFR 63]

Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-4.1 (MACT) Major Sources of Hazardous Air Pollutants (HAP) not applicable, the source Permittee shall comply with the following:

- (a) The combined total input volatile organic compounds (of VOC) including solvents, coatings, and adhesives delivered to the emission units listed in the table below shall be limited to less than or equal to, **including coatings, dilution solvents, and cleaning solvents, shall not exceed** 98.75 tons per twelve (12) consecutive month period with compliance determined at the end of each month:
- (b) The combined total input hazardous air pollutants (HAP) delivered of **Hexane** to the emission units listed in the table below shall be limited such that input of any single HAP shall not exceed, **including coatings, dilution solvents, and cleaning solvents, shall be less than** 9.74 tons per twelve (12) consecutive month period with compliance determined at the end of each month:
- (c) **The total input of HAP to the emission units listed in the table below, including coatings, dilution solvents, and cleaning solvents, shall be less than twenty-three (23.0) tons per twelve (12) consecutive month period:**

Plant ID	Emission Units	
Plant 2	CP2	TP2
	ALO2	FF2
Plant 7A/ 7B	CP7A/7B,	TP7A
	ALO7A	FF7A/7B

Plant 467B	<b>CP7B</b> ALO7BCP46 ALO46	<del>TP46</del> <b>FF46TP7B</b> <b>FF7B</b>
Plant 17/48	CP17/48 ALO17	TP17 FF17/48
<b>Plant 18</b>	<b>CP18</b> <b>ALO18</b>	<b>TP18</b> <b>FF18</b>
<del>Plants</del> <b>Plant</b> 21, 22, 23	CP21/22/23 ALO21/22/23	TP21/22/23 FF21/22/23
<b>Plant 22</b>	<b>CP22</b> <b>ALO22</b>	<b>TP22</b> <b>FF22</b>
Plant 69A/69B	CP69A/69B ALO69A	TP69A FF69A/69B
<b>Plant 69B</b>	<b>CP69B</b> <b>ALO69B</b>	<b>TP69B</b> <b>FF69B</b>

Compliance with these limits, combined with the potential to emit VOC, **any single HAP**, and **total HAPs** from all other emission units at this source, shall limit the source-wide total potential to emit of VOC to less than **one-hundred (100) tons per twelve (12) consecutive month period**, any single HAP to less than ten (10) tons per twelve (12) consecutive month period, ~~and~~ **the total HAPs to less than twenty-five (25) tons per twelve (12) consecutive month period**, and shall render **the requirements of 326 IAC 2-7 (Part 70-Permits), 326 IAC 2-2 (PSD), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAPs))** not applicable, **and this source is an area source of HAP emissions under Section 112 of the Clean Air Act (CAA).**

~~D.1.2~~ **D.1.2 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]**

**When coating a substrate not subject to the requirements of a rule under 326 IAC 8, in order to render the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable, the use of VOC, including coatings, dilution solvents, and cleaning solvents from Plant 2, Plant 7A, Plant 7B, Plant 21, Plant 22, Plant 69A, and Plant 69B, shall be limited to less than twenty-five (25.0) tons per twelve (12) consecutive month period, each, with compliance determined at the end of each month. Compliance with this limit shall render the requirements of 326 IAC 8-1-6 not applicable.**

**D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

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

**Compliance Determination Requirements [326 IAC 2-8-4(1)]**

~~D.1.34~~ **D.1.34 Volatile Organic Compounds (VOC) [326 IAC 8-1-24][326 IAC 8-1-4]2(a)]**

Compliance with the VOC **usage** limitations contained in ~~Condition~~ **Conditions D.1.1 and D.1.2-4** shall be ~~determined~~ **determined** pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets- **(or MSDS)**. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in ~~conjunction~~ **conjunction** with the analytical procedures specified in 326 IAC 8-1-4.

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

**D.1.45 Record Keeping Requirements**

- (a) To document the compliance status with ~~Condition~~ **Conditions D.1.1 and D.1.2**, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC ~~content~~ **and HAPs usage** limits established in ~~Condition~~ **Conditions D.1.1 and D.1.2**. Records necessary to demonstrate compliance

shall be available ~~not later than~~ **within thirty (30)** days of the end of each compliance period.

- (1) The VOC, **Hexane, and total HAP** content of each coating material and solvent used.
  - (2) The amount of coating material and solvent ~~less water~~ used on a monthly basis.
    - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
    - (B) Solvent usage records shall differentiate between those added to ~~coat-~~  
**ingscoatings** and those used as cleanup solvents.
  - (3) The cleanup solvent usage for each month;
  - (4) The ~~total~~ VOC, **Hexane, and total HAP** usage for each month; and
  - (5) The ~~total~~-weight of VOC, **Hexane, and total HAP** emitted for each compliance period.
- (b) Section C - General Record Keeping Requirements contains the Permittee's ~~obligation~~ **obligation** with regard to the records required by this condition.

#### D.1.56 Reporting Requirements

---

A quarterly summary of the information to document the compliance status with ~~Condition~~ **Conditions D.1.1 and D.1.2** shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report ~~submitted by the Permittee~~ does require a certification that ~~meets~~ **meets** the requirements of 326 IAC 2--8--5(a)(1) by the ~~"an~~ "authorized individual" as defined by 326 IAC 2--1.1--1(1).

#### Modifications to Section D.2

- (a) Condition D.2 Emissions Unit Description box has been revised as follows:
  - (1) Plant 16 and Plant 23 have been removed from the source.
  - (2) All of the baghouses located at the source are considered to be an Integral Part of the Process as described in an appeal filed by Kimball Hospitality Furniture Inc. (Cause Nos. 92-A-J-730 and 92-A-J-833).
  - (3) Plant 7 has two cabinet and molding assembly operations, identified as WW7A and WW7B.
  - (4) The potential to emit from the Miscellaneous Machining PM Equipment (MPE17/18) and (MPE 12) is less than 0.551 pound per hour. Therefore, pursuant to 326 IAC 6-3-1(b)(14), the requirements of 326 IAC 6-3-2 do not apply and these units have been removed from Section D.2.
- (b) Existing Condition D.1 Particulate Emission Limitations has been removed because the potential to emit from each of the cabinet and molding assembly operation emission units is less than 0.551 pound per hour after control. Therefore, pursuant to 326 IAC 6-3-1(b)(14), the requirements of 326 IAC 6-3-2 do not apply.
- (c) After discussions with EPA, OAQ decided to add a rule cite for the Compliance

Determination Requirements subsection title in the Section D.2. The addition of this rule cite is to satisfy EPA's concerns. IDEM has added a citation to 326 IAC 2-8-4(1) to the Compliance Determination subheading in Section D.2. The FESOP Compliance Monitoring Requirements cite have been changed from 326 IAC 2-8-4 and 326 IAC 2-8-5(1) to 326 IAC 2-8-4(1) and 326 IAC 2-8-5(1) to match the other rule cites.

- (d) Condition D.2.2 Particulate Control and Condition D.2.3 Baghouse Inspections have been revised to update to IDEM model language.

The permit has been revised as follows:

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Plant 2 (1001 All Pro Drive, Elkhart, IN 46514)

- (eb) One (1) cabinet and molding assembly operation, identified as WW2, constructed in 2005, controlled by **integral** baghouse 2DC-01, exhausting within the building, ~~and consisting of multiple sanders, saws, and routers,~~ each with a maximum throughput rate of 400 lbs/hr. **and consisting of the following:**
- (f1) One (1) PVC chop saw, identified as 2CS1, constructed in 2006, with a maximum capacity of 10 cuts per hour, ~~utilizing no control device, and exhausting within the building.~~
  - (g2) Two (2) aluminum chop saws, identified as 2CS2 and 2CS3, constructed in 2006, with a combined maximum capacity of 10 cuts per hour, ~~utilizing no control devices, and exhausting within the building.~~
  - (h3) Four (4) wood chop saws, identified as 2CS4 through 2CS7, constructed in 2006, with a combined maximum capacity of 20 cuts per hour, ~~utilizing no control devices, and exhausting within the building.~~
  - (i4) Two (2) drill presses, identified as 2DP1 and 2DP2, constructed in 2006, with a combined maximum capacity of 5 pieces per hour, ~~utilizing no control devices, and exhausting within the building.~~
  - (j5) Six (6) hand routers, identified as 2HR1 through 2HR6, constructed in 2006, with a combined maximum capacity of 120 feet per hour, ~~utilizing no control devices, and exhausting within the building.~~

Plant 7A / 7B (1001 All Pro Drive, Elkhart, IN 46514)

- (ed) One (1) cabinet and molding assembly operation, identified as WW7A/7B, ~~approved for construction,~~ **constructed** in 2011, controlled by **integral** baghouse ~~7A/7BDC7ADC-01,~~ exhausting within the building, ~~and consisting of multiple sanders, saws, and routers,~~ each with a maximum throughput rate of 400 lbs/hr. **and consisting of the following:**
- (f1) One (1) PVC chop saw, identified as 7ACS1, ~~approved for construction~~ **constructed** in 2011, with a maximum capacity of 10 cuts per hour, ~~utilizing no control device, and exhausting within the building.~~
  - (g2) Two (2) aluminum chop saws, identified as 7ACS2 and 7ACS-3, ~~approved for~~

- ~~construction~~**constructed** in 2011, with a combined maximum capacity of 10 cuts per hour, ~~utilizing no control devices, and exhausting within the building.~~
- (h3) Four (4) wood chop saws, identified as 7ACS4 through 7ACS8, ~~approved for construction~~**constructed** in 2011, with a combined maximum capacity of 20 cuts per hour, ~~utilizing no control devices, and exhausting within the building.~~
- (i4) Two (2) drill presses, identified as 7ADP1 and 7ADP2, ~~approved for construction~~**constructed** in 2011, with a combined maximum capacity of 5 pieces per hour, ~~utilizing no control devices, and exhausting within the building.~~
- (j5) Six (6) hand routers, identified as 7AHR1 through 7AHR6, ~~approved for construction~~**constructed** in 2011, with a combined maximum capacity of 120 feet per hour, ~~utilizing no control devices, and exhausting within the building.~~
- (f) **One (1) cabinet and molding assembly operation, identified as WW7B, constructed in 2011, controlled by integral baghouse 7BDC-01, exhausting within the building, each with a maximum throughput rate of 400 lbs/hr and consisting of the following:**
- (1) **One (1) PVC chop saw, identified as 7BCS1, constructed in 2011, with a maximum capacity of 10 cuts per hour.**
- (2) **Two (2) aluminum chop saws, identified as 7BCS2 and 7BCS-3, constructed in 2011, with a combined maximum capacity of 10 cuts per hour.**
- (3) **Four (4) wood chop saws, identified as 7BCS4 through 7BCS8, constructed in 2011, with a combined maximum capacity of 20 cuts per hour.**
- (4) **Two (2) drill presses, identified as 7BDP1 and 7BDP2, constructed in 2011, with a combined maximum capacity of 5 pieces per hour.**
- (5) **Six (6) hand routers, identified as 7BHR1 through 7BHR6, constructed in 2011, with a combined maximum capacity of 120 feet per hour.**

Plant 12 (1111 All Pro Drive, Elkhart, IN 46514)

- (ag) One (1) cabinet and molding assembly operation, identified as ~~WWE12~~**WW12**, approved for construction in 2011, and consisting of the following:
- (1) Two (2) 6 inch edge sanders, each with a maximum capacity of 150 lbs per hour, controlled by **integral** baghouse 12DC-~~0406~~, and exhausting within the building.
- (2) Four (4) 12 inch chop saws, each with a maximum capacity of 50 lbs per hour, controlled by **integral** baghouse 12DC-01, and exhausting within the building.
- (3) One (1) 10 inch band saw, with a maximum capacity of 200 lbs per hour, controlled by **integral** baghouse 12DC-01, and exhausting within the building.
- (4) Two (2) 12 inch table saws, each with a maximum capacity of 100 lbs per hour, controlled by **integral** baghouse 12DC-02, and exhausting within the building.

- (5) One (1) panel saw, with a maximum capacity of 200 lbs per hour, controlled by **integral** baghouse 12DC-02, and exhausting within the building.
  - (6) One (1) CNC router, with a maximum capacity of 600 lbs per hour, controlled by **integral** baghouse 12DC-03, and exhausting within the building.
  - (7) One (1) CNC router, with a maximum capacity of 600 lbs per hour, controlled by **integral** baghouse 12DC-04, and exhausting within the building.
  - (8) One (1) CNC router, identified as CNC3, approved for construction in 2013, with a maximum capacity of 600 lbs per hour, equipped with an integral baghouse 12DC-0305, and exhausting within the building.
- (b) ~~One (1) manual sanding operation, identified as MPE12, approved for construction in 2011, with a maximum capacity of 200 feet per hour, utilizing no control devices, and exhausting within the building.~~

**Plant 16 (1330 Wade Drive, Elkhart, IN 46514)**

- (e) ~~One (1) cabinet and molding assembly operation, identified as WW16, approved for construction in 2011, controlled by baghouse 16DC-01, exhausting within the building, and consisting of multiple sanders, saws, and routers, each with a maximum throughput rate of 300 lbs/hr.~~
- (f) ~~One (1) PVC chop saw, identified as 16CS1, approved for construction in 2011, with a maximum capacity of 10 cuts per hour, utilizing no control device, and exhausting within the building.~~
- (g) ~~One (1) table router, identified as 16TR1, approved for construction in 2011, with a maximum capacity of 20 cuts per hour, utilizing no control devices, and exhausting within the building.~~
- (h) ~~Four (4) wood chop saws, identified as 16CS2 through 16CS5, approved for construction in 2011, with a combined maximum capacity of 20 cuts per hour, utilizing no control devices, and exhausting within the building.~~
- (i) ~~Two (2) drill presses, identified as 16DP1 and 16DP2, approved for construction in 2011, with a combined maximum capacity of 5 pieces per hour, utilizing no control devices, and exhausting within the building.~~
- (j) ~~Four (4) hand routers, identified as 16HR1 through 16HR4, approved for construction in 2011, with a combined maximum capacity of 80 feet per hour, utilizing no control devices, and exhausting within the building.~~

**Plant 17 / 18 (1110 CR 6 West, Elkhart, IN 46514)**

- (e) ~~One (1) PVC chop saw, identified as 17/18CS1, approved for construction in 2011, with a maximum capacity of 10 cuts per hour, utilizing no control device, and exhausting within the building.~~
- (f) ~~One (1) table saw, identified as 17/18TS1, approved for construction in 2011, with a maximum capacity of 10 cuts per hour, utilizing no control devices, and exhausting within the building.~~
- (g) ~~Four (4) wood chop saws, identified as 17/18CS2 through 17/18CS5, approved for construction in 2011, with a combined maximum capacity of 10 cuts per hour, utilizing no control devices, and exhausting within the building.~~

- (h) ~~Four (4) hand routers, identified as 17/18HR1 through 17/18HR4, approved for construction in 2011, with a combined maximum capacity of 80 feet per hour, utilizing no control devices, and exhausting within the building.~~

**PlantPlants 21, / 22, 23 (2950 Paul Drive, & 2824 Paul Drive, & 2946 Jami Drive, Elkhart, IN 46514)**

- (e) One (1) cabinet and molding assembly operation, identified as WW21/22/23, ~~approved for construction,~~ **constructed** in 2011, controlled by **integral** baghouse 21DC-01, exhausting within the building, ~~and consisting of multiple sanders, saws, and routers,~~ each with a maximum throughput rate of ~~300~~**750** lbs/hr- **and consisting of the following:**
- (f1) One (1) PVC chop saw, identified as 21CS1, ~~approved for construction~~**constructed** in 2011, with a maximum capacity of 10 cuts per hour, ~~utilizing no control device, and exhausting within the building.~~
  - (g2) Three (3) table saws, identified as 21TS1 through 21TS3, ~~approved for construction~~**constructed** in 2011, with a combined maximum capacity of 10 cuts per hour, ~~utilizing no control devices, and exhausting within the building.~~
  - (h3) Four (4) wood chop saws, identified as 21CS2 through 21CS5, ~~approved for construction~~**constructed** in 2011, with a combined maximum capacity of 8 cuts per hour, ~~utilizing no control devices, and exhausting within the building.~~
  - (i4) One (1) drill press, identified as 21DP1, ~~approved for construction~~**constructed** in 2011, with a combined maximum capacity of 2.5 pieces per hour, ~~utilizing no control devices, and exhausting within the building.~~
  - (j5) Four (4) hand routers, identified as 21HR1 through 21HR4, ~~approved for construction~~**constructed** in 2011, with a combined maximum capacity of 80 feet per hour, ~~utilizing no control devices, and exhausting within the building.~~

**Plant 69A / 69B (2929 Gateway Drive, Elkhart, IN 46514)**

- (eo) One (1) cabinet and molding assembly operation, identified as WW69A/69B, ~~approved for construction~~**constructed** in 2011, controlled by **integral** baghouse 69DC-01, exhausting within the building, ~~and consisting of multiple sanders, saws, and routers,~~ each with a maximum throughput rate of 400 lbs/hr. **and consisting of the following:**
- (f1) One (1) PVC chop saw, identified as 69CS1, ~~approved for construction~~**constructed** in 2011, with a maximum capacity of 10 cuts per hour, ~~utilizing no control device, and exhausting within the building.~~
  - (g2) Three (3) table saws, identified as 69TS1 through 69TS3, ~~approved for construction~~**constructed** in 2011, with a combined maximum capacity of 10 cuts per hour, ~~utilizing no control devices, and exhausting within the building.~~
  - (h3) Seven (7) wood chop saws, identified as 69CS2 through 69CS8, ~~approved for construction~~**constructed** in 2011, with a combined maximum capacity of 20 cuts per hour, ~~utilizing no control devices, and exhausting within the building.~~
  - (i4) Two (2) drill presses, identified as 69DP1 and 69DP2, ~~approved for construction~~**constructed** in 2011, with a combined maximum capacity of 5

pieces per hour, utilizing no control devices, and exhausting within the building.

(j5) Four (4) hand routers, identified as 69HR1 through 69HR4, approved for construction constructed in 2011, with a combined maximum capacity of 80 feet per hour, utilizing no control devices, and exhausting within the building.

(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 2-8-4(1)]

D.2.1 Particulate Emission Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, particulate emissions from each of following operations shall not exceed the pound per hour limit listed in the table below:

Unit ID	Control ID	Process/Unit Description	Max. Throughput Rate (tons/hr)	Particulate Emission Limit (lbs/hr)
<b>Plant 2</b>				
WW2	2DC-01	Cabinet and Molding Assembly	0.20 (each)	1.39 (each)
2CS4	None	PVC Chop Saw	0.20	1.39
2CS2, 2CS3	None	Aluminum Chop Saws	0.20 (each)	1.39 (each)
2CS4, 2CS5, 2CS6, 2CS7	None	Wood Chop Saws	0.20 (each)	1.39 (each)
2DP1, 2DP2	None	Drill Presses	0.20 (each)	1.39 (each)
<b>Plants 7A/7B</b>				
WW7A/7B	7A/7BDC-01	Cabinet and Molding Assembly	0.20 (each)	1.39 (each)
7ACS4	None	PVC Chop Saw	0.20	1.39
7ACS2, 7ACS3	None	Aluminum Chop Saws	0.20 (each)	1.39 (each)
7ACS4, 7ACS5, 7ACS6, 7ACS7	None	Wood Chop Saws	0.20 (each)	1.39 (each)
7ADP1, 7ADP2	None	Drill Presses	0.20 (each)	1.39 (each)
7AHR1, 7AHR2, 7AHR3, 7AHR4, 7AHR5, 7AHR6	None	Hand Routers	0.20 (each)	1.39 (each)
<b>Plant 12</b>				
WW12		Cabinet and Molding Assembly		
N/A	12DC-01	(2) 6" Edge Sanders (4) 12" Chop Saws (1) 10" Band Saw	0.15 (each)	1.15 (each)
N/A	12DC-02	(2) 12" Table Saws (1) Panel Saw	0.15 (each)	1.15 (each)
N/A	12DC-03	(1) CNC Router	0.15 (each)	1.15 (each)
N/A	12DC-04	(1) CNC Router	0.15 (each)	1.15 (each)
<b>Plant 16</b>				
WW16	16DC-01	Cabinet and Molding Assembly	0.15 (each)	1.15 (each)
16CS1	None	PVC Chop Saw	0.15	1.15
16TR1	None	Table Router	0.15	1.15
16CS2, 16CS3, 16CS4, 16CS5	None	Wood Chop Saws	0.15 (each)	1.15 (each)
16DP1, 16DP2	None	Drill Presses	0.15 (each)	1.15 (each)
16HR1, 16HR2, 16HR3, 16HR4	None	Hand Routers	0.15 (each)	1.15 (each)
<b>Plants 17/18</b>				
17/18CS1	None	PVC Chop Saw	0.15	1.15
17/18TS1	None	Table Saw	0.15	1.15
17/18CS2, 17/18CS3, 17/18CS4, 17/18CS5	None	Wood Chop Saws	0.15 (each)	1.15 (each)
17/18HR1, 17/18HR2, 17/18HR3, 17/18HR4	None	Hand Routers	0.15 (each)	1.15 (each)

Unit ID	Control ID	Process/Unit-Description	Max. Throughput Rate (tons/hr)	Particulate Emission Limit (lbs/hr)
<b>Plant 2</b>				
WW2	2DC-01	Cabinet and Molding Assembly	0.20 (each)	1.39 (each)
2CS1	None	PVC Chop Saw	0.20	1.39
2CS2, 2CS3	None	Aluminum Chop Saws	0.20 (each)	1.39 (each)
<b>Plants 21/22/23</b>				
WW21/22/23	21DC-01	Cabinet and Molding Assembly	0.15 (each)	1.15 (each)
21CS1	None	PVC Chop Saw	0.15	1.15
21TS1, 21TS2, 21TS3	None	Table Saws	0.15 (each)	1.15 (each)
21CS2, 21CS3, 21CS4, 21CS5	None	Wood Chop Saws	0.15 (each)	1.15 (each)
21DP1	None	Drill Press	0.15	1.15
21HR1, 21HR2, 21HR3, 21HR4	None	Hand Routers	0.15 (each)	1.15 (each)
<b>Plants 69A/69B</b>				
WW69A/69B	69DC-01	Cabinet and Molding Assembly	0.20 (each)	1.39 (each)
69CS1	None	PVC Chop Saw	0.20	1.39
69TS1, 69TS2, 69TS3	None	Table Saws	0.20 (each)	1.39 (each)
69CS2, 69CS3, 69CS4, 69CS5 69CS6, 69CS7, 69CS8	None	Wood Chop Saws	0.20 (each)	1.39 (each)
69DP1, 69DP2	None	Drill Presses	0.20 (each)	1.39 (each)
69HR1, 69HR2, 69HR3, 69HR4	None	Hand Routers	0.20 (each)	1.39 (each)

The pounds per hour limitations were calculated using the following equation:

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

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

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

**D.2.2—Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

A Preventive Maintenance Plan is required for the cabinet and molding operations identified as WW2, WW7A/7B, WW12, WW16, WW21/22/23, and WW69A/69B and their **these facilities and any** control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

**Compliance Determination Requirements [326 IAC 2-8-4(1)]**

**D.2.32 Particulate Control**

(a) In order to comply with Condition D.2.1, assure the **woodworking operations in WW2, WW7A, WW7B, WW12, WW21/22, and WW69A/69B are exempt from the requirements of 326 IAC 6-3-2, integral baghouses 2DC-01, 7ADC-01, 7BDC-02, 12DC-01, 12DC-02, 12DC-03, 12DC-04, 12DC-05, 12DC-06, 21DC-01, and 69DC-01** for particulate control shall be in operation and control emissions from the emission units **woodworking operations** at all times that the emission units **woodworking operations** are in operation as listed in the table below, when these units are in operation:

Unit ID	Process-Description	Baghouse-IDs
WW2	Cabinet and Molding Assembly	2DC-01
WW7A/7B	Cabinet and Molding Assembly	7A/7BDC-01
WW12	Cabinet and Molding Assembly	12DC-01, 12DC-02 12DC-03, 12DC-04,
WW16	Cabinet and Molding Assembly	16DC-01
WW21/22/23	Cabinet and Molding Assembly	21DC-01
WW69A/69B	Cabinet and Molding Assembly	69DC-01

~~(b) In order to ensure CNC3 is exempt from the requirements of 326 IAC 6-3-2, the baghouse for shall be in operation and control emissions at all times that CNC3 is in operation.~~

~~(c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.~~

#### Compliance Monitoring Requirements [326 IAC 2-8-4~~H(1)~~][326 IAC 2-8-5(a)(1)]

##### D.2.43 Baghouse Inspections

---

~~An inspection of all bags~~ **The Permittee shall be performed each calendar quarter perform quarterly inspections of all bags the integral baghouses 2DC-01, 7ADC-01, 7BDC-02, 12DC-01, 12DC-02, 12DC-03, 12DC-04, 12DC-05, 12DC-06, 21DC-01, and 69DC-01 controlling particulate from the cabinet and molding assembly woodwork operations (in WW2, WW7A/7B, WW7B, WW12, WW16, WW21/22/23, and WW69A/69B) to verify that it is being operated and maintained in accordance with the manufacturer's specifications.** Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

##### D.2.54 Broken or Failed Bag Detection - Baghouse

- 
- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the ~~baghouse's~~ **baghouse's** pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

#### Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

##### D.2.65 Record Keeping Requirements

- 
- (a) To document the compliance status with Condition D.2.43, the Permittee shall maintain records of the **dates and** results of the ~~quarterly bag~~ inspections.
- (b) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

#### Modifications to Forms

- (a) The FESOP Quarterly Report for the VOC 98.75 tons limit and the FESOP Quarterly Report for the Single HAP 9.74 tons limit have been revised for clarity.
- (b) The FESOP Quarterly Report for Total HAPs has been added to the permit because the source must keep records of the twenty-three (23) tons per twelve (12) consecutive month period limit in

order to render the source as an area source of HAP emissions under Section 112 of the Clean Air Act (CAA).

- (c) The FESOP Quarterly Reports for Plant 2, Plant 7, Plant 21, Plant 22, and Plant 69 have been added to the permit because the source must keep records of the twenty-five (25.0) tons per twelve (12) consecutive month period limit in order to render the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable.

The permit has been revised as follows:

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

**FESOP Quarterly Report**

Source Name: Heartland Recreational Vehicles, LLC  
 Source Address: 1001 All Pro Drive, Elkhart, Indiana 46514  
 FESOP Permit No.: F039-29849-00621  
 Facility: ~~See Table Below~~  
**Facilities: Plant 2, Plant 7, Plant 17, Plant 18, Plant 21, Plant 22, and Plant 69**  
 Parameter: ~~VOC Input~~**Usage**  
 Limit: ~~The combined total input volatile organic compounds (VOC) including solvents, coatings, and adhesives delivered to the emission units listed in the table below shall be limited to Less than or equal to 98.75 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.~~

**QUARTER:** \_\_\_\_\_ **YEAR:** \_\_\_\_\_

Plant ID Month	Emission Units VOC Usage (tons)	VOC Usage (tons)	VOC Usage (tons)
Plant 2	CP2 ALO2	TP2 FF2	
Plant 7A / 7B	CP7A/7B, ALO7A	ALO7B TP7A/7B	FF7A/7B
Plant 16	CP16 ALO16	TP16 FF16	
Plant 17/18	CP17/18 ALO17	ALO18 TP17/18	FF17/18
Plants 21, 22, 23	CP21/22/23 ALO21/22/23	TP21/22/23 FF21/22/23	
Plant 69A/69B	CP69A/69B ALO69A	ALO69B TP69A/69B	FF69A/69B

**YEAR:** \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			

Month 2			
Month 3			

- \_\_\_\_\_  No deviation occurred in this quarter/month.
- \_\_\_\_\_   
 Deviation/s occurred in this quarter/month.  
 Deviation has been reported on: \_\_\_\_\_:

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

FESOP Quarterly Report

Source Name: Heartland Recreational Vehicles, LLC  
 Source Address: 1001 All Pro Drive, Elkhart, Indiana 46514  
 FESOP Permit No.: F039-29849-00621  
 Facility: \*See Table Below  
**Facilities: Plant 2, Plant 7, Plant 17, Plant 18, Plant 21, Plant 22, and Plant 69**  
 Parameter: Single HAP Input  
 Limit: The combined total input hazardous air pollutants (HAP) delivered to the emission units listed in the table below shall be limited such that input of any single HAP shall not exceed **Less than** 9.74 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Plant ID Month	Emission Units Single HAP Usage (tons)	Single HAP Usage (tons)	Single HAP Usage (tons)
Plant 2	CP2	TP2	

	ALO2	FF2	
Plant 7A / 7B	CP7A/7B, ALO7A	ALO7B TP7A/7B	FF7A/7B
Plant 16	CP16 ALO16	TP16 FF16	
Plant 17/18	CP17/18 ALO17	ALO18 TP17/18	FF17/18
Plants 21, 22, 23	CP21/22/23 ALO21/22/23	TP21/22/23 FF21/22/23	
Plant 69A/69B	CP69A/69B ALO69A	ALO69B TP69A/69B	FF69A/69B

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

\_\_\_\_\_  No deviation occurred in this quarter month.

\_\_\_\_\_   
 Deviation/s occurred in this quarter month.  
 Deviation has been reported on: \_\_\_\_\_:

Submitted by: \_\_\_\_\_

\_\_\_\_\_  
 Title / Position:

\_\_\_\_\_  
 Signature:

\_\_\_\_\_  
 Date:

\_\_\_\_\_  
 Phone:

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

**FESOP Quarterly Report**

**Source Name:** Heartland Recreational Vehicles, LLC  
**Source Address:** 1001 All Pro Drive, Elkhart, Indiana 46514  
**FESOP Permit No.:** F039-29849-00621  
**Facilities:** Plant 2, Plant 7, Plant 17, Plant 18, Plant 21, Plant 22, and Plant 69  
**Parameter:** Total HAPs  
**Limit:** Less than twenty-three (23) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Total HAP Usage (tons)	Total HAP Usage (tons)	Total HAP Usage (tons)
	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this month.
- Deviation/s occurred in this month.  
 Deviation has been reported on: \_\_\_\_\_

**Submitted by:** \_\_\_\_\_  
**Title/Position:** \_\_\_\_\_  
**Signature:** \_\_\_\_\_  
**Date:** \_\_\_\_\_  
**Phone:** \_\_\_\_\_

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

**FESOP Quarterly Report**

**Source Name:** Heartland Recreational Vehicles, LLC  
**Source Address:** 1001 All Pro Drive, Elkhart, Indiana 46514  
**FESOP Permit No.:** F039-29849-00621  
**Facilities:** Plant 2  
**Parameter:** VOC Usage  
**Limit:** Less than twenty-five (25.0) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	VOC Usage (tons)		VOC Usage (tons)	
	This Month		Previous 11 Months	
	Plant 2		Plant 2	

- No deviation occurred in this month.
- Deviation/s occurred in this month.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

**FESOP Quarterly Report**

**Source Name:** Heartland Recreational Vehicles, LLC  
**Source Address:** 1001 All Pro Drive, Elkhart, Indiana 46514  
**FESOP Permit No.:** F039-29849-00621  
**Facilities:** Plant 7  
**Parameter:** VOC Usage  
**Limit:** Less than twenty-five (25.0) tons per twelve (12) consecutive month period, each, with compliance determined at the end of each month.

**QUARTER:** \_\_\_\_\_ **YEAR:** \_\_\_\_\_

Month	VOC Usage (tons)		VOC Usage (tons)		VOC Usage (tons)	
	This Month		Previous 11 Months		12 Month Total	
	Plant 7A	Plant 7B	Plant 7A	Plant 7B	Plant 7A	Plant 7B


- No deviation occurred in this month.
- Deviation/s occurred in this month.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

**FESOP Quarterly Report**

**Source Name:** Heartland Recreational Vehicles, LLC  
**Source Address:** 1001 All Pro Drive, Elkhart, Indiana 46514  
**FESOP Permit No.:** F039-29849-00621  
**Facilities:** Plant 21  
**Parameter:** VOC Usage  
**Limit:** Less than twenty-five (25.0) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

**QUARTER:** \_\_\_\_\_ **YEAR:** \_\_\_\_\_

Month	VOC Usage (tons)	VOC Usage (tons)	VOC Usage (tons)
	This Month	Previous 11 Months	12 Month Total
	Plant 21	Plant 21	Plant 21

- No deviation occurred in this month.
- Deviation/s occurred in this month.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

**FESOP Quarterly Report**

Source Name: Heartland Recreational Vehicles, LLC  
 Source Address: 1001 All Pro Drive, Elkhart, Indiana 46514  
 FESOP Permit No.: F039-29849-00621  
 Facilities: Plant 22  
 Parameter: VOC Usage  
 Limit: Less than twenty-five (25.0) tons per twelve (12) consecutive month period,  
 with compliance determined at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	VOC Usage (tons)	VOC Usage (tons)	VOC Usage (tons)
	This Month	Previous 11 Months	12 Month Total
	Plant 22	Plant 22	Plant 22

No deviation occurred in this month.

Deviation/s occurred in this month.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

**OFFICE OF AIR QUALITY  
 COMPLIANCE AND ENFORCEMENT BRANCH**

**FESOP Quarterly Report**

**Source Name:** Heartland Recreational Vehicles, LLC  
**Source Address:** 1001 All Pro Drive, Elkhart, Indiana 46514  
**FESOP Permit No.:** F039-29849-00621  
**Facilities:** Plant 69  
**Parameter:** VOC Usage  
**Limit:** Less than twenty-five (25.0) tons per twelve (12) consecutive month period, each, with compliance determined at the end of each month.

**QUARTER:** \_\_\_\_\_ **YEAR:** \_\_\_\_\_

Month	VOC Usage (tons)		VOC Usage (tons)		VOC Usage (tons)	
	This Month		Previous 11 Months		12 Month Total	
	Plant 69A	Plant 69B	Plant 69A	Plant 69B	Plant 69A	Plant 69B

- No deviation occurred in this month.
- Deviation/s occurred in this month.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

**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 November 2, 2015.

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed FESOP Significant Permit Revision No. 039-36439-00621. The staff recommends to the Commissioner that this FESOP Significant Permit Revision be approved.

<b>IDEM Contact</b>
---------------------

- (a) Questions regarding this proposed permit can be directed to Thomas Olmstead 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) 233-9664 or toll free at 1-800-451-6027 extension 3-9664.
- (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 Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

**Appendix A: Emission Calculations  
PTE Summary**

**Company Name:** Heartland Recreational Vehicles, LLC  
**Address City IN Zip:** 1001 All Pro Drive, Elkhart, IN 46514  
**Permit No./Pit ID:** 039-36439-00621  
**Reviewer:** Thomas Olmstead  
**Date:** February, 2016

Uncontrolled Potential to Emit (tons/yr)								
Emission Unit	PM	PM10	PM2.5 *	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Total HAPs
Plant 2 Assembly Line	0.07	0.07	0.07	--	--	25.23	--	4.95
Plant 7A Assembly Line	0.13	0.13	0.13	--	--	46.24	--	9.07
Plant 7B Assembly Line	0.13	0.13	0.13	--	--	46.24	--	9.07
Plant 17 Assembly Line	0.02	0.02	0.02	--	--	8.41	--	1.65
Plant 18 Assembly Line	0.02	0.02	0.02	--	--	8.41	--	1.65
Plant 21 Assembly Line	0.12	0.12	0.12	--	--	42.04	--	8.25
Plant 22 Assembly Line	0.12	0.12	0.12	--	--	42.04	--	8.25
Plant 69A Assembly Line	0.09	0.09	0.09	--	--	33.63	--	6.60
Plant 69B Assembly Line	0.09	0.09	0.09	--	--	33.63	--	6.60
Plant 6 Touch-up Paint Operation Line 1	0.00	0.00	0.00	--	--	0.06	--	0.02
Plant 6 Touch-up Paint Operation Line 2	0.00	0.00	0.00	--	--	0.06	--	0.02
Plant 11 Small Parts Lamination (SLO11A)	0.00E+00	0.00E+00	0.00E+00	--	--	2.92E-07	--	--
Plant 11 Small Parts Lamination (SLO11B)	0.00E+00	0.00E+00	0.00E+00	--	--	2.92E-07	--	--
Plant 12 Miscellaneous Machining Equipment (MPE12)	0.16	0.16	0.16	--	--	--	--	--
Plant 17/18 Miscellaneous Machining Equipment (MPE17/18)	1.05	1.05	1.05	--	--	--	--	--
Plant 19 Small Parts Lamination (SPL19)	0.00E+00	0.00E+00	0.00E+00	--	--	3.90E-07	--	--
Source Cabinet and Molding Assembly	4.25	4.25	4.25	--	--	--	--	--
Source Natural Gas Combustion	0.19	0.74	0.74	0.06	9.80	0.54	8.23	0.18
Source Welding and Thermal Cutting	4.35	4.35	4.35	--	--	--	--	1.68
<b>Total</b>	<b>10.80</b>	<b>11.36</b>	<b>11.36</b>	<b>0.06</b>	<b>9.80</b>	<b>286.51</b>	<b>8.23</b>	<b>57.97</b>

\* PM2.5 listed is direct PM2.5

Potential to Emit after Control (tons/yr)								
Emission Unit	PM	PM10	PM2.5 *	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Total HAPs
Plant 2 Assembly Line	0.07	0.07	0.07	--	--	25.23	--	4.95
Plant 7A Assembly Line	0.13	0.13	0.13	--	--	46.24	--	9.07
Plant 7B Assembly Line	0.13	0.13	0.13	--	--	46.24	--	9.07
Plant 17 Assembly Line	0.02	0.02	0.02	--	--	8.41	--	1.65
Plant 18 Assembly Line	0.02	0.02	0.02	--	--	8.41	--	1.65
Plant 21 Assembly Line	0.12	0.12	0.12	--	--	42.04	--	8.25
Plant 22 Assembly Line	0.12	0.12	0.12	--	--	42.04	--	8.25
Plant 69A Assembly Line	0.09	0.09	0.09	--	--	33.63	--	6.60
Plant 69B Assembly Line	0.09	0.09	0.09	--	--	33.63	--	6.60
Plant 6 Touch-up Paint Operation Line 1	0.00	0.00	0.00	--	--	0.06	--	0.02
Plant 6 Touch-up Paint Operation Line 2	0.00	0.00	0.00	--	--	0.06	--	0.02
Plant 11 Small Parts Lamination (SLO11A)	0.00E+00	0.00E+00	0.00E+00	--	--	2.92E-07	--	--
Plant 11 Small Parts Lamination (SLO11B)	0.00E+00	0.00E+00	0.00E+00	--	--	2.92E-07	--	--
Plant 12 Miscellaneous Machining Equipment (MPE12)	0.16	0.16	0.16	--	--	--	--	--
Plant 17/18 Miscellaneous Machining Equipment (MPE17/18)	1.05	1.05	1.05	--	--	--	--	--
Plant 19 Small Parts Lamination (SPL19)	0.00E+00	0.00E+00	0.00E+00	--	--	3.90E-07	--	--
Source Cabinet and Molding Assembly	4.25	4.25	4.25	--	--	--	--	--
Source Natural Gas Combustion	0.19	0.74	0.74	0.06	9.80	0.54	8.23	0.18
Source Welding and Thermal Cutting	4.35	4.35	4.35	--	--	--	--	1.68
<b>Total</b>	<b>10.80</b>	<b>11.36</b>	<b>11.36</b>	<b>0.06</b>	<b>9.80</b>	<b>286.51</b>	<b>8.23</b>	<b>57.97</b>

\* PM2.5 listed is direct PM2.5

Potential to Emit after Issuance (tons/yr)								
Emission Unit	PM	PM10	PM2.5 *	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Total HAPs
Plant 2 Assembly Line	0.07	0.07	0.07	--	--	98.75	--	23.00
Plant 7A Assembly Line	0.13	0.13	0.13	--	--		--	
Plant 7B Assembly Line	0.13	0.13	0.13	--	--		--	
Plant 17 Assembly Line	0.02	0.02	0.02	--	--		--	
Plant 18 Assembly Line	0.02	0.02	0.02	--	--		--	
Plant 21 Assembly Line	0.12	0.12	0.12	--	--		--	
Plant 22 Assembly Line	0.12	0.12	0.12	--	--		--	
Plant 69A Assembly Line	0.09	0.09	0.09	--	--		--	
Plant 69B Assembly Line	0.09	0.09	0.09	--	--		--	
Plant 6 Touch-up Paint Operation Line 1	0.00	0.00	0.00	--	--		0.06	
Plant 6 Touch-up Paint Operation Line 2	0.00	0.00	0.00	--	--	0.06	--	0.02
Plant 11 Small Parts Lamination (SLO11A)	0.00E+00	0.00E+00	0.00E+00	--	--	2.92E-07	--	--
Plant 11 Small Parts Lamination (SLO11B)	0.00E+00	0.00E+00	0.00E+00	--	--	2.92E-07	--	--
Plant 12 Miscellaneous Machining Equipment (MPE12)	0.16	0.16	0.16	--	--	--	--	--
Plant 17/18 Miscellaneous Machining Equipment (MPE17/18)	1.05E+00	1.05E+00	1.05E+00	--	--	--	--	--
Plant 19 Small Parts Lamination (SPL19)	0.00E+00	0.00E+00	0.00E+00	--	--	3.90E-07	--	--
Source Cabinet and Molding Assembly	4.25	4.25	4.25	--	--	--	--	--
Source Natural Gas Combustion	0.19	0.74	0.74	0.06	9.80	0.54	8.23	0.18
Source Welding and Thermal Cutting	4.35	4.35	4.35	--	--	--	--	1.68
<b>Total</b>	<b>10.80</b>	<b>11.36</b>	<b>11.36</b>	<b>0.06</b>	<b>9.80</b>	<b>99.40</b>	<b>8.23</b>	<b>24.90</b>

\* PM2.5 listed is direct PM2.5

Appendix A: Emission Calculations  
HAP Summary

Company Name: Heartland Recreational Vehicles, LLC  
Address City IN Zip: 1001 All Pro Drive, Elkhart, IN 46514  
Permit No./PI ID: 039-36439-00621  
Reviewer: Thomas Olmstead  
Date: February, 2016

Uncontrolled Potential to Emit (tons/yr)																		
Emission Unit	Xylene Emissions	Toluene Emissions	Formaldehyde Emissions	Benzene Emissions	Hexane Emissions	Glycol Ethers Emissions	Methanol Emissions	Ethyl Benzene Emissions	Hexamethylene-1,6 diisocyanate Emissions	MIBK Emissions	Dichlorobenzene Emissions	Lead Emissions	Cadmium Emissions	Chromium Emissions	Manganese Emissions	Nickel Emissions	Cobalt Emissions	Total HAP
Plant 2 Assembly Line	0.04	0.46	0.00	0.00	4.26	0.04	0.12	0.01	0.00	0.02	--	--	--	--	--	--	--	4.949614
Plant 7A Assembly Line	0.07	0.85	0.00	0.00	7.80	0.07	0.22	0.01	0.00	0.04	--	--	--	--	--	--	--	9.07
Plant 7B Assembly Line	0.07	0.85	0.00	0.00	7.80E+00	0.07	0.22	0.01	0.00	0.04	--	--	--	--	--	--	--	9.07
Plant 17 Assembly Line	0.01	0.15	0.00	0.00	1.42E+00	1.36E-02	0.04	0.00	0.00	0.01	--	--	--	--	--	--	--	1.65
Plant 18 Assembly Line	0.01	0.15	0.00	0.00	1.42	0.01	0.04	0.00	0.00	0.01	--	--	--	--	--	--	--	1.65E+00
Plant 21 Assembly Line	0.07	0.77	0.00	0.00	7.09	0.07	0.20	0.01	0.00	0.04	--	--	--	--	--	--	--	8.25
Plant 22 Assembly Line	0.07	0.77	0.00	0.00	7.09E+00	6.81E-02	0.20	0.01	0.00	0.04	--	--	--	--	--	--	--	8.25
Plant 69A Assembly Line	0.05	0.62	0.00	0.00	5.67	0.05	0.16	0.01	0.00	0.03	--	--	--	--	--	--	--	6.60
Plant 69B Assembly Line	0.05	0.62	0.00	0.00	5.67	0.05	0.16	0.01	0.00	0.03	--	--	--	--	--	--	--	6.60
Plant 6 Touch-up Paint Operation Line 1	0.01	0.01	--	--	0.00E+00	0.00	--	0.00	0.00	0.00	--	--	--	--	--	--	--	0.02
Plant 6 Touch-up Paint Operation Line 2	0.01	0.01	--	--	0.00E+00	0.00	--	0.00	0.00	0.00	--	--	--	--	--	--	--	0.02
Source Natural Gas Combustion	--	0.00	0.01	0.00	0.18	--	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.18
Source Welding and Thermal Cutting	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	1.66	0.01	0.01	1.68
<b>Total HAP</b>	<b>0.47</b>	<b>5.25</b>	<b>0.01</b>	<b>2.06E-04</b>	<b>48.41</b>	<b>0.46</b>	<b>1.35</b>	<b>0.09</b>	<b>3.15E-03</b>	<b>0.26</b>	<b>1.18E-04</b>	<b>4.90E-05</b>	<b>1.08E-04</b>	<b>0.01</b>	<b>1.66</b>	<b>0.01</b>	<b>0.01</b>	<b>57.97</b>

Potential to Emit after Issuance (tons/yr)																			
Emission Unit	Xylene Emissions	Toluene Emissions	Formaldehyde Emissions	Benzene Emissions	Hexane Emissions	Glycol Ethers Emissions	Methanol Emissions	Ethyl Benzene Emissions	Hexamethylene-1,6 diisocyanate Emissions	MIBK Emissions	Dichlorobenzene Emissions	Lead Emissions	Cadmium Emissions	Chromium Emissions	Manganese Emissions	Nickel Emissions	Cobalt Emissions	Total HAP	
Plant 2 Assembly Line	0.04	0.46	0.00	0.00	9.74	0.04	0.12	0.01	0.00	0.02	--	--	--	--	--	--	--	23.00	
Plant 7A Assembly Line	0.07	0.85	0.00	0.00		0.07	0.22	0.01	0.00	0.04	--	--	--	--	--	--	--		--
Plant 7B Assembly Line	0.07	0.85	0.00	0.00		0.07	0.22	0.01	0.00	0.04	--	--	--	--	--	--	--		--
Plant 17 Assembly Line	0.01	0.15	0.00	0.00		0.01	0.04	0.00	0.00	0.01	--	--	--	--	--	--	--		--
Plant 18 Assembly Line	0.01	0.15	0.00	0.00		0.01	0.04	0.00	0.00	0.01	--	--	--	--	--	--	--		--
Plant 21 Assembly Line	0.07	0.77	0.00	0.00		0.07	0.20	0.01	0.00	0.04	--	--	--	--	--	--	--		--
Plant 22 Assembly Line	0.07	0.77	0.00	0.00		0.07	0.20	0.01	0.00	0.04	--	--	--	--	--	--	--		--
Plant 69A Assembly Line	0.05	0.62	0.00	0.00		0.05	0.16	0.01	0.00	0.03	--	--	--	--	--	--	--		--
Plant 69B Assembly Line	0.05	0.62	0.00	0.00		0.05	0.16	0.01	0.00	0.03	--	--	--	--	--	--	--		--
Plant 6 Touch-up Paint Operation Line 1	0.01	0.01	--	--		0.00E+00	0.00	--	0.00	0.00	0.00	--	--	--	--	--	--		--
Plant 6 Touch-up Paint Operation Line 2	0.01	0.01	--	--	0.00E+00	0.00	--	0.00	0.00	0.00	--	--	--	--	--	--	--	0.02	
Source Natural Gas Combustion	--	0.00	0.01	0.00	0.18	--	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	--	0.18	
Source Welding and Thermal Cutting	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	1.66	0.01	0.01	1.68	
<b>Total HAP</b>	<b>0.47</b>	<b>5.25</b>	<b>0.01</b>	<b>2.06E-04</b>	<b>9.92</b>	<b>0.46</b>	<b>1.35</b>	<b>0.09</b>	<b>3.15E-03</b>	<b>0.26</b>	<b>1.18E-04</b>	<b>4.90E-05</b>	<b>1.08E-04</b>	<b>0.01</b>	<b>1.66</b>	<b>0.01</b>	<b>0.01</b>	<b>24.90</b>	

Note: The shaded cells indicate where limits are included.

\*\* Polycyclic Aromatic Hydrocarbons (PAH) are considered polycyclic organic matter, which are defined as HAPs

**Appendix A: Emission Calculations**  
**Proposed Revision**

**Company Name:** Heartland Recreational Vehicles, LLC  
**Address City IN Zip:** 1001 All Pro Drive, Elkhart, IN 46514  
**Permit No./Plt ID:** 039-36439-00621  
**Reviewer:** Thomas Olmstead  
**Date:** February, 2016

Uncontrolled Potential to Emit (tons/yr) - Existing Units Before Modification <sup>1</sup>									
Emission Unit	PM	PM10	PM2.5	SO <sub>2</sub>	NOx	VOC	CO	Total HAPs	Single HAP Hexane
Plant 2	0.35	0.35	0.35	--	--	22.28	--	4.45	3.68
Plant 7A/7B	0.32	0.32	0.32	--	--	22.23	--	4.43	3.66
Plant 11	0.00	0.00	0.00	--	--	2.92E-07	--	--	--
Plant 17/18	0.13	0.13	0.13	--	--	8.89	--	1.77	1.47
Plants 21, 22	0.19	0.19	0.19	--	--	13.34	--	2.66	2.20
Plant 69A/69B	0.51	0.51	0.51	--	--	35.57	--	7.09	5.86
<b>Total</b>	<b>1.51</b>	<b>1.51</b>	<b>1.51</b>	--	--	<b>102.32</b>	--	<b>20.40</b>	<b>16.86</b>

<sup>1</sup>Values are taken from permit number 039-29849-00621 appendix A calculations for surface coating lines

Uncontrolled Potential to Emit (tons/yr) - Existing Units After Modification									
Emission Unit	PM	PM10	PM2.5 *	SO <sub>2</sub>	NOx	VOC	CO	Total HAPs	Single HAP Hexane
Plant 2	0.07	0.07	0.07	--	--	25.23	--	4.95	9.74
Plant 7A/7B	0.26	0.26	0.26	--	--	92.48	--	18.14	0.00
Plant 11	0.00E+00	0.00E+00	0.00E+00	--	--	5.85E-07	--	--	--
Plant 17/18	0.05	0.05	0.05	--	--	16.82	--	3.30	0.00
Plants 21 & 22	0.23	0.23	0.23	--	--	84.07	--	16.49	0.00
Plant 69A/69B	0.19	0.19	0.19	--	--	67.26	--	13.19	0.00
<b>Total</b>	<b>0.79</b>	<b>0.79</b>	<b>0.79</b>	--	--	<b>285.86</b>	--	<b>56.07</b>	<b>9.74</b>

Part 70 Determination - Emissions Increase for Modified Units									
	PM	PM10	PM2.5 *	SO <sub>2</sub>	NOx	VOC	CO	Total HAPs	Single HAP Hexane
Plant 2	-0.28	-0.28	-0.28	--	--	2.94	--	0.50	6.06
Plant 7A/7B	-0.07	-0.07	-0.07	--	--	70.25	--	13.71	-3.66
Plant 11	0.00	0.00	0.00	--	--	0.00	--	--	--
Plant 17/18	-0.08	-0.08	-0.08	--	--	7.93	--	1.53	-1.47
Plants 21 & 22	0.04	0.04	0.04	--	--	70.73	--	13.83	-2.20
Plant 69A/69B	-0.33	-0.33	-0.33	--	--	31.69	--	6.10	-5.86
<b>Total</b>	<b>0.04</b>	<b>0.04</b>	<b>0.04</b>	--	--	<b>183.54</b>	--	<b>35.67</b>	<b>-7.12</b>

Uncontrolled Potential to Emit (tons/yr) - PTE of New Units									
Emission Unit	PM	PM10	PM2.5 *	SO <sub>2</sub>	NOx	VOC	CO	Total HAPs	Single HAP Hexane
Plant 6	0.01	0.01	0.01	--	--	0.11	--	0.03	0.00E+00
<b>Total</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>	--	--	<b>0.11</b>	--	<b>0.03</b>	<b>0.00E+00</b>

<b>Total Proposed</b>	<b>0.05</b>	<b>0.05</b>	<b>0.05</b>	--	--	<b>183.65</b>	--	<b>35.71</b>	<b>-7.12</b>
-----------------------	-------------	-------------	-------------	----	----	---------------	----	--------------	--------------

\* PM2.5 listed is direct PM2.5

**Appendix A: Emission Calculations  
VOC and Particulate  
Plant 2**

Company Name: Heartland Recreational Vehicles, LLC  
Address City IN Zip: 1001 All Pro Drive, Elkhart, IN 46514  
Permit No./Plt ID: 039-36439-00621  
Reviewer: Thomas Olmstead  
Date: February, 2016

**Chassis Preparation (CP2)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method	
C-35	9.35	70.00%	43.0%	27.0%	60.8%	11.07%	0.00286	1.500	0.10	6.44	2.52	0.01	0.26	0.05	0.00	22.80	100%	Metal	Hand/manual	
<b>Potential Emissions:</b>												<b>0.01</b>	<b>0.26</b>	<b>0.05</b>	<b>0.00</b>					

**Assembly Line Operations (AL02)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method	
Sikaflex 552	12.10	1.34%	0.0%	1.3%	0.0%	97.80%	0.0085	1.500	0.31	0.16	0.16	0.00	0.05	0.01	0.00	0.17	100%	Plastic	Manual Caulk	
Sikaflex 521	10.60	0.00%	0.0%	0.0%	0.0%	100.00%	0.0012	1.500	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Plastic	Manual Caulk	
SIL 100GP	7.92	9.00%	0.0%	9.0%	0.0%	90.32%	0.1990	1.500	7.16	0.71	0.71	0.21	5.11	0.93	0.00	0.79	100%	Wood/Fabric	Manual Caulk	
Manus 25-AM	11.68	0.11%	0.0%	0.1%	0.0%	99.83%	0.1265	1.500	4.55	0.01	0.01	0.00	0.06	0.01	0.00	0.01	100%	Wood/Fabric	Manual Caulk	
Manus 501-A	10.68	1.69%	0.0%	1.7%	0.0%	97.55%	0.2185	1.500	7.87	0.18	0.18	0.06	1.42	0.26	0.00	0.19	100%	Wood/Fabric	Manual Caulk	
Manus 75-AM	14.19	0.00%	0.0%	0.0%	0.0%	100.00%	0.1265	1.500	4.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Wood/Fabric	Manual Caulk	
StaPut SP90 <sup>1</sup>	6.08	70.30%	25.0%	45.3%	18.2%	41.93%	0.8165	1.500	29.39	3.37	2.75	3.37	80.96	14.77	0.00	6.57	100%	Wood/Fabric	non-atomized spray	
StaPut SP80 <sup>1</sup>	6.18	80.90%	27.3%	53.6%	20.2%	32.07%	0.2185	1.500	7.87	4.15	3.31	1.09	26.06	4.76	0.00	10.33	100%	Wood/Fabric	non-atomized spray	
Oatey 60E5	16.68	0.00%	0.0%	0.0%	0.0%	100.00%	0.0026	1.500	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Plastic	Manual Brush	
IPS Corp. 771, 773	7.26	100.00%	15.0%	85.0%	13.1%	13.06%	0.0357	1.500	1.28	7.10	6.17	0.33	7.92	1.45	0.00	47.25	100%	Plastic	Manual Caulk	
<b>Potential Emissions:</b>												<b>5.07</b>	<b>121.57</b>	<b>22.19</b>	<b>0.00</b>					

1. IDEM, OAQ has determined that application of StaPut SP80 and StaPut SP90 in RV assembly operations at this source when using non-atomizing spray does not generate particulate emissions.

**Touchup Paint Operation (TP2)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method	
SW 10001	5.84	88.00%	23.2%	64.77%	20.6%	7.00%	0.0003	1.500	0.01	4.76	3.78	0.00	0.05	0.01	0.00	54.04	50%	Metal	aerosol	
SW 10010	6.09	82.10%	27.1%	55.04%	25.0%	7.00%	0.0003	1.500	0.01	4.47	3.35	0.00	0.04	0.01	0.00	47.38	50%	Wood/Fabric	aerosol	
BASF AM800	6.90	79.71%	8.7%	71.01%	10.9%	9.00%	0.0008	1.500	0.03	5.50	4.90	0.01	0.14	0.03	0.00	54.44	50%	Wood/Fabric	aerosol	
BASF NRL Bases	8.83	69.08%	0.0%	69.08%	0.0%	21.00%	0.0006	1.500	0.02	6.10	6.10	0.01	0.13	0.02	0.00	29.05	75%	Wood/Fabric	HVLP	
DuPont 7601S	7.18	96.10%	0.0%	96.10%	0.0%	2.84%	0.0018	1.500	0.07	6.90	6.90	0.02	0.46	0.08	0.00	242.96	75%	Wood/Fabric	HVLP	
BASF DC76NR	7.58	64.64%	6.6%	58.04%	10.0%	23.00%	0.0023	1.500	0.08	4.89	4.40	0.02	0.36	0.07	0.01	19.13	75%	Wood/Fabric	HVLP	
BASF LH200	8.92	28.03%	0.0%	28.03%	0.0%	66.00%	0.0005	1.500	0.02	2.50	2.50	0.00	0.04	0.01	0.00	3.79	75%	Wood/Fabric	HVLP	
BASF 352-500	7.60	98.68%	0.0%	98.68%	0.0%	1.00%	0.0001	1.500	0.00	7.50	7.50	0.00	0.03	0.01	0.00	749.97	75%	Plastic	HVLP	
BASF UR500	6.59	94.10%	1.5%	92.58%	2.0%	4.00%	0.0028	1.500	0.10	6.23	6.10	0.03	0.61	0.11	0.00	152.53	75%	Plastic	HVLP	
<b>Potential Emissions:</b>												<b>0.08</b>	<b>1.86</b>	<b>0.34</b>	<b>0.03</b>					

**Final Finish (FF2)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method	
3M 5990	8.31	83.40%	74.24%	9.16%	73.9%	16.53%	0.0001	1.50	0.00	2.92	0.76	0.00	0.00	0.00	0.00	4.60	100%	Metal/Plastic	Hand/manual	
3M5936	9.67	63.00%	31.00%	32.00%	35.9%	18.77%	0.0002	1.50	0.01	4.83	3.09	0.00	0.03	0.00	0.00	16.49	100%	Metal/Plastic	Hand/manual	
ICI DT-10	7.02	100.00%	13.20%	86.80%	14.0%	0.00%	0.0136	1.50	0.49	7.09	6.09	0.12	2.98	0.54	0.00	N/A	100%	Solvent/Cleaner	Hand/manual	
ICI Acetone	6.59	100.00%	100.00%	0.00%	100.0%	0.00%	0.0023	1.50	0.08	N/A	0.00	0.00	0.00	0.00	0.00	N/A	100%	Solvent/Cleaner	Hand/manual	
ICI Isopropyl	6.59	100.00%	0.00%	100.00%	0.0%	0.00%	0.0092	1.50	0.33	6.59	6.59	0.09	2.18	0.40	0.00	N/A	100%	Solvent/Cleaner	Hand/manual	
Carni-Cambell CC-911	9.37	69.47%	0.00%	69.47%	0.0%	0.00%	0.0249	1.50	0.90	6.51	0.24	5.83	1.06	0.00	0.00	N/A	100%	Solvent/Cleaner	Hand/manual	
Cydo C-31	8.17	90.00%	78.00%	12.00%	76.4%	0.09%	0.0132	1.50	0.48	4.16	0.98	0.02	0.47	0.09	0.04	1089.33	50%	Solvent/Cleaner	aerosol	
Cydo C-192	8.34	94.00%	74.00%	20.00%	74.0%	2.00%	0.0052	1.50	0.19	6.42	1.67	0.01	0.31	0.06	0.01	83.40	50%	Solvent/Cleaner	aerosol	
ICI Mineral Spirits	6.59	100.00%	0.00%	100.00%	0.0%	0.00%	0.0115	1.50	0.41	6.59	6.59	0.11	2.73	0.50	0.00	N/A	100%	Solvent/Cleaner	Hand/manual	
Maskal Various Maskers	11.18	0.00%	0.00%	0.00%	0.00%	100.00%	0.0002	1.50	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00%	Metal	Hand/manual	
RPM Wood Finishes M280-0014	7.29	81.48%	0.00%	81.48%	0.00%	11.58%	0.0001	1.50	0.00	5.94	5.94	0.00	0.02	0.00	0.00	51.29	100.00%	Wood	Hand/manual	
<b>Potential Emissions:</b>												<b>0.61</b>	<b>14.55</b>	<b>2.66</b>	<b>0.04</b>					

**Grand Totals Plant 2**      5.76      138.24      25.23      0.07

Total Gallons Used (gal/day)      **66.47**  
Total not-exempt under 326 IAC 6-3-2      **1.00602**

Total when coating metal:      **0.336**      **0.061**

**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  
VOC and Particulate  
Plant 7A

Company Name: Heartland Recreational Vehicles, LLC  
Address City IN Zip: 1001 All Pro Drive, Elkhart, IN 46514  
Permit No./Pit ID: 039-36439-00621  
Reviewer: Thomas Oimstead  
Date: February, 2016

Chassis Preparation (CP7A)

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method
C-35	9.35	70.00%	43.0%	27.0%	60.8%	11.07%	0.00249	2,750	0.16	6.44	2.52	0.02	0.41	0.08	0.00	22.80	100%	Metal	Hand/manual
<b>Potential Emissions:</b>											<b>0.02</b>	<b>0.41</b>	<b>0.08</b>	<b>0.00</b>					

Assembly Line Operations (AL07A)

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method
Skaflex 552	12.10	1.34%	0.0%	1.3%	0.0%	97.80%	0.0085	2,750	0.56	0.15	0.16	0.00	0.09	0.02	0.00	0.17	100%	Plastic	Manual Caulk
Skaflex 521	10.60	0.00%	0.0%	0.0%	0.0%	100.00%	0.0012	2,750	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Plastic	Manual Caulk
SIL 100GP	7.92	9.00%	0.0%	9.0%	0.0%	90.32%	0.1990	2,750	13.13	0.71	0.71	0.39	9.36	1.71	0.00	0.79	100%	Wood/Fabric	Manual Caulk
Manus 25-AM	11.68	0.11%	0.0%	0.1%	0.0%	99.83%	0.1265	2,750	8.35	0.01	0.01	0.00	0.11	0.02	0.00	0.01	100%	Wood/Fabric	Manual Caulk
Manus 501-A	10.68	1.69%	0.0%	1.7%	0.0%	97.55%	0.2185	2,750	14.42	0.18	0.18	0.11	2.60	0.48	0.00	0.19	100%	Wood/Fabric	Manual Caulk
Manus 75-AM	14.19	0.00%	0.0%	0.0%	0.0%	100.00%	0.1265	2,750	8.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Wood/Fabric	Manual Caulk
StaPut SP90 <sup>1</sup>	6.08	79.30%	25.0%	45.3%	18.2%	41.93%	0.8165	2,750	53.89	3.37	2.75	6.18	148.42	27.09	0.00	6.57	100%	Wood/Fabric	non-atomized spray
StaPut SP80 <sup>1</sup>	6.18	80.90%	27.3%	53.6%	20.2%	32.07%	0.2185	2,750	14.42	4.15	3.31	1.99	47.77	8.72	0.00	10.33	100%	Wood/Fabric	non-atomized spray
Qatey 60E5	16.68	0.00%	0.0%	0.0%	0.0%	100.00%	0.0026	2,750	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Plastic	Manual Brush
IPS Corp. 771, 773	7.26	100.00%	15.0%	85.0%	13.1%	13.06%	0.0357	2,750	2.35	7.10	6.17	0.60	14.52	2.65	0.00	47.25	100%	Plastic	Manual Caulk
<b>Potential Emissions:</b>											<b>9.29</b>	<b>222.87</b>	<b>46.67</b>	<b>0.00</b>					

1. IDEM, OAQ has determined that application of StaPut SP80 and StaPut SP90 in RV assembly operations at this source when using non-atomizing spray does not generate particulate emissions.

Touchup Paint Operation (TP7A)

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method
SW 10001	5.84	86.00%	23.2%	64.77%	20.6%	7.00%	0.0003	2,750	0.02	4.76	3.78	0.00	0.09	0.02	0.00	54.04	50%	Metal	aerosol
SW 10010	6.09	82.10%	27.1%	55.04%	25.0%	7.00%	0.0003	2,750	0.02	4.47	3.35	0.00	0.08	0.01	0.00	47.88	50%	Wood/Fabric	aerosol
BASF AM800	6.90	79.71%	8.7%	71.01%	10.9%	9.00%	0.0008	2,750	0.05	5.50	4.90	0.01	0.26	0.05	0.01	54.44	50%	Wood/Fabric	aerosol
BASF NRI Bases	8.83	69.08%	0.0%	69.08%	0.0%	21.00%	0.0006	2,750	0.04	6.10	6.10	0.01	0.23	0.04	0.00	29.05	75%	Wood/Fabric	HVLP
DuPont 7601S	7.18	96.10%	0.0%	96.10%	0.0%	2.84%	0.0018	2,750	0.12	6.90	6.90	0.03	0.84	0.15	0.00	242.96	75%	Wood/Fabric	HVLP
BASF DC76NR	7.58	64.54%	6.6%	58.04%	10.0%	23.00%	0.0023	2,750	0.15	4.89	4.40	0.03	0.67	0.12	0.02	19.13	75%	Wood/Fabric	HVLP
BASF LH200	8.92	28.03%	0.0%	28.03%	0.0%	66.00%	0.0005	2,750	0.03	2.50	2.50	0.00	0.28	0.01	0.01	3.79	75%	Wood/Fabric	HVLP
BASF 352-500	7.60	98.68%	0.0%	98.68%	0.0%	1.00%	0.0001	2,750	0.01	7.50	7.50	0.00	0.06	0.01	0.00	749.97	75%	Plastic	HVLP
BASF UR500	6.59	94.10%	1.5%	92.58%	2.0%	4.00%	0.0028	2,750	0.18	6.23	6.10	0.05	1.11	0.20	0.00	152.53	75%	Plastic	HVLP
<b>Potential Emissions:</b>											<b>0.14</b>	<b>3.40</b>	<b>0.62</b>	<b>0.05</b>					

Final Finish (FF7A)

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method
3M 5990	8.31	83.40%	74.24%	9.16%	73.9%	16.53%	0.0001	2.75	0.01	2.92	0.76	0.00	0.01	0.00	0.00	4.60	100%	Metal/Plastic	Hand/manual
3M 5996	9.87	63.00%	31.00%	32.00%	35.9%	18.77%	0.0002	2.75	0.02	4.83	3.09	0.00	0.06	0.01	0.00	16.49	100%	Metal/Plastic	Hand/manual
ICI D7-10	7.02	100.00%	13.20%	86.80%	14.0%	0.00%	0.0136	2.75	0.90	7.09	6.09	0.23	5.46	1.00	0.00	N/A	100%	Solvent/Cleanse	Hand/manual
ICI Acetone	6.59	100.00%	100.00%	0.00%	100.0%	0.00%	0.0023	2.75	0.15	N/A	0.00	0.00	0.00	0.00	0.00	N/A	100%	Solvent/Cleanse	Hand/manual
ICI Isopropyl	6.59	100.00%	0.00%	100.00%	0.0%	0.00%	0.0092	2.75	0.61	6.59	6.59	0.17	4.00	0.73	0.00	N/A	100%	Solvent/Cleanse	Hand/manual
Camie-Cambell CC-911	9.37	69.47%	0.00%	69.47%	0.0%	0.00%	0.0249	2.75	1.64	6.51	6.51	0.45	10.70	1.95	0.00	N/A	100%	Solvent/Cleanse	Hand/manual
Cyclo C-31	8.17	90.00%	78.00%	12.00%	76.4%	0.09%	0.0132	2.75	0.87	4.16	0.98	0.04	0.86	0.16	0.07	1089.33	50%	Solvent/Cleanse	aerosol
Cyclo C-192	8.34	94.00%	74.00%	20.00%	74.0%	2.00%	0.0052	2.75	0.34	6.42	1.67	0.02	0.57	0.10	0.02	83.40	50%	Solvent/Cleanse	aerosol
ICI Mineral Spirits	6.59	100.00%	0.00%	100.00%	0.0%	0.00%	0.0115	2.75	0.76	6.59	6.59	0.21	5.00	0.91	0.00	N/A	100%	Solvent/Cleanse	Hand/manual
Markal Various Markers	11.18	0.00%	0.00%	0.00%	0.00%	100.00%	0.0002	2.75	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00%	Metal	Hand/manual
RPM Wood Finishes M280-0014	7.29	81.48%	0.00%	81.48%	0.00%	11.58%	0.0001	2.75	0.01	5.94	5.94	0.00	0.05	0.01	0.00	51.29	100.00%	Wood	Hand/manual
<b>Potential Emissions:</b>											<b>1.11</b>	<b>26.68</b>	<b>4.87</b>	<b>0.08</b>					

**Grand Totals Plant 7A**      **10.56**      **253.37**      **46.24**      **0.13**

Total Gallons Used (gal/day)      **121.84**  
Total not-exempt under 326 IAC 6-3-2      **1,84437**

Total when coating metal:      **0.554**      **0.101**

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 hrs/yr) \* (1 ton/2000 lbs)  
Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1 - Transfer efficiency) / (8760 hrs/yr) \* (1 ton/2000 lbs)  
Pounds VOC per Gallon of Solids = (Density (lb/gal) \* Weight % organics) / (Volume % solids)  
Total = Worst Coating + Sum of all solvents used

**Appendix A: Emission Calculations  
VOC and Particulate  
Plant 7B**

**Company Name: Heartland Recreational Vehicles, LLC**  
**Address City IN Zip: 1001 All Pro Drive, Elkhart, IN 46514**  
**Permit No./Pit ID: 039-36439-00621**  
**Reviewer: Thomas Omsstead**  
**Date: February, 2016**

**Chassis Preparation (CP7B)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method
C-35	9.35	70.00%	43.0%	27.0%	60.8%	11.07%	0.00249	2,750	0.16	6.44	2.52	0.02	0.41	0.08	0.00	22.80	100%	Metal	Hand/manual
<b>Potential Emissions:</b>												<b>0.02</b>	<b>0.41</b>	<b>0.08</b>	<b>0.00</b>				

**Assembly Line Operations (AL07B)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method
Skaflex 552	12.10	1.34%	0.0%	1.3%	0.0%	97.80%	0.0085	2,750	0.56	0.16	0.16	0.00	0.09	0.02	0.00	0.17	100%	Plastic	Manual Caulk
Skaflex 521	10.60	0.00%	0.0%	0.0%	0.0%	100.00%	0.0012	2,750	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Plastic	Manual Caulk
SIL 100GP	7.92	9.00%	0.0%	9.0%	0.0%	90.32%	0.1990	2,750	13.13	0.71	0.71	0.39	9.36	1.71	0.00	0.79	100%	Wood/Fabric	Manual Caulk
Manus 25-AM	11.88	0.11%	0.0%	0.1%	0.0%	99.83%	0.1265	2,750	8.35	0.01	0.01	0.00	0.11	0.02	0.00	0.01	100%	Wood/Fabric	Manual Caulk
Manus 501-A	10.68	1.69%	0.0%	1.7%	0.0%	97.55%	0.2185	2,750	14.42	0.18	0.18	0.11	2.60	0.48	0.00	0.19	100%	Wood/Fabric	Manual Caulk
Manus 75-AM	14.19	0.00%	0.0%	0.0%	0.0%	100.00%	0.1265	2,750	8.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Wood/Fabric	Manual Caulk
StaPut SP90 <sup>1</sup>	6.08	70.30%	25.0%	45.3%	18.2%	41.93%	0.8165	2,750	63.89	3.37	2.75	6.18	148.42	27.09	0.00	6.57	100%	Wood/Fabric	non-atomized spray
StaPut SP80 <sup>1</sup>	6.18	80.90%	27.3%	53.6%	20.2%	32.07%	0.2185	2,750	14.42	4.15	3.31	1.99	47.77	8.72	0.00	10.33	100%	Wood/Fabric	non-atomized spray
Qatey 60E5	16.68	0.00%	0.0%	0.0%	0.0%	100.00%	0.0026	2,750	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Plastic	Manual Brush
IPS Corp. 771, 773	7.26	100.00%	15.0%	85.0%	13.1%	13.06%	0.0357	2,750	2.35	7.10	6.17	0.60	14.52	2.65	0.00	47.25	100%	Plastic	Manual Caulk
<b>Potential Emissions:</b>												<b>9.29</b>	<b>222.87</b>	<b>40.67</b>	<b>0.00</b>				

1. IDEM, OAQ has determined that application of StaPut SP80 and StaPut SP90 in RV assembly operations at this source when using non-atomized spray does not generate particulate emissions.

**Touchup Paint Operation (TP7B)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method
SW 10001	5.84	88.00%	23.2%	64.77%	20.6%	7.00%	0.0003	2,750	0.02	4.78	3.78	0.00	0.09	0.02	0.00	54.04	50%	Metal	aerosol
SW 10010	6.09	82.10%	27.1%	55.04%	25.0%	7.00%	0.0003	2,750	0.02	4.47	3.35	0.00	0.08	0.01	0.00	47.88	50%	Wood/Fabric	aerosol
BASF AM800	6.90	79.71%	8.7%	71.01%	10.9%	9.00%	0.0008	2,750	0.05	5.50	4.90	0.01	0.26	0.05	0.00	54.44	50%	Wood/Fabric	aerosol
BASF NRL Bases	8.83	69.08%	0.0%	69.08%	0.0%	21.00%	0.0006	2,750	0.04	6.10	6.10	0.03	0.23	0.04	0.00	29.05	75%	Wood/Fabric	HVLP
DuPont 7601S	7.18	96.10%	0.0%	96.10%	0.0%	2.84%	0.0018	2,750	0.12	6.90	6.90	0.01	0.84	0.15	0.00	242.96	75%	Wood/Fabric	HVLP
BASF DC76NR	7.58	84.84%	6.6%	83.94%	10.0%	23.00%	0.0023	2,750	0.15	4.89	4.40	0.03	0.87	0.12	0.02	19.13	75%	Wood/Fabric	HVLP
BASF LH200	8.92	28.03%	0.0%	28.03%	0.0%	66.00%	0.0005	2,750	0.03	2.50	2.50	0.00	0.08	0.01	0.01	3.79	75%	Wood/Fabric	HVLP
BASF 352-500	7.60	98.68%	0.0%	98.68%	0.0%	1.00%	0.0001	2,750	0.01	7.50	7.50	0.00	0.06	0.01	0.00	749.97	75%	Plastic	HVLP
BASF UR500	6.59	94.10%	1.5%	92.58%	2.0%	4.00%	0.0028	2,750	0.18	6.23	6.10	0.05	1.11	0.20	0.00	152.53	75%	Plastic	HVLP
<b>Potential Emissions:</b>												<b>0.14</b>	<b>3.40</b>	<b>0.62</b>	<b>0.05</b>				

**Final Finish (FF7B)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method
3M 5990	8.31	83.40%	74.24%	9.16%	73.9%	16.53%	0.0001	2.75	0.01	2.92	0.76	0.00	0.01	0.00	0.00	4.60	100%	Metal/Plastic	Hand/manual
3M 5996	9.67	83.00%	31.00%	32.00%	35.9%	18.77%	0.0002	2.75	0.02	4.83	3.09	0.00	0.05	0.01	0.00	16.49	100%	Metal/Plastic	Hand/manual
ICI D7-10	7.02	100.00%	13.20%	86.80%	14.0%	0.00%	0.0136	2.75	0.90	7.09	6.09	0.23	5.46	1.00	0.00	N/A	100%	Solvent/Cleanse	Hand/manual
ICI Acetone	6.59	100.00%	100.00%	0.00%	100.0%	0.00%	0.0023	2.75	0.15	N/A	0.00	0.00	0.00	0.00	0.00	N/A	100%	Solvent/Cleanse	Hand/manual
ICI Isopropanol	6.59	100.00%	0.00%	100.00%	0.0%	0.00%	0.0092	2.75	0.61	6.59	6.59	0.17	4.00	0.73	0.00	N/A	100%	Solvent/Cleanse	Hand/manual
Camie-Cambell CC-911	9.37	69.47%	0.00%	69.47%	0.0%	0.00%	0.0249	2.75	1.64	6.51	6.51	0.45	10.70	1.95	0.00	N/A	100%	Solvent/Cleanse	Hand/manual
Cyclo C-31	8.17	90.00%	78.00%	12.00%	76.4%	0.09%	0.0132	2.75	0.87	4.16	0.98	0.04	0.86	0.16	0.07	1089.33	50%	Solvent/Cleanse	aerosol
Cyclo C-192	8.34	94.00%	74.00%	20.00%	74.0%	2.00%	0.0052	2.75	0.34	6.42	1.67	0.02	0.57	0.10	0.02	83.40	50%	Solvent/Cleanse	aerosol
ICI Mineral Spirits	6.59	100.00%	0.00%	100.00%	0.0%	0.00%	0.0115	2.75	0.76	6.59	6.59	0.21	5.00	0.91	0.00	N/A	100%	Solvent/Cleanse	Hand/manual
Markal Various Markers	11.18	0.00%	0.00%	0.00%	0.00%	100.00%	0.0002	2.75	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00%	Metal	Hand/manual
RPM Wood Finishes M280-0014	7.29	81.48%	0.00%	81.48%	0.00%	11.58%	0.0001	2.75	0.01	5.94	5.94	0.00	0.05	0.01	0.00	51.29	100.00%	Wood	Hand/manual
<b>Potential Emissions:</b>												<b>1.11</b>	<b>26.68</b>	<b>4.87</b>	<b>0.08</b>				

**Grand Totals Plant 7B**      **10.56**      **253.37**      **46.24**      **0.13**

Total Gallons Used (gal/day)      **121.84**  
 Total not-exempt under 326 IAC 6-3-2      **1.84437**

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

**Appendix A: Emission Calculations  
VOC and Particulate  
Plant 17**

Company Name: **Heartland Recreational Vehicles, LLC**  
Address City IN Zip: **1001 All Pro Drive, Elkhart, IN 46514**  
Permit No./PII ID: **039-36439-00621**  
Reviewer: **Thomas Olmstead**  
Date: **February, 2016**

**Chassis Preparation (CP17)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method		
C-35	9.35	70.00%	43.0%	27.0%	60.8%	11.07%	0.00286	0.500	0.03	6.44	2.52	0.00	0.09	0.02	0.00	22.80	100%	Metal	Hand/Manual		
<b>Potential Emissions:</b>												<b>0.00</b>	<b>0.09</b>	<b>0.02</b>	<b>0.00</b>						

**Assembly Line Operations (AL017)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method		
Skalflex 552	12.10	1.34%	0.0%	1.3%	0.0%	97.80%	0.0085	0.500	0.10	0.16	0.00	0.02	0.00	0.00	0.00	0.17	100%	Plastic	Manual Caulk		
Skalflex 521	10.60	0.00%	0.0%	0.0%	0.0%	100.00%	0.0012	0.500	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Plastic	Manual Caulk		
SIL 100GP	7.92	9.30%	0.0%	9.0%	0.0%	90.32%	0.1990	0.500	2.39	0.71	0.07	1.70	0.31	0.00	0.79	100%	Wood/Fabric	Manual Caulk			
Manus 25-AM	11.58	0.11%	0.0%	0.1%	0.0%	99.83%	0.1255	0.500	1.52	0.01	0.01	0.02	0.00	0.00	0.01	100%	Wood/Fabric	Manual Caulk			
Manus 501-A	10.68	1.89%	0.0%	1.7%	0.0%	97.55%	0.2185	0.500	2.62	0.18	0.18	0.02	0.47	0.09	0.00	0.19	100%	Wood/Fabric	Manual Caulk		
Manus 75-AM	14.19	0.00%	0.0%	0.0%	0.0%	100.00%	0.1265	0.500	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Wood/Fabric	Manual Caulk		
StaPut SP90 <sup>1</sup>	6.08	70.30%	25.0%	45.3%	18.2%	41.93%	0.8165	0.500	9.80	3.37	2.75	1.12	26.99	4.92	0.00	6.57	100%	Wood/Fabric	non-atomized spray		
StaPut SP90 <sup>1</sup>	6.18	80.90%	27.3%	53.6%	20.2%	32.07%	0.2185	0.500	2.62	4.15	3.31	0.36	8.69	1.59	0.00	10.33	100%	Wood/Fabric	non-atomized spray		
Osatey 60E5	16.68	0.00%	0.0%	0.0%	0.0%	100.00%	0.0026	0.500	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Plastic	Manual Brush		
IPS Corp. 771 773	7.26	100.00%	15.0%	85.0%	13.1%	13.06%	0.0357	0.500	0.43	7.10	6.17	0.11	2.64	0.46	0.00	47.25	100%	Plastic	Manual Caulk		
<b>Potential Emissions:</b>												<b>1.69</b>	<b>40.52</b>	<b>7.40</b>	<b>0.00</b>						

1. IDEM, OAG has determined that application of StaPut SP90 and StaPut SP90 in RV assembly operations at this source when using non-atomizing spray does not generate particulate emissions.

**Touchup Paint Operation (TP17)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method		
SW 10001	5.84	88.00%	23.2%	84.77%	20.6%	7.00%	0.0003	0.500	0.00	4.76	3.78	0.00	0.02	0.00	0.00	54.04	50%	Metal	aerosol		
SW 10010	6.09	82.10%	27.1%	55.04%	25.0%	7.00%	0.0003	0.500	0.00	4.47	3.35	0.00	0.01	0.00	0.00	47.98	50%	Wood/Fabric	aerosol		
BASF AM800	6.90	79.11%	8.7%	71.01%	10.9%	9.00%	0.0008	0.500	0.01	5.50	4.80	0.00	0.05	0.01	0.00	54.44	50%	Wood/Fabric	aerosol		
BASF NRL Baseis	8.83	69.08%	0.0%	69.08%	0.0%	21.00%	0.0006	0.500	0.01	6.10	6.10	0.00	0.04	0.01	0.00	29.05	75%	Wood/Fabric	HVLP		
DuPont 7601S	7.18	96.10%	0.0%	96.10%	0.0%	2.84%	0.0018	0.500	0.02	6.90	6.90	0.01	0.15	0.03	0.00	242.96	75%	Wood/Fabric	HVLP		
BASF DC76NR	7.58	84.84%	6.6%	58.04%	10.0%	23.00%	0.0023	0.500	0.03	4.89	4.40	0.01	0.12	0.02	0.00	19.13	75%	Wood/Fabric	HVLP		
BASF LH200	8.92	28.03%	0.0%	28.03%	0.0%	66.00%	0.0005	0.500	0.01	2.50	2.50	0.00	0.01	0.00	0.00	3.79	75%	Wood/Fabric	HVLP		
BASF 352-500	7.60	88.68%	0.0%	88.68%	0.0%	1.00%	0.0001	0.500	0.00	7.50	7.50	0.00	0.01	0.00	0.00	749.97	75%	Plastic	HVLP		
BASF UR500	6.59	94.10%	1.5%	92.58%	2.0%	4.00%	0.0028	0.500	0.03	6.23	6.10	0.01	0.20	0.04	0.00	152.53	75%	Plastic	HVLP		
<b>Potential Emissions:</b>												<b>0.03</b>	<b>0.62</b>	<b>0.11</b>	<b>0.01</b>						

**Final Finish (FF17)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method		
3M 5990	8.31	83.40%	74.24%	9.16%	73.9%	16.53%	0.0001	0.50	0.00	2.92	0.76	0.00	0.00	0.00	0.00	4.60	100%	Metal/Plastic	Hand/Manual		
3M305	9.67	63.00%	31.00%	32.00%	35.9%	18.77%	0.0002	0.50	0.00	4.83	3.09	0.00	0.01	0.00	0.00	16.49	100%	Metal/Plastic	Hand/Manual		
ICI DT-10	7.02	100.00%	13.20%	88.80%	14.0%	0.00%	0.0136	0.50	0.16	7.09	6.09	0.04	0.99	0.18	0.00	N/A	100%	Solvent/Cleaner	Hand/Manual		
ICI Acetone	6.59	100.00%	100.00%	0.00%	100.0%	0.00%	0.0023	0.50	0.03	N/A	0.00	0.00	0.00	0.00	0.00	N/A	100%	Solvent/Cleaner	Hand/Manual		
ICI Isopropylal	6.59	100.00%	0.00%	100.00%	0.0%	0.00%	0.0092	0.50	0.11	6.59	6.59	0.03	0.73	0.13	0.00	N/A	100%	Solvent/Cleaner	Hand/Manual		
Came-Campbell CC-911	9.37	69.47%	0.00%	69.47%	0.0%	0.00%	0.0249	0.50	0.30	6.51	6.51	0.08	1.94	0.35	0.00	N/A	100%	Solvent/Cleaner	Hand/Manual		
Cyclo C-31	8.17	90.00%	78.00%	12.00%	76.4%	0.09%	0.0132	0.50	0.16	4.16	0.98	0.01	0.16	0.03	0.01	1089.33	50%	Solvent/Cleaner	aerosol		
Cyclo C-192	8.34	94.00%	74.00%	20.00%	74.0%	2.00%	0.0052	0.50	0.06	6.42	1.67	0.00	0.10	0.02	0.00	83.40	50%	Solvent/Cleaner	aerosol		
ICI Mineral Sprays	6.59	100.00%	0.00%	100.00%	0.0%	0.00%	0.0115	0.50	0.14	6.59	6.59	0.04	0.91	0.17	0.00	N/A	100%	Solvent/Cleaner	Hand/Manual		
Marshall Varnish Makers	11.18	0.00%	0.00%	0.00%	100.00%	0.00%	0.0002	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00%	Metal	Hand/Manual		
WMI Wood Finishes M280-0014	7.29	81.46%	0.00%	81.46%	0.00%	11.56%	0.0001	0.50	0.00	5.94	5.94	0.00	0.01	0.00	0.00	51.29	100.00%	Wood	Hand/Manual		
<b>Potential Emissions:</b>												<b>0.20</b>	<b>4.85</b>	<b>0.89</b>	<b>0.01</b>						

<b>Grand Totals Plant 17</b>												<b>1.92</b>	<b>46.08</b>	<b>8.41</b>	<b>0.02</b>						
------------------------------	--	--	--	--	--	--	--	--	--	--	--	-------------	--------------	-------------	-------------	--	--	--	--	--	--

Total Gallons Used (gal/day) **22.16**  
Total non-exempt under 326 IAC 6-3-2 **0.33534**

When coating metal: **0.112** **0.020**

**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 hrs/yr) / (1 ton/2000 lbs)  
Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lb/gal) \* (1 - Weight % Volatiles) \* (1 - Transfer efficiency) / (8760 hrs/yr) / (1 ton/2000 lbs)  
Pounds VOC per Gallon of Solids = (Density (lb/gal) \* Weight % organics) / (Volume % solids)  
Total = Worst Coating + Sum of all solvents used

**Appendix A: Emission Calculations  
VOC and Particulate  
Plant 18**

Company Name: Heartland Recreational Vehicles, LLC  
Address City, IN Zip: 1001 All Pro Drive, Elkhart, IN 46514  
Permit No./PL ID: 039-36439-00621  
Reviewer: Thomas Olmstead  
Date: February, 2016

**Chassis Preparation (CP18)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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)	b VOC/gal solids	Transfer Efficiency	Substrate	Application Method			
C-35	9.35	70.00%	43.0%	27.0%	60.8%	11.07%	0.00286	0.500	0.03	6.44	2.52	0.00	0.09	0.02	0.00	22.80	100%	Metal	Hand/manual			
<b>Potential Emissions:</b>												<b>0.00</b>	<b>0.09</b>	<b>0.02</b>	<b>0.00</b>							

**Assembly Line Operations (AL018)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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)	b VOC/gal solids	Transfer Efficiency	Substrate	Application Method			
Sikaflex 552	12.10	1.34%	0.0%	1.3%	0.0%	97.80%	0.0085	0.500	0.10	0.16	0.16	0.00	0.02	0.00	0.00	0.17	100%	Plastic	Manual Caulk			
Sikaflex 521	10.60	0.00%	0.0%	0.0%	0.0%	100.00%	0.0012	0.500	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Plastic	Manual Caulk			
SIL 1000P	7.92	9.00%	0.0%	9.0%	0.0%	90.30%	0.1990	0.500	2.39	0.71	0.71	0.07	1.70	0.31	0.00	0.79	100%	Wood/Fabric	Manual Caulk			
Manus 25-AM	11.65	0.11%	0.0%	0.1%	0.0%	99.83%	0.1265	0.500	1.52	0.01	0.01	0.00	0.02	0.00	0.00	0.01	100%	Wood/Fabric	Manual Caulk			
Manus 501-A	10.68	1.69%	0.0%	1.7%	0.0%	97.55%	0.2185	0.500	2.62	0.18	0.18	0.02	0.47	0.09	0.00	0.19	100%	Wood/Fabric	Manual Caulk			
Manus 75-AM	14.19	0.00%	0.0%	0.0%	0.0%	100.00%	0.1265	0.500	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Wood/Fabric	Manual Caulk			
StaPut SP90 <sup>1</sup>	6.08	70.30%	25.0%	45.3%	18.2%	41.93%	0.8165	0.500	9.80	3.37	2.75	1.12	26.99	4.92	0.00	6.57	100%	Wood/Fabric	non-atomized spray			
StaPut SP90 <sup>1</sup>	6.18	80.90%	27.3%	53.6%	20.2%	32.07%	0.2185	0.500	2.62	4.15	3.31	0.36	8.69	1.59	0.00	10.33	100%	Wood/Fabric	non-atomized spray			
Osatey 60E5	16.68	0.00%	0.0%	0.0%	0.0%	100.00%	0.0026	0.500	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Plastic	Manual Brush			
IPS Exp. 771, 773	7.26	100.00%	15.0%	85.0%	13.1%	13.96%	0.0357	0.500	0.43	7.10	6.17	0.11	2.64	0.48	0.00	47.25	100%	Plastic	Manual Caulk			
<b>Potential Emissions:</b>												<b>1.69</b>	<b>40.52</b>	<b>7.40</b>	<b>0.00</b>							

1. IDEM, OAG has determined that application of StaPut SP90 and StaPut SP90 in RV assembly operations at this source when using non-atomizing spray does not generate particulate emissions.

**Touchup Paint Operation (TP18)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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)	b VOC/gal solids	Transfer Efficiency	Substrate	Application Method			
SW 10001	5.84	88.00%	23.2%	64.77%	20.6%	7.00%	0.0003	0.500	0.00	4.76	3.78	0.00	0.02	0.00	0.00	54.04	50%	Metal	aerosol			
SW 10010	6.09	82.10%	27.1%	55.04%	25.0%	7.00%	0.0003	0.500	0.00	4.47	3.35	0.00	0.01	0.00	0.00	47.88	50%	Wood/Fabric	aerosol			
BASF AM800	6.90	79.71%	8.7%	71.01%	10.9%	9.00%	0.0008	0.500	0.01	5.50	4.90	0.00	0.05	0.01	0.00	54.44	50%	Wood/Fabric	aerosol			
BASF NRL Basees	8.83	69.00%	0.0%	69.08%	0.0%	21.00%	0.0006	0.500	0.01	6.10	6.10	0.00	0.04	0.01	0.00	29.05	75%	Wood/Fabric	HVLP			
DuPont 7601S	7.18	96.10%	0.0%	96.10%	0.0%	2.84%	0.0018	0.500	0.02	6.90	6.90	0.01	0.15	0.03	0.00	242.96	75%	Wood/Fabric	HVLP			
BASF DC76NR	7.58	64.84%	6.6%	58.0%	10.0%	23.00%	0.0023	0.500	0.03	4.89	4.40	0.01	0.12	0.02	0.00	19.13	75%	Wood/Fabric	HVLP			
BASF LH200	6.92	29.00%	0.0%	29.00%	0.0%	66.00%	0.0005	0.500	0.01	2.50	2.50	0.00	0.01	0.00	0.00	3.79	75%	Wood/Fabric	HVLP			
BASF 352-500	7.60	98.68%	0.0%	98.68%	0.0%	1.00%	0.0001	0.500	0.00	7.50	7.50	0.00	0.01	0.00	0.00	749.97	75%	Plastic	HVLP			
BASF UR500	6.59	94.10%	1.5%	92.58%	2.0%	4.00%	0.0028	0.500	0.03	6.23	6.10	0.01	0.20	0.04	0.00	152.53	75%	Plastic	HVLP			
<b>Potential Emissions:</b>												<b>0.03</b>	<b>0.62</b>	<b>0.11</b>	<b>0.01</b>							

**Final Finish (FF18)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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)	b VOC/gal solids	Transfer Efficiency	Substrate	Application Method			
3M 5990	8.31	83.04%	74.24%	9.16%	73.9%	16.53%	0.0001	0.50	0.00	2.92	0.76	0.00	0.00	0.00	0.00	4.60	100%	Metal/Plastic	Hand/manual			
3M 5936	9.67	63.00%	31.00%	32.00%	35.9%	18.77%	0.0002	0.50	0.00	4.83	3.09	0.00	0.01	0.00	0.00	16.49	100%	Metal/Plastic	Hand/manual			
ICI D7-10	7.02	100.00%	13.20%	86.80%	14.0%	0.00%	0.0136	0.50	0.18	7.09	6.09	0.04	0.99	0.18	0.00	N/A	100%	Solvent/Cleaner	Hand/manual			
ICI Acetone	6.59	100.00%	100.00%	0.00%	100.00%	0.00%	0.0023	0.50	0.03	N/A	0.00	0.00	0.00	0.00	0.00	N/A	100%	Solvent/Cleaner	Hand/manual			
ICI Isopropanol	6.59	100.00%	0.00%	100.00%	0.0%	0.00%	0.0092	0.50	0.11	6.59	6.59	0.03	0.73	0.13	0.00	N/A	100%	Solvent/Cleaner	Hand/manual			
Carroll-Campbell CC-911	9.37	69.47%	0.00%	69.47%	0.0%	0.00%	0.0249	0.50	0.30	6.51	6.51	0.08	1.94	0.35	0.00	N/A	100%	Solvent/Cleaner	Hand/manual			
Cyclo 3-31	8.17	90.00%	78.00%	12.00%	76.4%	0.09%	0.0132	0.50	0.16	4.16	0.98	0.01	0.16	0.03	0.01	1089.33	50%	Solvent/Cleaner	aerosol			
Cyclo C-192	8.34	94.00%	74.00%	20.00%	74.0%	2.00%	0.0052	0.50	0.08	6.42	1.67	0.00	0.10	0.02	0.00	83.40	50%	Solvent/Cleaner	aerosol			
ICI Mineral Sprays	6.59	100.00%	0.00%	100.00%	0.0%	0.00%	0.0115	0.50	0.14	6.59	6.59	0.04	0.91	0.17	0.00	N/A	100%	Solvent/Cleaner	Hand/manual			
Marshall Varsol Meters	11.18	0.00%	0.00%	0.00%	0.00%	100.00%	0.0002	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00%	Metal	Hand/manual			
WMI Wood Finishes M200-0014	7.29	81.48%	0.00%	81.48%	0.00%	11.56%	0.0001	0.50	0.00	9.94	5.94	0.00	0.01	0.00	0.00	51.29	100.00%	Wood	Hand/manual			
<b>Potential Emissions:</b>												<b>0.20</b>	<b>4.85</b>	<b>0.89</b>	<b>0.01</b>							

<b>Grand Totals Plant 18</b>	<b>1.92</b>	<b>46.08</b>	<b>8.41</b>	<b>0.02</b>
------------------------------	-------------	--------------	-------------	-------------

<b>Total Gallons Used (gal/day)</b>		<b>22.16</b>
<b>Total not-exempt under 326 IAC 6-3-2</b>		<b>0.33534</b>

When coating metal: **0.112** **0.020**

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

**Appendix A: Emission Calculations  
VOC and Particulate  
Plant 21**

Company Name: **Heartland Recreational Vehicles, LLC**  
Address City, IN Zip: **1001 All Pro Drive, Elkhart, IN 46514**  
Permit No./PI ID: **039-36439-00621**  
Reviewer: **Thomas Olmstead**  
Date: **February, 2016**

**Chassis Preparation (CP21)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method
C-35	9.35	70.00%	43.0%	27.0%	60.8%	11.07%	0.00249	2,500	0.15	6.44	2.52	0.02	0.38	0.07	0.00	22.80	100%	Metal	Hand/manual
<b>Potential Emissions:</b>											<b>0.02</b>	<b>0.38</b>	<b>0.07</b>	<b>0.00</b>					

**Assembly Line Operations (ALO21)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method
Sikaflex 552	12.10	1.34%	0.0%	1.3%	0.0%	97.80%	0.0085	2,500	0.51	0.16	0.16	0.00	0.08	0.02	0.00	0.17	100%	Plastic	Manual Caulk
Sikaflex 521	10.60	0.00%	0.0%	0.0%	0.0%	100.00%	0.0012	2,500	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Plastic	Manual Caulk
SL 100GP	7.92	9.00%	0.0%	9.0%	0.0%	90.32%	0.1990	2,500	11.94	0.71	0.71	0.35	8.51	1.55	0.00	0.79	100%	Wood/Fabric	Manual Caulk
Manus 25-AM	11.68	0.11%	0.0%	0.1%	0.0%	99.83%	0.1265	2,500	7.59	0.01	0.01	0.00	0.10	0.02	0.00	0.01	100%	Wood/Fabric	Manual Caulk
Manus 501-A	10.68	1.69%	0.0%	1.7%	0.0%	97.55%	0.2185	2,500	13.11	0.18	0.18	0.10	2.37	0.43	0.00	0.19	100%	Wood/Fabric	Manual Caulk
Manus 75-AM	14.19	0.00%	0.0%	0.0%	0.0%	100.00%	0.1265	2,500	7.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Wood/Fabric	Manual Caulk
StaPut SP90 <sup>1</sup>	6.08	70.30%	25.0%	45.3%	18.2%	41.93%	0.8165	2,500	48.99	3.37	2.75	5.62	134.93	24.62	0.00	6.57	100%	Wood/Fabric	non-atomized spray
StaPut SP80 <sup>1</sup>	6.18	80.90%	27.3%	53.6%	20.2%	32.07%	0.2185	2,500	13.11	4.15	3.31	1.81	43.43	7.93	0.00	10.33	100%	Wood/Fabric	non-atomized spray
Osatey 60E5	16.68	0.00%	0.0%	0.0%	0.0%	100.00%	0.0026	2,500	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Plastic	Manual Brush
IPS Corp. 771 773	7.26	100.00%	15.0%	85.0%	13.1%	13.08%	0.0357	2,500	2.14	7.10	6.17	0.55	13.20	2.41	0.00	47.25	100%	Plastic	Manual Caulk
<b>Potential Emissions:</b>											<b>6.44</b>	<b>202.61</b>	<b>36.98</b>	<b>0.00</b>					

1. IDEM, OAG has determined that application of StaPut SP80 and StaPut SP90 in RV assembly operations at this source when using non-atomizing spray does not generate particulate emissions.

**Touchup Paint Operation (TP21)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method
SW 10001	5.84	88.00%	23.23%	64.77%	20.6%	7.00%	0.0003	2.50	0.02	4.76	3.78	0.00	0.08	0.01	0.00	54.04	50%	Metal	aerosol
SW 10010	6.09	82.10%	27.06%	55.04%	25.0%	7.00%	0.0003	2.50	0.02	4.47	3.35	0.00	0.07	0.01	0.00	47.88	50%	Wood/Fabric	aerosol
BASF AM800	6.90	79.71%	8.70%	71.01%	10.9%	9.00%	0.0008	2.50	0.05	5.50	4.90	0.01	0.24	0.04	0.01	54.44	50%	Wood/Fabric	aerosol
BASF NRL Bases	8.83	69.08%	0.00%	69.08%	0.0%	21.00%	0.0006	2.50	0.03	6.10	6.10	0.01	0.21	0.04	0.00	29.05	75%	Wood/Fabric	HVLP
DuPont 7601S	7.18	96.10%	0.00%	96.10%	0.0%	2.84%	0.0018	2.50	0.11	6.90	6.90	0.03	0.76	0.14	0.00	242.96	75%	Wood/Fabric	HVLP
BASF DC76NR	7.58	64.64%	6.60%	58.04%	10.0%	23.00%	0.0023	2.50	0.14	4.89	4.40	0.03	0.61	0.11	0.02	19.13	75%	Wood/Fabric	HVLP
BASF LH200	8.92	28.00%	0.00%	28.00%	0.0%	66.00%	0.0025	2.50	0.03	2.50	2.50	0.00	0.07	0.01	0.01	3.79	75%	Wood/Fabric	HVLP
BASF 352-500	7.80	98.68%	0.00%	98.68%	0.0%	1.00%	0.0001	2.50	0.01	7.50	7.50	0.00	0.05	0.01	0.00	749.97	75%	Plastic	HVLP
BASF UR500	6.59	94.10%	1.52%	92.58%	2.0%	4.00%	0.0028	2.50	0.17	6.23	6.10	0.04	1.01	0.18	0.00	152.53	75%	Plastic	HVLP
<b>Potential Emissions:</b>											<b>0.13</b>	<b>3.09</b>	<b>0.56</b>	<b>0.04</b>					

**Final Finish (FF21)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method
3M 5990	8.31	83.40%	74.24%	9.16%	73.9%	16.53%	0.0001	2.50	0.01	2.92	0.76	0.00	0.01	0.00	0.00	4.60	100%	Metal/Plastic	Hand/manual
3M5936	9.67	63.00%	31.00%	32.00%	35.9%	18.77%	0.0002	2.50	0.01	4.83	3.09	0.00	0.04	0.01	0.00	16.49	100%	Metal/Plastic	Hand/manual
ICI DF-10	7.02	100.00%	13.20%	86.80%	14.0%	0.00%	0.0136	2.50	0.81	7.09	6.09	0.21	4.96	0.91	0.00	N/A	100%	Solvent/Cleaner	Hand/manual
ICI Acetone	6.59	100.00%	100.00%	0.00%	100.00%	0.00%	0.0023	2.50	0.14	N/A	0.00	0.00	0.00	0.00	0.00	N/A	100%	Solvent/Cleaner	Hand/manual
ICI Isopropanol	6.59	100.00%	0.00%	100.00%	0.0%	0.00%	0.0022	2.50	0.55	6.59	6.59	0.15	3.64	0.66	0.00	N/A	100%	Solvent/Cleaner	Hand/manual
Camie-Cambel CC-911	9.37	69.47%	0.00%	69.47%	0.0%	0.00%	0.0249	2.50	1.49	6.51	6.51	0.41	9.72	1.77	0.00	N/A	100%	Solvent/Cleaner	Hand/manual
Cyclo C-31	8.17	90.00%	78.00%	12.00%	76.4%	0.00%	0.0132	2.50	0.79	4.16	0.98	0.03	0.78	0.14	0.06	1089.33	50%	Solvent/Cleaner	aerosol
Cyclo C-182	8.34	94.00%	74.00%	20.00%	74.0%	2.00%	0.0052	2.50	0.31	6.42	1.67	0.02	0.52	0.09	0.01	83.40	50%	Solvent/Cleaner	aerosol
ICI Mineral Spirits	6.59	100.00%	0.00%	100.00%	0.0%	0.00%	0.0115	2.50	0.69	6.59	6.59	0.19	4.55	0.83	0.00	N/A	100%	Solvent/Cleaner	Hand/manual
Marble Varnish Makers	11.16	0.00%	0.00%	0.00%	0.00%	100.00%	0.0002	2.50	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00%	Metal	Hand/manual
RPM Wood Finishes M280-0014	7.29	81.48%	0.00%	81.48%	0.00%	11.58%	0.0001	2.50	0.01	5.94	5.94	0.00	0.04	0.01	0.01	61.29	100.00%	Wood	Hand/manual
<b>Potential Emissions:</b>											<b>1.01</b>	<b>24.26</b>	<b>4.43</b>	<b>0.07</b>					

<b>Grand Totals Plant 21</b>	<b>9.60</b>	<b>230.34</b>	<b>42.04</b>	<b>0.12</b>
------------------------------	-------------	---------------	--------------	-------------

<b>Total Gallons Used (gal/day)</b>	<b>110.76</b>	<b>When coating metal:</b>	<b>0.503</b>	<b>0.092</b>
<b>Total not-exempt under 325 IAC 6-3-2</b>	<b>1,676.7</b>			

**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 hrs/yr) \* (1 ton/2000 lbs)  
 Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lb/gal) \* (1 - Weight % Volatiles) \* (1 - Transfer efficiency) \* (8760 hrs/yr) \* (1 ton/2000 lbs)  
 Pounds VOC per Gallon of Solids = (Density (lb/gal) \* Weight % organics) / (Volume % solids)  
 Total = Worst Coating + Sum of all solvents used

**Appendix A: Emission Calculations  
VOC and Particulate  
Plant 22**

Company Name: Heartland Recreational Vehicles, LLC  
Address City IN Zip: 1001 All Pro Drive, Elkhart, IN 46514  
Permit No./Pt ID: 039-36439-00621  
Reviewer: Thomas Otmstead  
Date: February, 2016

**Chassis Preparation (CP22)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method	
C-35	9.35	70.00%	43.0%	27.0%	60.8%	11.07%	0.00249	2,500	0.15	6.44	2.52	0.02	0.38	0.07	0.00	22.80	100%	Metal	Hand/manual	
<b>Potential Emissions:</b>												<b>0.02</b>	<b>0.38</b>	<b>0.07</b>	<b>0.00</b>					

**Assembly Line Operations (AL022)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method	
Sikaflex 552	12.10	1.34%	0.0%	1.3%	0.0%	97.80%	0.0085	2,500	0.51	0.16	0.16	0.00	0.08	0.02	0.00	0.17	100%	Plastic	Manual Caulk	
Sikaflex 521	10.60	0.00%	0.0%	0.0%	0.0%	100.00%	0.0012	2,500	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Plastic	Manual Caulk	
SIL 1000P	7.92	9.00%	0.0%	9.0%	0.0%	90.32%	0.1990	2,500	11.94	0.71	0.71	0.35	8.51	1.55	0.00	0.79	100%	Wood/Fabric	Manual Caulk	
Manus 25-AM	11.68	0.11%	0.0%	0.1%	0.0%	99.83%	0.1265	2,500	7.59	0.01	0.01	0.00	0.10	0.02	0.00	0.01	100%	Wood/Fabric	Manual Caulk	
Manus 501-A	10.68	1.69%	0.0%	1.7%	0.0%	97.55%	0.2185	2,500	13.11	0.18	0.18	0.10	2.37	0.43	0.00	0.19	100%	Wood/Fabric	Manual Caulk	
Manus 75-AM	14.19	0.00%	0.0%	0.0%	0.0%	100.00%	0.1265	2,500	7.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Wood/Fabric	Manual Caulk	
StaPut SP90 <sup>1</sup>	6.08	70.30%	25.0%	45.3%	18.2%	41.93%	0.8165	2,500	48.99	3.37	2.75	5.62	134.93	24.62	0.00	6.57	100%	Wood/Fabric	non-atomized spray	
StaPut SP80 <sup>1</sup>	6.18	80.90%	27.3%	53.6%	20.2%	32.07%	0.2185	2,500	13.11	4.15	3.31	1.81	43.43	7.93	0.00	10.33	100%	Wood/Fabric	non-atomized spray	
Osatey 60E5	16.68	0.00%	0.0%	0.0%	0.0%	100.00%	0.0026	2,500	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Plastic	Manual Brush	
IPS Corp. 771 773	7.26	100.00%	15.0%	85.0%	13.1%	13.06%	0.0357	2,500	2.14	7.10	6.17	0.55	13.20	2.41	0.00	47.25	100%	Plastic	Manual Caulk	
<b>Potential Emissions:</b>												<b>8.44</b>	<b>202.61</b>	<b>36.98</b>	<b>0.00</b>					

1. IDEM, OAG has determined that application of StaPut SP80 and StaPut SP90 in RV assembly operations at this source when using non-atomizing spray does not generate particulate emissions.

**Touchup Paint Operation (TP22)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method	
SW 10001	5.84	88.00%	23.23%	64.77%	20.6%	7.00%	0.0003	2.50	0.02	4.76	3.78	0.00	0.08	0.01	0.00	54.04	50%	Metal	aerosol	
SW 10010	6.09	82.10%	27.06%	55.04%	25.0%	7.00%	0.0003	2.50	0.02	4.47	3.35	0.00	0.07	0.01	0.00	47.88	50%	Wood/Fabric	aerosol	
BASF AM800	6.90	79.71%	8.70%	71.01%	10.9%	9.00%	0.0008	2.50	0.05	5.50	4.90	0.01	0.24	0.04	0.01	54.44	50%	Wood/Fabric	aerosol	
BASF NRL Bases	8.83	69.08%	0.00%	69.08%	0.0%	21.00%	0.0006	2.50	0.03	6.10	6.10	0.01	0.21	0.04	0.00	29.05	75%	Wood/Fabric	HVLP	
DuPont 7601S	7.18	96.10%	0.00%	96.10%	0.0%	2.84%	0.0018	2.50	0.11	6.90	6.90	0.03	0.76	0.14	0.00	242.96	75%	Wood/Fabric	HVLP	
BASF DC76NR	7.58	64.0%	6.60%	58.80%	10.0%	23.00%	0.0023	2.50	0.14	4.89	4.40	0.03	0.61	0.11	0.02	19.13	75%	Wood/Fabric	HVLP	
BASF LH200	9.92	28.03%	0.00%	28.03%	0.0%	66.00%	0.0005	2.50	0.03	2.50	2.50	0.00	0.07	0.01	0.01	3.79	75%	Wood/Fabric	HVLP	
BASF 352-500	7.60	98.68%	0.00%	98.68%	0.0%	1.00%	0.0001	2.50	0.01	7.50	7.50	0.00	0.05	0.01	0.00	749.97	75%	Plastic	HVLP	
BASF UR500	6.59	94.10%	1.52%	92.58%	2.0%	4.00%	0.0028	2.50	0.17	6.23	6.10	0.04	1.01	0.18	0.00	152.53	75%	Plastic	HVLP	
<b>Potential Emissions:</b>												<b>0.13</b>	<b>3.09</b>	<b>0.56</b>	<b>0.04</b>					

**Final Finish (FZ22)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method	
3M 5990	8.31	83.40%	74.24%	9.16%	73.9%	16.53%	0.0001	2.50	0.01	2.92	0.76	0.00	0.01	0.00	0.00	4.60	100%	Metal/Plastic	Hand/manual	
3M5936	9.67	63.00%	31.00%	32.00%	35.9%	18.77%	0.0002	2.50	0.01	4.83	3.09	0.00	0.04	0.01	0.00	16.49	100%	Metal/Plastic	Hand/manual	
TDI DF-10	7.02	100.00%	13.20%	86.80%	14.0%	0.00%	0.0136	2.50	0.81	7.09	6.09	0.21	4.96	0.91	0.00	N/A	100%	Solvent/Cleaner	Hand/manual	
TDI Acetone	6.59	100.00%	100.00%	0.00%	100.00%	0.00%	0.0023	2.50	0.14	N/A	0.00	0.00	0.00	0.00	0.00	N/A	100%	Solvent/Cleaner	Hand/manual	
TDI Isopropanol	6.59	100.00%	0.00%	100.00%	0.0%	0.00%	0.0082	2.50	0.55	6.59	6.59	0.59	1.15	0.66	0.00	N/A	100%	Solvent/Cleaner	Hand/manual	
Camie-Cambell CC-911	9.37	69.47%	0.00%	69.47%	0.0%	0.00%	0.0249	2.50	1.49	6.51	6.51	0.41	9.72	1.77	0.00	N/A	100%	Solvent/Cleaner	Hand/manual	
Cyclo C-31	8.17	90.00%	78.00%	12.00%	76.4%	0.09%	0.0132	2.50	0.79	4.16	0.98	0.03	0.78	0.14	0.06	1089.33	50%	Solvent/Cleaner	aerosol	
Cyclo C-182	8.34	94.00%	74.00%	20.00%	74.0%	2.00%	0.0052	2.50	0.31	6.42	1.67	0.02	0.52	0.09	0.01	83.40	50%	Solvent/Cleaner	aerosol	
TDI Mineral Spirits	6.59	100.00%	0.00%	100.00%	0.0%	0.00%	0.0115	2.50	0.69	6.59	6.59	0.19	4.55	0.83	0.00	N/A	100%	Solvent/Cleaner	Hand/manual	
Mineral Viscous Makers	11.18	0.00%	0.00%	0.00%	0.00%	100.00%	0.0002	2.50	0.01	0.00	0.00	0.00	0.00	0.00	0.00	100.00%	Metal	Hand/manual		
RPM Wood Finishes M280-0014	7.29	81.48%	0.00%	81.48%	0.00%	11.58%	0.0001	2.50	0.01	5.94	0.00	0.00	0.04	0.01	0.00	51.29	100.00%	Wood	Hand/manual	
<b>Potential Emissions:</b>												<b>1.01</b>	<b>24.26</b>	<b>4.43</b>	<b>0.07</b>					

<b>Grand Totals Plant 22</b>	<b>9.60</b>	<b>230.34</b>	<b>42.04</b>	<b>0.12</b>
------------------------------	-------------	---------------	--------------	-------------

<b>Total Gallons Used (gal/day)</b>	<b>110.76</b>	<b>When coating metal:</b>	<b>0.503</b>	<b>0.092</b>
<b>Total not-exempt under 326 IAC 6-3-2</b>	<b>1,6787</b>			

**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 hrs/yr) \* (1 ton/2000 lbs)  
 Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lb/gal) \* (1 - Weight % Volatiles) \* (1 - Transfer efficiency) \* (8760 hrs/yr) \* (1 ton/2000 lbs)  
 Pounds VOC per Gallon of Solids = (Density (lb/gal) \* Weight % organics) / (Volume % solids)  
 Total = Worst Coating + Sum of all solvents used

**Appendix A: Emission Calculations  
VOC and Particulate  
Plant 69A**

Company Name: **Heartland Recreational Vehicles, LLC**  
Address City IN Zip: **1001 All Pro Drive, Elkhart, IN 46514**  
Permit No./Plt ID: **039-36439-00621**  
Reviewer: **Thomas Olmstead**  
Date: **February, 2016**

**Chassis Preparation (CP69A)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method		
C-35	9.35	70.00%	43.0%	27.0%	60.8%	11.07%	0.00249	2.000	0.12	6.44	2.52	0.01	0.30	0.06	0.00	22.80	100%	Metal	Hand/manual		
<b>Potential Emissions:</b>												<b>0.01</b>	<b>0.30</b>	<b>0.06</b>	<b>0.00</b>						

**Assembly Line Operations (ALO69A)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method		
Sikaflex 552	12.10	1.34%	0.0%	1.3%	0.0%	97.80%	0.0085	2.000	0.41	0.16	0.16	0.00	0.07	0.01	0.00	0.17	100%	Plastic	Manual Caulk		
Sikaflex 521	10.60	0.00%	0.0%	0.0%	0.0%	100.00%	0.0012	2.000	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Plastic	Manual Caulk		
SIL 100GP	7.92	9.00%	0.0%	9.0%	0.0%	90.32%	0.1990	2.000	9.55	0.71	0.71	0.28	6.81	1.24	0.00	0.79	100%	Wood/Fabric	Manual Caulk		
Manus 25-AM	11.68	0.11%	0.0%	0.1%	0.0%	99.83%	0.1265	2.000	6.07	0.01	0.01	0.00	0.08	0.01	0.00	0.01	100%	Wood/Fabric	Manual Caulk		
Manus 501-A	10.68	1.69%	0.0%	1.7%	0.0%	97.55%	0.2185	2.000	10.49	0.18	0.18	0.08	1.89	0.35	0.00	0.19	100%	Wood/Fabric	Manual Caulk		
Manus 75-AM	14.19	0.00%	0.0%	0.0%	0.0%	100.00%	0.1265	2.000	6.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Wood/Fabric	Manual Caulk		
StaPut SP90 <sup>1</sup>	6.08	70.30%	25.0%	45.3%	18.2%	41.93%	0.8165	2.000	39.19	3.37	2.75	4.50	107.94	19.70	0.00	6.57	100%	Wood/Fabric	non-atomized spray		
StaPut SP80 <sup>1</sup>	6.18	80.90%	27.3%	53.6%	20.2%	32.07%	0.2185	2.000	10.49	4.15	3.31	1.45	34.74	6.34	0.00	10.33	100%	Wood/Fabric	non-atomized spray		
Qatey 60E5	16.68	0.00%	0.0%	0.0%	0.0%	100.00%	0.0026	2.000	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Plastic	Manual Brush		
IPS Corp. 771, 773	7.26	100.00%	15.0%	85.0%	13.1%	13.06%	0.0357	2.000	1.71	7.10	6.17	0.44	10.56	1.93	0.00	47.25	100%	Plastic	Manual Caulk		
<b>Potential Emissions:</b>												<b>6.75</b>	<b>162.09</b>	<b>29.58</b>	<b>0.00</b>						

1. IDEM, OAQ has determined that application of StaPut SP80 and StaPut SP90 in RV assembly operations at this source when using non-atomizing spray does not generate particulate emissions.

**Touchup Paint Operation (TP69A)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method		
SW 10001	5.84	88.00%	23.23%	64.77%	20.6%	7.00%	0.0003	2.000	0.02	4.76	3.78	0.00	0.06	0.01	0.00	54.04	50%	Metal	aerosol		
SW 10010	6.09	82.10%	27.06%	55.04%	25.0%	7.00%	0.0003	2.000	0.02	4.47	3.35	0.00	0.06	0.01	0.00	47.88	50%	Wood/Fabric	aerosol		
BASF AM800	6.90	79.71%	8.70%	71.01%	10.9%	9.00%	0.0008	2.000	0.04	5.50	4.90	0.01	0.19	0.03	0.00	54.44	50%	Wood/Fabric	aerosol		
BASF NRL Bases	8.83	69.08%	0.00%	69.08%	0.0%	21.00%	0.0006	2.000	0.03	6.10	6.10	0.01	0.17	0.03	0.00	29.05	75%	Wood/Fabric	HVLP		
DuPont 7601S	7.18	96.10%	0.00%	96.10%	0.0%	2.84%	0.0018	2.000	0.09	6.90	6.90	0.03	0.61	0.11	0.00	242.96	75%	Wood/Fabric	HVLP		
BASF DC76NR	7.58	64.64%	6.60%	58.04%	10.0%	23.00%	0.0023	2.000	0.11	4.89	4.40	0.02	0.49	0.09	0.01	19.13	75%	Wood/Fabric	HVLP		
BASF LH200	8.92	28.03%	0.00%	28.03%	0.0%	66.00%	0.0005	2.000	0.02	2.50	2.50	0.00	0.06	0.01	2.01	3.79	75%	Wood/Fabric	HVLP		
BASF 352-500	7.60	98.68%	0.00%	98.68%	0.0%	1.00%	0.0001	2.000	0.01	7.50	7.50	0.00	0.04	0.01	0.00	749.97	75%	Plastic	HVLP		
BASF UR500	6.59	94.10%	1.52%	92.58%	2.0%	4.00%	0.0028	2.000	0.13	6.23	6.10	0.03	0.81	0.15	0.00	152.53	75%	Plastic	HVLP		
<b>Potential Emissions:</b>												<b>0.10</b>	<b>2.48</b>	<b>0.45</b>	<b>0.03</b>						

**Final Finish (FF69A)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method		
3M 5990	8.31	83.40%	74.24%	9.16%	73.9%	16.53%	0.0001	2.00	0.01	2.92	0.76	0.00	0.00	0.00	0.00	4.60	100%	Metal/Plastic	Hand/manual		
3M5936	9.67	63.00%	31.00%	32.00%	35.9%	18.77%	0.0002	2.00	0.01	4.83	3.09	0.00	0.03	0.01	0.00	16.49	100%	Metal/Plastic	Hand/manual		
TCI DT-10	7.02	100.00%	13.20%	86.80%	14.0%	0.00%	0.0136	2.00	0.65	7.09	6.09	0.17	3.97	0.72	0.00	N/A	100%	Solvent/Cleaner	Hand/manual		
TCI Acetone	6.59	100.00%	100.00%	0.00%	100.0%	0.00%	0.0023	2.00	0.11	N/A	0.00	0.00	0.00	0.00	0.00	N/A	100%	Solvent/Cleaner	Hand/manual		
TCI Isopropanol	6.59	100.00%	0.00%	100.00%	0.0%	0.00%	0.0092	2.00	0.44	6.59	6.59	0.12	2.91	0.53	0.00	N/A	100%	Solvent/Cleaner	Hand/manual		
Camie-Cambell CC-911	9.37	69.47%	0.00%	69.47%	0.0%	0.00%	0.0249	2.00	1.20	6.51	6.51	0.32	7.78	1.42	0.00	N/A	100%	Solvent/Cleaner	Hand/manual		
Cyclo C-31	8.17	90.00%	78.00%	12.00%	76.4%	0.09%	0.0132	2.00	0.63	4.16	0.98	0.03	0.62	0.11	0.05	1089.33	50%	Solvent/Cleaner	aerosol		
Cyclo C-192	8.34	94.00%	74.00%	20.00%	74.0%	2.00%	0.0052	2.00	0.25	6.42	1.67	0.02	0.41	0.08	0.01	83.40	50%	Solvent/Cleaner	aerosol		
TCI Mineral Spirits	6.59	100.00%	0.00%	100.00%	0.0%	0.00%	0.0115	2.00	0.55	6.59	6.59	0.15	3.64	0.66	0.00	N/A	100%	Solvent/Cleaner	Hand/manual		
Markal Various Markers	11.18	0.00%	0.00%	0.00%	0.00%	100.00%	0.0002	2.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Metal	Hand/manual		
RPM Wood Finishes M280-0014	7.29	81.48%	0.00%	81.48%	0.00%	11.58%	0.0001	2.00	0.01	5.94	5.94	0.00	0.03	0.01	0.00	51.29	100%	Wood	Hand/manual		
<b>Potential Emissions:</b>												<b>0.81</b>	<b>19.40</b>	<b>3.54</b>	<b>0.06</b>						

**Grand Totals Plant 69A**      7.68      184.27      33.63      0.09

**Total Gallons Used (gal/day)**      **88.61**  
**Total not-exempt under 326 IAC 6-3-2**      **1,341.36**

**Total when coating metal:**      **0.403**      **0.073**

**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  
VOC and Particulate  
Plant 69B**

Company Name: Heartland Recreational Vehicles, LLC  
Address City IN Zip: 1001 All Pro Drive, Elkhart, IN 46514  
Permit No./Plt ID: 039-36439-00621  
Reviewer: Thomas Olmstead  
Date: February, 2016

**Chassis Preparation (CP69B)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method	
C-35	9.35	70.00%	43.0%	27.0%	60.8%	11.07%	0.00249	2,000	0.12	6.44	2.52	0.01	0.30	0.06	0.00	22.80	100%	Metal	Hand/manual	
<b>Potential Emissions:</b>												<b>0.01</b>	<b>0.30</b>	<b>0.06</b>	<b>0.00</b>					

**Assembly Line Operations (ALO69B)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method	
Sikaflex 552	12.10	1.34%	0.0%	1.3%	0.0%	97.80%	0.0085	2,000	0.41	0.16	0.16	0.00	0.07	0.01	0.00	0.17	100%	Plastic	Manual Caulk	
Sikaflex 521	10.60	0.00%	0.0%	0.0%	0.0%	100.00%	0.0012	2,000	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Plastic	Manual Caulk	
SIL 100GP	7.92	9.00%	0.0%	9.0%	0.0%	90.32%	0.1990	2,000	9.55	0.71	0.71	0.28	6.81	1.24	0.00	0.79	100%	Wood/Fabric	Manual Caulk	
Manus 25-AM	11.68	0.11%	0.0%	0.1%	0.0%	99.83%	0.1265	2,000	6.07	0.01	0.01	0.00	0.08	0.01	0.00	0.01	100%	Wood/Fabric	Manual Caulk	
Manus 501-A	10.68	1.69%	0.0%	1.7%	0.0%	97.55%	0.2185	2,000	10.49	0.18	0.18	0.08	1.89	0.35	0.00	0.19	100%	Wood/Fabric	Manual Caulk	
Manus 75-AM	14.19	0.00%	0.0%	0.0%	0.0%	100.00%	0.1265	2,000	6.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Wood/Fabric	Manual Caulk	
StaPut SP90 <sup>1</sup>	6.08	70.30%	25.0%	45.3%	18.2%	41.93%	0.8165	2,000	39.19	3.37	2.75	4.50	107.94	19.70	0.00	6.57	100%	Wood/Fabric	non-atomized spray	
StaPut SP80 <sup>1</sup>	6.18	80.90%	27.3%	53.6%	20.2%	32.07%	0.2185	2,000	10.49	4.15	3.31	1.45	34.74	6.34	0.00	10.33	100%	Wood/Fabric	non-atomized spray	
Qatey 60E5	16.68	0.00%	0.0%	0.0%	0.0%	100.00%	0.0026	2,000	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Plastic	Manual Brush	
IPS Corp. 771, 773	7.26	100.00%	15.0%	85.0%	13.1%	13.06%	0.0357	2,000	1.71	7.10	6.17	0.44	10.56	1.93	0.00	47.25	100%	Plastic	Manual Caulk	
<b>Potential Emissions:</b>												<b>6.75</b>	<b>162.09</b>	<b>29.58</b>	<b>0.00</b>					

1. IDEM, OAQ has determined that application of StaPut SP80 and StaPut SP90 in RV assembly operations at this source when using non-atomizing spray does not generate particulate emissions.

**Touchup Paint Operation (TP69B)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method	
SW 10001	5.84	88.00%	23.23%	64.77%	20.6%	7.00%	0.0003	2,000	0.02	4.76	3.78	0.00	0.06	0.01	0.00	54.04	50%	Metal	aerosol	
SW 10010	6.09	82.10%	27.06%	55.04%	25.0%	7.00%	0.0003	2,000	0.02	4.47	3.35	0.00	0.06	0.01	0.00	47.88	50%	Wood/Fabric	aerosol	
BASF AM800	6.90	79.71%	8.70%	71.01%	10.9%	9.00%	0.0008	2,000	0.04	5.50	4.90	0.01	0.19	0.03	0.00	54.44	50%	Wood/Fabric	aerosol	
BASF NRL Bases	8.83	69.08%	0.00%	69.08%	0.0%	21.00%	0.0006	2,000	0.03	6.10	6.10	0.01	0.17	0.03	0.00	29.05	75%	Wood/Fabric	HVLP	
DuPont 7601S	7.18	96.10%	0.00%	96.10%	0.0%	2.84%	0.0018	2,000	0.09	6.90	6.90	0.03	0.61	0.11	0.00	242.06	75%	Wood/Fabric	HVLP	
BASF DC76NR	7.58	84.64%	6.60%	58.04%	10.0%	23.00%	0.0023	2,000	0.11	4.89	4.40	0.02	0.49	0.09	0.01	19.13	75%	Wood/Fabric	HVLP	
BASF LH200	8.92	28.03%	0.00%	28.03%	0.0%	66.00%	0.0005	2,000	0.02	2.50	2.50	0.00	0.06	0.01	0.01	3.79	75%	Wood/Fabric	HVLP	
BASF 352-500	7.60	98.68%	0.00%	98.68%	0.0%	1.00%	0.0001	2,000	0.01	7.50	7.50	0.00	0.04	0.01	0.00	749.97	75%	Plastic	HVLP	
BASF UR500	6.59	94.10%	1.52%	92.58%	2.0%	4.00%	0.0028	2,000	0.13	6.23	6.10	0.03	0.81	0.15	0.00	152.53	75%	Plastic	HVLP	
<b>Potential Emissions:</b>												<b>0.10</b>	<b>2.48</b>	<b>0.45</b>	<b>0.03</b>					

**Final Finish (FF69B)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method	
3M 5990	8.31	83.40%	74.24%	9.16%	73.9%	16.53%	0.0001	2.00	0.01	2.92	0.76	0.00	0.00	0.00	0.00	4.60	100%	Metal/Plastic	Hand/manual	
3M5936	9.67	63.00%	31.00%	32.00%	35.9%	18.77%	0.0002	2.00	0.01	4.83	3.09	0.00	0.03	0.01	0.00	16.49	100%	Metal/Plastic	Hand/manual	
ICI D7-10	7.02	100.00%	13.20%	86.80%	14.0%	0.00%	0.0136	2.00	0.65	7.09	6.09	0.17	3.97	0.72	0.00	N/A	100%	Solvent/Cleaner	Hand/manual	
ICI Acetone	6.59	100.00%	100.00%	0.00%	100.00%	0.00%	0.0023	2.00	0.11	N/A	0.00	0.00	0.00	0.00	0.00	N/A	100%	Solvent/Cleaner	Hand/manual	
ICI Isopropyl	6.59	100.00%	0.00%	100.00%	0.0%	0.00%	0.0092	2.00	0.44	6.59	6.59	0.12	2.91	0.53	0.00	N/A	100%	Solvent/Cleaner	Hand/manual	
Camie-Cambell CC-911	9.37	69.47%	0.00%	69.47%	0.0%	0.00%	0.0249	2.00	1.20	6.51	6.51	0.32	7.78	1.42	0.00	N/A	100%	Solvent/Cleaner	Hand/manual	
Cyclo C-31	8.17	90.00%	78.00%	12.00%	76.4%	0.09%	0.0132	2.00	0.63	4.16	0.98	0.03	0.62	0.11	0.05	1089.33	50%	Solvent/Cleaner	aerosol	
Cyclo C-182	8.34	94.00%	74.00%	20.00%	74.0%	2.00%	0.0052	2.00	0.25	6.42	1.67	0.02	0.41	0.08	0.01	83.40	50%	Solvent/Cleaner	aerosol	
ICI Mineral Spirits	6.59	100.00%	0.00%	100.00%	0.0%	0.00%	0.0115	2.00	0.55	6.59	6.59	0.15	3.64	0.66	0.00	N/A	100%	Solvent/Cleaner	Hand/manual	
Markal Various Markers	11.18	0.00%	0.00%	0.00%	0.00%	100.00%	0.0002	2.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Metal	Hand/manual	
RPM Wood Finishes M280-0014	7.29	81.48%	0.00%	81.48%	0.00%	11.58%	0.0001	2.00	0.01	5.94	5.94	0.00	0.03	0.01	0.00	51.29	100%	Wood	Hand/manual	
<b>Potential Emissions:</b>												<b>0.81</b>	<b>19.40</b>	<b>3.54</b>	<b>0.06</b>					

**Grand Totals Plant 69B**      7.68      184.27      33.63      0.09

Total Gallons Used (gal/day)      **88.61**  
Total not-exempt under 326 IAC 6-3-2      **1,34136**

Total when coating metal:      **0.403**      **0.073**

**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-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  
Plant 2 HAPs**

**Company Name:** Heartland Recreational Vehicles, LLC  
**Address City IN Zip:** 1001 All Pro Drive, Elkhart, IN 46514  
**Permit No./Plt ID:** 039-36439-00621  
**Reviewer:** Thomas Olmstead  
**Date:** February, 2016

**Chassis Preparation (CP2)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyd	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)
C-35	9.35	0.0029	1.50	0.00%	0.90%	0.00%	0.00%	9.90%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.02	0.00	0.00
<b>Potential Emissions:</b>											<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.02</b>	<b>0.00</b>	<b>0.00</b>

**Assembly Line Operations (AL02)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyd	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)
Sikaflex 552	12.10	0.0085	1.500	1.34%	0.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.009	0.01	0.00	0.00	0.00	0.00	0.00
Sikaflex 521	10.60	0.0112	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SIL 100GP	7.92	0.1990	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manus 25-AM	11.68	0.1265	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manus 501-A	10.68	0.2185	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manus 75-AM	14.19	0.1265	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sia Put SP90	6.08	0.8165	1.500	0.00%	0.00%	0.00%	0.00%	13.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	4.24	0.00	0.00
Oatey 60E5	16.68	0.0026	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IPS Corp. 771, 773	7.26	0.0357	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Potential Emissions:</b>											<b>0.009</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>	<b>4.24</b>	<b>0.00</b>	<b>0.00</b>

**Touchup Paint Operation (TP2)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Hexamethylene diisocyanate	Weight % Ethyl Benzene	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % MIBK	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Hexamethylene-1,6 diisocyanate Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	MIBK Emissions (ton/yr)
SW 10001	5.84	0.0003	1.500	0.00%	16.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.002	0.000	0.000	0.000	0.000	0.000
SW 10010	6.09	0.0003	1.500	0.00%	10.00%	0.00%	0.10%	0.00%	0.00%	0.00%	0.00%	0.000	0.001	0.000	0.000	0.000	0.000	0.000
BASF AM800	6.90	0.0008	1.500	1.00%	10.00%	0.00%	0.30%	0.00%	0.00%	0.00%	0.00%	0.000	0.004	0.000	0.000	0.000	0.000	0.000
BASF NRL Bases	8.83	0.0006	1.500	35.00%	0.00%	0.00%	10.00%	0.00%	16.00%	45.00%	0.012	0.000	0.000	0.003	0.000	0.005	0.015	0.015
DuPont 7601S	7.18	0.0018	1.500	13.00%	28.00%	0.00%	3.30%	0.00%	0.00%	0.00%	0.011	0.024	0.000	0.003	0.000	0.000	0.000	0.000
BASF DC78NR	7.58	0.0023	1.500	6.00%	0.00%	0.00%	1.00%	0.00%	0.00%	6.00%	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.007
BASF LH200	8.92	0.0005	1.500	0.00%	13.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000
BASF 352-500	7.60	0.0001	1.500	15.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BASF UR500	6.59	0.0028	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Potential Emissions:</b>											<b>0.031</b>	<b>0.035</b>	<b>0.000</b>	<b>0.008</b>	<b>0.000</b>	<b>0.000</b>	<b>0.005</b>	<b>0.022</b>

**Touchup Paint Operation (TP2)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Methanol	Weight % Ethyl Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Formaldehyd	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Methanol Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Formaldehyde emissions (ton/yr)	
3M 5990	8.31	0.0001	1.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
3M5936	9.67	0.0002	1.50	1.00%	0.00%	0.00%	0.10%	0.00%	0.00%	0.01%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TICI DT-10	7.02	0.0136	1.50	0.00%	67.00%	19.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.419	0.119	0.000	0.000	0.000	0.000	
TICI Acetone	6.59	0.0023	1.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TICI Isopropanol	6.59	0.0092	1.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Camie-Cambell CC-911	9.37	0.0249	1.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Cyclo C-31	8.17	0.0132	1.50	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.035	0.000	
Cyclo C-192	8.34	0.0052	1.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TICI Mineral Spirits	6.59	0.0115	1.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Markal Various Markers	11.18	0.0002	1.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
RPM Wood Finishes M280-0014	7.29	0.0001	1.50	3.00%	0.00%	0.00%	1.00%	1.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
<b>Potential Emissions:</b>											<b>0.000</b>	<b>0.419</b>	<b>0.119</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.035</b>	<b>0.000</b>

<b>Total HAPs</b>	<b>4.95</b>
-------------------	-------------

**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: Emission Calculations  
Plant 7A HAPs**

**Company Name: Heartland Recreational Vehicles, LLC  
Address City IN Zip: 1001 All Pro Drive, Elkhart, IN 46514  
Permit No./Plt ID: 039-36439-00621  
Reviewer: Thomas Olmstead  
Date: February, 2016**

**Chassis Preparation (CP7A)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyd	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)
C-35	9.35	0.0025	2.75	0.00%	0.90%	0.00%	0.00%	9.90%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.03	0.00	0.00
<b>Potential Emissions:</b>											<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.03</b>	<b>0.00</b>	<b>0.00</b>

**Assembly Line Operations (AL07A)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyd	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)
Sikalflex 552	12.10	0.0085	2.750	1.34%	0.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.017	0.01	0.00	0.00	0.00	0.00	0.00
Sikalflex 521	10.60	0.0012	2.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SIL 100GP	7.92	0.1990	2.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manus 25-AM	11.68	0.1265	2.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manus 501-A	10.68	0.2185	2.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manus 75-AM	14.19	0.1265	2.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sia Put SP90	6.08	0.8165	2.750	0.00%	0.00%	0.00%	0.00%	13.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	7.77	0.00	0.00
Catey 60E5	16.68	0.0026	2.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IPS Corp. 771, 773	7.26	0.0357	2.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Potential Emissions:</b>											<b>0.017</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>	<b>7.77</b>	<b>0.00</b>	<b>0.00</b>

**Touchup Paint Operation (TP7A)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % xamethylene diisocyanate	Weight % Ethyl Benzen	Weight % Hexane	Weight % Glycol Ethers	Weight % MIBK	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Hexamethylene-1,6 diisocyanate Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	MIBK Emissions (ton/yr)
SW 10001	5.84	0.0003	2.750	0.00%	16.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.004	0.000	0.000	0.000	0.000	0.000
SW 10010	6.09	0.0003	2.750	0.00%	10.00%	0.00%	0.10%	0.00%	0.00%	0.00%	0.000	0.003	0.000	0.000	0.000	0.000	0.000
BASF AM800	6.90	0.0008	2.750	1.00%	10.00%	0.00%	0.30%	0.00%	0.00%	0.00%	0.001	0.007	0.000	0.000	0.000	0.000	0.000
BASF NRL Bases	8.83	0.0006	2.750	35.00%	0.00%	0.00%	10.00%	0.00%	16.00%	45.00%	0.021	0.000	0.000	0.006	0.000	0.010	0.028
DuPont 7601S	7.18	0.0018	2.750	13.00%	28.00%	0.00%	3.30%	0.00%	0.00%	0.00%	0.021	0.045	0.000	0.005	0.000	0.000	0.000
BASF DC76NR	7.58	0.0023	2.750	6.00%	0.00%	0.00%	1.00%	0.00%	0.00%	6.00%	0.013	0.000	0.000	0.002	0.000	0.000	0.013
BASF LH200	8.92	0.0005	2.750	0.00%	13.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.006	0.000	0.000	0.000	0.000	0.000
BASF 352-500	7.60	0.0001	2.750	15.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.002	0.000	0.000	0.001	0.000	0.000	0.000
BASF UR500	6.59	0.0028	2.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Potential Emissions:</b>											<b>0.057</b>	<b>0.064</b>	<b>0.000</b>	<b>0.014</b>	<b>0.000</b>	<b>0.010</b>	<b>0.040</b>

**Final Finish (FF7A)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Methanol	Weight % Ethyl Benzen	Weight % Hexane	Weight % Glycol Ethers	Weight % Formaldehyd	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Methanol Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Formaldehy de emissions (ton/yr)
3M 5990	8.31	0.0001	2.75	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3M5936	9.67	0.0002	2.75	1.00%	0.00%	0.00%	0.10%	0.00%	0.00%	0.01%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCI DT-10	7.02	0.0136	2.75	0.00%	67.00%	19.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.769	0.218	0.000	0.000	0.000	0.000
TCI Acetone	6.59	0.0023	2.75	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCI Isopropanol	6.59	0.0092	2.75	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Camie-Cambell CC-911	9.37	0.0249	2.75	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cyelo C-31	8.17	0.0132	2.75	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.065	0.000
Cyelo C-192	8.34	0.0052	2.75	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCI Mineral Spirits	6.59	0.0115	2.75	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Markal Various Markers	11.18	0.0002	2.75	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RPM Wood Finishes M280-0014	7.29	0.0001	2.75	3.00%	0.00%	0.00%	1.00%	1.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Potential Emissions:</b>											<b>0.001</b>	<b>0.769</b>	<b>0.218</b>	<b>0.000</b>	<b>0.000</b>	<b>0.065</b>	<b>0.000</b>

**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

**Total HAPs 9.07**

**Appendix A: Emission Calculations  
Plant 7B HAPs**

**Company Name: Heartland Recreational Vehicles, LLC  
Address City IN Zip: 1001 All Pro Drive, Elkhart, IN 46514  
Permit No./Plt ID: 039-36439-00621  
Reviewer: Thomas Olmstead  
Date: February, 2016**

**Chassis Preparation (CP7B)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyd	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)
C-35	9.35	0.0025	2.75	0.00%	0.90%	0.00%	0.00%	9.90%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.03	0.00	0.00
<b>Potential Emissions:</b>											<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.03</b>	<b>0.00</b>	<b>0.00</b>

**Assembly Line Operations (ALO7B)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyd	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)
Sikalflex 552	12.10	0.0085	2.750	1.34%	0.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.017	0.01	0.00	0.00	0.00	0.00	0.00
Sikalflex 521	10.60	0.0012	2.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SIL 100GP	7.92	0.1990	2.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manus 25-AM	11.68	0.1265	2.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manus 501-A	10.68	0.2185	2.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manus 75-AM	14.19	0.1265	2.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sia Put SP90	6.08	0.8165	2.750	0.00%	0.00%	0.00%	0.00%	13.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	7.77	0.00	0.00
Catey 60E5	16.68	0.0026	2.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IPS Corp. 771, 773	7.26	0.0357	2.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Potential Emissions:</b>											<b>0.017</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>	<b>7.77</b>	<b>0.00</b>	<b>0.00</b>

**Touchup Paint Operation (TP7B)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % xamethylene diisocyanate	Weight % Ethyl Benzen	Weight % Hexane	Weight % Glycol Ethers	Weight % MIBK	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Hexamethylene-1,6 diisocyanate Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	MIBK Emissions (ton/yr)
SW 10001	5.84	0.0003	2.750	0.00%	16.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.004	0.000	0.000	0.000	0.000	0.000
SW 10010	6.09	0.0003	2.750	0.00%	10.00%	0.00%	0.10%	0.00%	0.00%	0.00%	0.000	0.003	0.000	0.000	0.000	0.000	0.000
BASF AM800	6.90	0.0008	2.750	1.00%	10.00%	0.00%	0.30%	0.00%	0.00%	0.00%	0.001	0.007	0.000	0.000	0.000	0.000	0.000
BASF NRL Bases	8.83	0.0006	2.750	35.00%	0.00%	0.00%	10.00%	0.00%	16.00%	45.00%	0.021	0.000	0.000	0.006	0.000	0.010	0.028
DuPont 7601S	7.18	0.0018	2.750	13.00%	28.00%	0.00%	3.30%	0.00%	0.00%	0.00%	0.021	0.045	0.000	0.005	0.000	0.000	0.000
BASF DC76NR	7.58	0.0023	2.750	6.00%	0.00%	0.00%	1.00%	0.00%	0.00%	6.00%	0.013	0.000	0.000	0.002	0.000	0.000	0.013
BASF LH200	8.92	0.0005	2.750	0.00%	13.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.006	0.000	0.000	0.000	0.000	0.000
BASF 352-500	7.60	0.0001	2.750	15.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.002	0.000	0.000	0.001	0.000	0.000	0.000
BASF UR500	6.59	0.0028	2.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Potential Emissions:</b>											<b>0.057</b>	<b>0.064</b>	<b>0.000</b>	<b>0.014</b>	<b>0.000</b>	<b>0.010</b>	<b>0.040</b>

**Final Finish (FF7B)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Methanol	Weight % Ethyl Benzen	Weight % Hexane	Weight % Glycol Ethers	Weight % Formaldehyd	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Methanol Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Formaldehyd emissions (ton/yr)
3M 5990	8.31	0.0001	2.75	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3M5936	9.67	0.0002	2.75	1.00%	0.00%	0.00%	0.10%	0.00%	0.00%	0.01%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCI DT-10	7.02	0.0136	2.75	0.00%	0.00%	19.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.769	0.218	0.000	0.000	0.000	0.000
TCI Acetone	6.59	0.0023	2.75	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCI Isopropanol	6.59	0.0092	2.75	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Camie-Cambell CC-911	9.37	0.0249	2.75	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cyelo C-31	8.17	0.0132	2.75	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.065	0.000
Cyelo C-192	8.34	0.0052	2.75	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCI Mineral Spirits	6.59	0.0115	2.75	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Markal Various Markers	11.18	0.0002	2.75	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RPM Wood Finishes M280-0014	7.29	0.0001	2.75	3.00%	0.00%	0.00%	1.00%	1.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Potential Emissions:</b>											<b>0.001</b>	<b>0.769</b>	<b>0.218</b>	<b>0.000</b>	<b>0.000</b>	<b>0.065</b>	<b>0.000</b>

**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

<b>Total HAPs</b>	<b>9.07</b>
-------------------	-------------

**Appendix A: Emission Calculations  
Plant 17 HAPs**

**Company Name:** Heartland Recreational Vehicles, LLC  
**Address City IN Zip:** 1001 All Pro Drive, Elkhart, IN 46514  
**Permit No./Plt ID:** 039-36439-00621  
**Reviewer:** Thomas Olmstead  
**Date:** February, 2016

**Chassis Preparation (CP17)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyd	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyd e Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)
C-35	9.35	0.0029	0.50	0.00%	0.90%	0.00%	0.00%	9.90%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.01	0.00	0.00
<b>Potential Emissions:</b>											<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>

**Assembly Line Operations (ALO17)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyd	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyd e Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)
Sikaflex 552	12.10	0.0085	0.500	1.34%	0.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.003	0.00	0.00	0.00	0.00	0.00	0.00
Sikaflex 521	10.60	0.0012	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SIL 100GP	7.92	0.1990	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manus 25-AM	11.68	0.1265	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manus 501-A	10.68	0.2185	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manus 75-AM	14.19	0.1265	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sia Put SP90	6.08	0.8165	0.500	0.00%	0.00%	0.00%	0.00%	13.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	1.41	0.00	0.00
Oatey 60E5	16.68	0.0026	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IPS Corp. 771, 773	7.26	0.0357	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Potential Emissions:</b>											<b>0.003</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1.41</b>	<b>0.00</b>	<b>0.00</b>

**Touchup Paint Operation (TP17)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % xamethylene-diisocyanate	Weight % Ethyl Benzen	Weight % Hexane	Weight % Glycol Ethers	Weight % MIBK	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Hexamethyle ne-1,6 diisocyanate Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	MIBK Emissions (ton/yr)
SW 10001	5.84	0.0003	0.500	0.00%	16.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.001	0.000	0.000	0.000	0.000	0.000
SW 10010	6.09	0.0003	0.500	0.00%	10.00%	0.00%	0.10%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BASF AM800	6.90	0.0008	0.500	1.00%	10.00%	0.00%	0.30%	0.00%	0.00%	0.00%	0.000	0.001	0.000	0.000	0.000	0.000	0.000
BASF NRL Bases	8.83	0.0006	0.500	35.00%	0.00%	0.00%	10.00%	0.00%	16.00%	45.00%	0.004	0.000	0.000	0.001	0.000	0.002	0.005
DuPont 7601S	7.18	0.0018	0.500	13.00%	28.00%	0.00%	3.30%	0.00%	0.00%	0.00%	0.004	0.008	0.000	0.001	0.000	0.000	0.000
BASF DC78NR	7.58	0.0023	0.500	6.00%	0.00%	0.00%	1.00%	0.00%	0.00%	6.00%	0.002	0.000	0.000	0.000	0.000	0.000	0.002
BASF LH200	8.92	0.0005	0.500	0.00%	13.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.001	0.000	0.000	0.000	0.000	0.000
BASF 352-500	7.60	0.0001	0.500	15.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BASF UR500	6.59	0.0028	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Potential Emissions:</b>											<b>0.010</b>	<b>0.012</b>	<b>0.000</b>	<b>0.003</b>	<b>0.000</b>	<b>0.002</b>	<b>0.007</b>

**Final Finish (FF17)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Methanol	Weight % Ethyl Benzen	Weight % Hexane	Weight % Glycol Ethers	Weight % Formaldehyd	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Methanol Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Formaldehyd e emissions (ton/yr)
3M 5990	8.31	0.0001	0.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3M5936	9.67	0.0002	0.50	1.00%	0.00%	0.00%	0.10%	0.00%	0.00%	0.01%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCI DT-10	7.02	0.0136	0.50	0.00%	0.00%	19.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.140	0.040	0.000	0.000	0.000	0.000
TCI Acetone	6.59	0.0023	0.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCI Isopropanol	6.59	0.0092	0.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Camie-Cambell CC-911	9.37	0.0249	0.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cyclo C-31	8.17	0.0132	0.50	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.012	0.000
Cyclo C-192	8.34	0.0052	0.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCI Mineral Spirits	6.59	0.0115	0.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Markal Various Markers	11.18	0.0002	0.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RPM Wood Finishes M280-0014	7.29	0.0001	0.50	3.00%	0.00%	0.00%	1.00%	1.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Potential Emissions:</b>											<b>0.000</b>	<b>0.140</b>	<b>0.040</b>	<b>0.000</b>	<b>0.000</b>	<b>0.012</b>	<b>0.000</b>

**Total HAPs 1.65**

**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: Emission Calculations  
Plant 18 HAPs**

**Company Name: Heartland Recreational Vehicles, LLC  
Address City IN Zip: 1001 All Pro Drive, Elkhart, IN 46514  
Permit No./Plt ID: 039-36439-00621  
Reviewer: Thomas Olmstead  
Date: February, 2016**

**Chassis Preparation (CP18)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyde	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)
C-35	9.35	0.0029	0.50	0.00%	0.90%	0.00%	0.00%	9.90%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.01	0.00	0.00
<b>Potential Emissions:</b>											<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>

**Assembly Line Operations (ALO18)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyde	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)	
Sikaflex 552	12.10	0.0085	0.500	1.34%	0.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.003	0.00	0.00	0.00	0.00	0.00	0.00	
Sikaflex 521	10.60	0.0012	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SIL 100GP	7.92	0.1990	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Manus 25-AM	11.68	0.1265	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Manus 501-A	10.68	0.2185	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Manus 75-AM	14.19	0.1265	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Sia Put SP90	6.08	0.8165	0.500	0.00%	0.00%	0.00%	0.00%	13.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	1.41	0.00	0.00	
Oatey 60E5	16.68	0.0026	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
IPS Corp. 771, 773	7.26	0.0357	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>Potential Emissions:</b>											<b>0.003</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1.41</b>	<b>0.00</b>	<b>0.00</b>

**Touchup Paint Operation (TP18)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Xamethylene diisocyanate	Weight % Ethyl Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % MIBK	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Hexamethylene-1,6 diisocyanate Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	MIBK Emissions (ton/yr)
SW 10001	5.84	0.0003	0.500	0.00%	16.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.001	0.000	0.000	0.000	0.000	0.000
SW 10010	6.09	0.0003	0.500	0.00%	10.00%	0.00%	0.10%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BASF AM800	6.90	0.0008	0.500	1.00%	10.00%	0.00%	0.39%	0.00%	0.00%	0.00%	0.000	0.001	0.000	0.000	0.000	0.000	0.000
BASF NRL Bases	8.83	0.0006	0.500	35.00%	0.00%	0.00%	10.00%	0.00%	16.00%	45.00%	0.004	0.000	0.000	0.001	0.000	0.002	0.005
DuPont 7601S	7.18	0.0018	0.500	13.00%	28.00%	0.00%	3.30%	0.00%	0.00%	0.00%	0.004	0.008	0.000	0.001	0.000	0.000	0.000
BASF DC78NR	7.58	0.0023	0.500	6.00%	0.00%	0.00%	1.00%	0.00%	0.00%	6.00%	0.002	0.000	0.000	0.000	0.000	0.000	0.002
BASF LH200	8.92	0.0005	0.500	0.00%	13.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.001	0.000	0.000	0.000	0.000	0.000
BASF 352-500	7.60	0.0001	0.500	15.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BASF UR500	6.59	0.0028	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Potential Emissions:</b>											<b>0.010</b>	<b>0.012</b>	<b>0.000</b>	<b>0.003</b>	<b>0.000</b>	<b>0.002</b>	<b>0.007</b>

**Touchup Paint Operation (TP18)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Methanol	Weight % Ethyl Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Formaldehyde	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Methanol Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Formaldehyde emissions (ton/yr)	
3M 5990	8.31	0.0001	0.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
3M5936	9.67	0.0002	0.50	1.00%	0.00%	0.00%	0.10%	0.00%	0.00%	0.01%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TCI DT-10	7.02	0.0136	0.50	0.00%	67.00%	19.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.140	0.040	0.000	0.000	0.000	0.000	
TCI Acetone	6.59	0.0023	0.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TCI Isopropanol	6.59	0.0092	0.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Camie-Cambell CC-911	9.37	0.0249	0.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Cyclo C-31	8.17	0.0132	0.50	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.012	0.000	
Cyclo C-192	8.34	0.0052	0.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TCI Mineral Spirits	6.59	0.0115	0.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Markal Various Markers	11.18	0.0002	0.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
RPM Wood Finishes M280-0014	7.29	0.0001	0.50	3.00%	0.00%	0.00%	1.00%	1.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
<b>Potential Emissions:</b>											<b>0.000</b>	<b>0.140</b>	<b>0.040</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.012</b>	<b>0.000</b>

<b>Total HAPs</b>	<b>1.65</b>
-------------------	-------------

**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: Emission Calculations  
Plant 21 HAPs**

**Company Name:** Heartland Recreational Vehicles, LLC  
**Address City IN Zip:** 1001 All Pro Drive, Elkhart, IN 46514  
**Permit No./Plt ID:** 039-36439-00621  
**Reviewer:** Thomas Olmstead  
**Date:** February, 2016

**Chassis Preparation (CP21)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyde	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)
C-35	9.35	0.0025	2.50	0.00%	0.90%	0.00%	0.00%	9.90%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.03	0.00	0.00
<b>Potential Emissions:</b>											<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.03</b>	<b>0.00</b>	<b>0.00</b>

**Assembly Line Operations (ALO21)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyde	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)
Sikaflex 552	12.10	0.0085	2.50	1.34%	0.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.015	0.01	0.00	0.00	0.00	0.00	0.00
Sikaflex 521	10.60	0.0012	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SIL 100GP	7.92	0.1990	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manus 25-AM	11.68	0.1265	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manus 501-A	10.68	0.2185	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manus 75-AM	14.19	0.1265	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sia Put SP90	6.08	0.8165	2.50	0.00%	0.00%	0.00%	0.00%	13.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	7.07	0.00	0.00
Oatey 60E5	16.68	0.0026	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IPS Corp. 771, 773	7.26	0.0357	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Potential Emissions:</b>											<b>0.015</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>	<b>7.07</b>	<b>0.00</b>	<b>0.00</b>

**Touchup Paint Operation (TP21)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % xamethylene-diisocyanate	Weight % Ethyl Benzen	Weight % Hexane	Weight % Glycol Ethers	Weight % MIBK	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Hexamethylene-1,6 diisocyanate Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	MIBK Emissions (ton/yr)
SW 10001	5.84	0.0003	2.50	0.00%	16.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.004	0.000	0.000	0.000	0.000	0.000
SW 10010	6.09	0.0003	2.50	0.00%	10.00%	0.00%	0.10%	0.00%	0.00%	0.00%	0.000	0.002	0.000	0.000	0.000	0.000	0.000
BASF AM800	6.90	0.0008	2.50	1.00%	10.00%	0.00%	0.30%	0.00%	0.00%	0.00%	0.001	0.006	0.000	0.000	0.000	0.000	0.000
BASF NRL Bases	8.83	0.0006	2.50	35.00%	0.00%	0.00%	10.00%	0.00%	16.00%	45.00%	0.019	0.000	0.000	0.006	0.000	0.009	0.025
DuPont 7601S	7.18	0.0018	2.50	13.00%	28.00%	0.00%	3.30%	0.00%	0.00%	0.00%	0.019	0.041	0.000	0.005	0.000	0.000	0.000
BASF DC78NR	7.58	0.0023	2.50	6.00%	0.00%	0.00%	1.00%	0.00%	0.00%	6.00%	0.011	0.000	0.000	0.002	0.000	0.000	0.011
BASF LH200	8.92	0.0005	2.50	0.00%	13.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.006	0.000	0.000	0.000	0.000	0.000
BASF 352-500	7.60	0.0001	2.50	15.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.001	0.000	0.000	0.000	0.000	0.000	0.000
BASF UR500	6.59	0.0028	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Potential Emissions:</b>											<b>0.052</b>	<b>0.058</b>	<b>0.000</b>	<b>0.013</b>	<b>0.000</b>	<b>0.009</b>	<b>0.036</b>

**Final Finish (FF21)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Methanol	Weight % Ethyl Benzen	Weight % Hexane	Weight % Glycol Ethers	Weight % Formaldehyde	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Methanol Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Formaldehyde emissions (ton/yr)
3M 5990	8.31	0.0001	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3M5936	9.67	0.0002	2.50	1.00%	0.00%	0.00%	0.10%	0.00%	0.00%	0.01%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCI DT-10	7.02	0.0136	2.50	0.00%	67.00%	19.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.699	0.198	0.000	0.000	0.000	0.000
TCI Acetone	6.59	0.0023	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCI Isopropanol	6.59	0.0092	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Camie-Cambell CC-911	9.37	0.0249	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cyclo C-31	8.17	0.0132	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.059	0.000
Cyclo C-192	8.34	0.0052	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCI Mineral Spirits	6.59	0.0115	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Markal Various Markers	11.18	0.0002	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RPM Wood Finishes M280-0014	7.29	0.0001	2.50	3.00%	0.00%	0.00%	1.00%	1.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Potential Emissions:</b>											<b>0.001</b>	<b>0.699</b>	<b>0.198</b>	<b>0.000</b>	<b>0.000</b>	<b>0.059</b>	<b>0.000</b>

**Total HAPs 8.25**

**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: Emission Calculations  
Plant 22 HAPs**

**Company Name:** Heartland Recreational Vehicles, LLC  
**Address City IN Zip:** 1001 All Pro Drive, Elkhart, IN 46514  
**Permit No./Plt ID:** 039-36439-00621  
**Reviewer:** Thomas Olmstead  
**Date:** February, 2016

**Chassis Preparation (CP22)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyde	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)
C-35	9.35	0.0025	2.50	0.00%	0.90%	0.00%	0.00%	9.90%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.03	0.00	0.00
<b>Potential Emissions:</b>											<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.03</b>	<b>0.00</b>	<b>0.00</b>

**Touchup Paint Operation (TP22)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyde	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)	
Sikaflex 552	12.10	0.0085	2.50	1.34%	0.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.015	0.01	0.00	0.00	0.00	0.00	0.00	
Sikaflex 521	10.60	0.0012	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SIL 100GP	7.92	0.1990	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Manus 25-AM	11.68	0.1265	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Manus 501-A	10.68	0.2185	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Manus 75-AM	14.19	0.1265	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Sia Put SP90	6.08	0.8165	2.50	0.00%	0.00%	0.00%	0.00%	13.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	7.07	0.00	
Oatey 60E5	16.68	0.0026	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
IPS Corp. 771, 773	7.26	0.0357	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>Potential Emissions:</b>											<b>0.015</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>7.07</b>	<b>0.00</b>	<b>0.00</b>

**Touchup Paint Operation (TP22)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Xamethylene diisocyanate	Weight % Ethyl Benzen	Weight % Hexane	Weight % Glycol Ethers	Weight % MIBK	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Hexamethylene-1,6 diisocyanate Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	MBK Emissions (ton/yr)
SW 10001	5.84	0.0003	2.50	0.00%	16.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.004	0.000	0.000	0.000	0.000	0.000
SW 10010	6.09	0.0003	2.50	0.00%	10.00%	0.00%	0.10%	0.00%	0.00%	0.00%	0.000	0.002	0.000	0.000	0.000	0.000	0.000
BASF AM800	6.90	0.0008	2.50	1.00%	10.00%	0.00%	0.30%	0.00%	0.00%	0.00%	0.001	0.006	0.000	0.000	0.000	0.000	0.000
BASF NRL Bases	8.83	0.0006	2.50	35.00%	0.00%	0.00%	10.00%	0.00%	16.00%	45.00%	0.019	0.000	0.000	0.006	0.000	0.009	0.025
DuPont 7601S	7.18	0.0018	2.50	13.00%	28.00%	0.00%	3.30%	0.00%	0.00%	0.00%	0.019	0.041	0.000	0.005	0.000	0.000	0.000
BASF DC78NR	7.58	0.0023	2.50	6.00%	0.00%	0.00%	1.00%	0.00%	0.00%	6.00%	0.011	0.000	0.000	0.002	0.000	0.000	0.011
BASF LH200	8.92	0.0005	2.50	0.00%	13.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.006	0.000	0.000	0.000	0.000	0.000
BASF 352-500	7.60	0.0001	2.50	15.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.001	0.000	0.000	0.000	0.000	0.000	0.000
BASF UR500	6.59	0.0028	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Potential Emissions:</b>											<b>0.052</b>	<b>0.058</b>	<b>0.000</b>	<b>0.013</b>	<b>0.000</b>	<b>0.009</b>	<b>0.036</b>

**Final Finish (FF22)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Methanol	Weight % Ethyl Benzen	Weight % Hexane	Weight % Glycol Ethers	Weight % Formaldehyde	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Methanol Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Formaldehyde emissions (ton/yr)
3M 5990	8.31	0.0001	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3M5936	9.67	0.0002	2.50	1.00%	0.00%	0.00%	0.10%	0.00%	0.00%	0.01%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCI DT-10	7.02	0.0136	2.50	0.00%	67.00%	0.00%	19.00%	0.00%	0.00%	0.00%	0.000	0.699	0.198	0.000	0.000	0.000	0.000
TCI Acetone	6.59	0.0023	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCI Isopropanol	6.59	0.0092	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Camie-Cambell CC-911	9.37	0.0249	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cyclo C-31	8.17	0.0132	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.059	0.000
Cyclo C-192	8.34	0.0052	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCI Mineral Sprits	6.59	0.0115	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Markal Various Markers	11.18	0.0002	2.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RPM Wood Finishes M280-0014	7.29	0.0001	2.50	3.00%	0.00%	0.00%	1.00%	1.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Potential Emissions:</b>											<b>0.001</b>	<b>0.699</b>	<b>0.198</b>	<b>0.000</b>	<b>0.000</b>	<b>0.059</b>	<b>0.000</b>

**Total HAPs 8.25**

**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: Emission Calculations  
Plant 69A HAPs**

**Company Name: Heartland Recreational Vehicles, LLC  
Address City IN Zip: 1001 All Pro Drive, Elkhart, IN 46514  
Permit No./Plt ID: 039-36439-00621  
Reviewer: Thomas Olmstead  
Date: February, 2016**

**Chassis Preparation (CP69A)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyd	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyd e Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)
C-35	9.35	0.0025	2.00	0.00%	0.90%	0.00%	0.00%	9.90%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.02	0.00	0.00
<b>Potential Emissions:</b>											<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.02</b>	<b>0.00</b>	<b>0.00</b>

**Assembly Line Operations (ALO69A)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyd	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyd e Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)
Sikaflex 552	12.10	0.0085	2.000	1.34%	0.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.012	0.01	0.00	0.00	0.00	0.00	0.00
Sikaflex 521	10.60	0.0012	2.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SIL 100GP	7.92	0.1990	2.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manus 25-AM	11.68	0.1265	2.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manus 501-A	10.68	0.2185	2.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manus 75-AM	14.19	0.1265	2.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sia Put SP90	6.08	0.8165	2.000	0.00%	0.00%	0.00%	0.00%	13.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	5.65	0.00	0.00
Oatey 60E5	16.68	0.0026	2.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IPS Corp. 771, 773	7.26	0.0357	2.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Potential Emissions:</b>											<b>0.012</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>	<b>5.65</b>	<b>0.00</b>	<b>0.00</b>

**Touchup Paint Operation (TP69A)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % xamethylene-diisocyanate	Weight % Ethyl Benzen	Weight % Hexane	Weight % Glycol Ethers	Weight % MIBK	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Hexamethyle ne-1,6 diisocyanate Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	MIBK Emissions (ton/yr)
SW 10001	5.84	0.0003	2.000	0.00%	16.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.003	0.000	0.000	0.000	0.000	0.000
SW 10010	6.09	0.0003	2.000	0.00%	10.00%	0.00%	0.10%	0.00%	0.00%	0.00%	0.000	0.002	0.000	0.000	0.000	0.000	0.000
BASF AM800	6.90	0.0008	2.000	1.00%	10.00%	0.00%	0.30%	0.00%	0.00%	0.00%	0.000	0.005	0.000	0.000	0.000	0.000	0.000
BASF NRL Bases	8.83	0.0006	2.000	35.00%	0.00%	0.00%	10.00%	0.00%	16.00%	45.00%	0.016	0.000	0.000	0.004	0.000	0.007	0.020
DuPont 7601S	7.18	0.0018	2.000	13.00%	28.00%	0.00%	3.30%	0.00%	0.00%	0.00%	0.015	0.032	0.000	0.004	0.000	0.000	0.000
BASF DC76NR	7.58	0.0023	2.000	6.00%	0.00%	0.00%	1.00%	0.00%	0.00%	6.00%	0.009	0.000	0.000	0.002	0.000	0.000	0.009
BASF LH200	8.92	0.0005	2.000	0.00%	13.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.005	0.000	0.000	0.000	0.000	0.000
BASF 352-500	7.60	0.0001	2.000	15.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.001	0.000	0.000	0.000	0.000	0.000	0.000
BASF UR500	6.59	0.0028	2.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Potential Emissions:</b>											<b>0.041</b>	<b>0.047</b>	<b>0.000</b>	<b>0.010</b>	<b>0.000</b>	<b>0.007</b>	<b>0.029</b>

**Final Finish (FF69A)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Methanol	Weight % Ethyl Benzen	Weight % Hexane	Weight % Glycol Ethers	Weight % Formaldehyd	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Methanol Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Formaldehyd e emissions (ton/yr)	
3M 5990	8.31	0.0001	2.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
3M5936	9.67	0.0002	2.00	1.00%	0.00%	0.00%	0.10%	0.00%	0.00%	0.01%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TCI DT-10	7.02	0.0136	2.00	0.00%	67.00%	19.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.559	0.159	0.000	0.000	0.000	0.000	
TCI Acetone	6.59	0.0023	2.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TCI Isopropanol	6.59	0.0092	2.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Camie-Cambell CC-911	9.37	0.0249	2.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Cyclo C-31	8.17	0.0132	2.00	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.047	0.000	
Cyclo C-192	8.34	0.0052	2.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TCI Mineral Spirits	6.59	0.0115	2.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Markal Various Markers	11.18	0.0002	2.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
RPM Wood Finishes M280-0014	7.29	0.0001	2.00	3.00%	0.00%	0.00%	1.00%	1.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
<b>Potential Emissions:</b>											<b>0.000</b>	<b>0.559</b>	<b>0.159</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.047</b>	<b>0.000</b>

<b>Total HAPs</b>	<b>6.60</b>
-------------------	-------------

**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: Emission Calculations  
Plant 69B HAPs**

**Company Name:** Heartland Recreational Vehicles, LLC  
**Address City IN Zip:** 1001 All Pro Drive, Elkhart, IN 46514  
**Permit No./PII ID:** 039-36439-00621  
**Reviewer:** Thomas Olmstead  
**Date:** February, 2016

**Chassis Preparation (CP69B)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyd	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)
C-35	9.35	0.0025	2.00	0.00%	0.90%	0.00%	0.00%	9.90%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.02	0.00	0.00
<b>Potential Emissions:</b>											<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.02</b>	<b>0.00</b>	<b>0.00</b>

**Assembly Line Operations (ALO69B)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyd	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)
Sikaflex 552	12.10	0.0085	2.000	1.34%	0.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.012	0.01	0.00	0.00	0.00	0.00	0.00
Sikaflex 521	10.60	0.0012	2.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SIL 100GP	7.92	0.1990	2.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manus 25-AM	11.68	0.1265	2.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manus 501-A	10.68	0.2185	2.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manus 75-AM	14.19	0.1265	2.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
StaPut SP90	6.08	0.8165	2.000	0.00%	0.00%	0.00%	0.00%	13.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	5.65	0.00	0.00
Oatey 60E5	16.68	0.0026	2.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IPS Corp. 771, 773	7.26	0.0357	2.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Potential Emissions:</b>											<b>0.012</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>	<b>5.65</b>	<b>0.00</b>	<b>0.00</b>

**Touchup Paint Operation (TP69B)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % xamethylene diisocyanate	Weight % Ethyl Benzen	Weight % Hexane	Weight % Glycol Ethers	Weight % MIBK	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Hexamethylen e-1,6 diisocyanate Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	MIBK Emissions (ton/yr)
SW 10001	5.84	0.0003	2.000	0.00%	16.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.003	0.000	0.000	0.000	0.000	0.000
SW 10010	6.09	0.0003	2.000	0.00%	10.00%	0.00%	0.10%	0.00%	0.00%	0.00%	0.000	0.002	0.000	0.000	0.000	0.000	0.000
BASF AM800	6.90	0.0008	2.000	1.00%	10.00%	0.00%	0.30%	0.00%	0.00%	0.00%	0.000	0.005	0.000	0.000	0.000	0.000	0.000
BASF NRL Bases	8.83	0.0006	2.000	35.00%	0.00%	0.00%	10.00%	0.00%	16.00%	45.00%	0.016	0.000	0.000	0.004	0.000	0.007	0.020
DuPont 7601S	7.18	0.0018	2.000	13.00%	28.00%	0.00%	3.30%	0.00%	0.00%	0.00%	0.015	0.032	0.000	0.004	0.000	0.000	0.000
BASF DCT6NR	7.58	0.0023	2.000	6.00%	0.00%	0.00%	1.00%	0.00%	0.00%	6.00%	0.009	0.000	0.000	0.002	0.000	0.000	0.000
BASF LH200	8.92	0.0005	2.000	0.00%	13.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.005	0.000	0.000	0.000	0.000	0.000
BASF 352-500	7.60	0.0001	2.000	15.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.001	0.000	0.000	0.000	0.000	0.000	0.000
BASF UR500	6.59	0.0028	2.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Potential Emissions:</b>											<b>0.041</b>	<b>0.047</b>	<b>0.000</b>	<b>0.010</b>	<b>0.000</b>	<b>0.007</b>	<b>0.029</b>

**Final Finish (FF69B)**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Methanol	Weight % Ethyl Benzen	Weight % Hexane	Weight % Glycol Ethers	Weight % Formaldehyd	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Methanol Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Formaldehyd de emissions (ton/yr)
3M 5990	8.31	0.0001	2.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3M5936	9.67	0.0002	2.00	1.00%	0.00%	0.00%	0.10%	0.00%	0.00%	0.01%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCI DT-10	7.02	0.0136	2.00	0.00%	67.00%	19.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.559	0.159	0.000	0.000	0.000	0.000
TCI Acetone	6.59	0.0023	2.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCI Isopropanol	6.59	0.0092	2.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Camie-Cambell CC-911	9.37	0.0249	2.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cyclo C-31	8.17	0.0132	2.00	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.047	0.000
Cyclo C-192	8.34	0.0052	2.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCI Mineral Spirits	6.59	0.0115	2.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Markal Various Markers	11.18	0.0002	2.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RPM Wood Finishes M280-0014	7.29	0.0001	2.00	3.00%	0.00%	0.00%	1.00%	1.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Potential Emissions:</b>											<b>0.000</b>	<b>0.559</b>	<b>0.159</b>	<b>0.000</b>	<b>0.000</b>	<b>0.047</b>	<b>0.000</b>

<b>Total HAPs</b>	<b>6.60</b>
-------------------	-------------

**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: Emission Calculations  
VOC, Particulate, and HAP  
From Touch-up Paint Operation  
Plant 6 Line 1**

**Company Name: Heartland Recreational Vehicles, LLC  
Address City IN Zip: 1001 All Pro Drive, Elkhart, IN 46514  
Permit No./Pit ID: 039-36439-00621  
Reviewer: Thomas Olmstead  
Date: February, 2016**

**Touch-up Paint Operation Plant 6 Line 1**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method
SW 10001	5.84	88.00%	23.2%	64.77%	20.6%	7.00%	0.0003	0.250	0.00	4.76	3.78	0.00	0.01	0.00	0.00	54.04	50%	Metal	aerosol
SW 10010	6.09	82.10%	27.1%	55.04%	25.0%	7.00%	0.0003	0.250	0.00	4.47	3.35	0.00	0.01	0.00	0.00	47.88	50%	Wood/Fabric	aerosol
BASF AM800	6.90	79.71%	8.7%	71.01%	10.9%	9.00%	0.0008	0.250	0.00	5.50	4.90	0.00	0.02	0.00	0.00	54.44	50%	Wood/Fabric	aerosol
BASF NRL Bases	8.83	69.08%	0.0%	69.08%	0.0%	21.00%	0.0006	0.250	0.00	6.10	6.10	0.00	0.02	0.00	0.00	29.05	75%	Wood/Fabric	HVLP
DuPont 7601S	7.18	96.10%	0.0%	96.10%	0.0%	2.84%	0.0018	0.250	0.01	6.90	6.90	0.00	0.08	0.01	0.00	242.96	75%	Wood/Fabric	HVLP
BASF DC76NR	7.58	64.64%	6.6%	58.04%	10.0%	23.00%	0.0023	0.250	0.01	4.89	4.40	0.00	0.06	0.01	0.00	19.13	75%	Wood/Fabric	HVLP
BASF LH200	8.92	28.03%	0.0%	28.03%	0.0%	66.00%	0.0005	0.250	0.00	2.50	2.50	0.00	0.01	0.00	0.00	3.79	75%	Wood/Fabric	HVLP
BASF 352-500	7.60	98.68%	0.0%	98.68%	0.0%	1.00%	0.0001	0.250	0.00	7.50	7.50	0.00	0.01	0.00	0.00	749.97	75%	Plastic	HVLP
BASF UR500	6.59	94.10%	1.5%	92.58%	2.0%	4.00%	0.0028	0.250	0.02	6.23	6.10	0.00	0.10	0.02	0.00	152.53	75%	Plastic	HVLP
<b>0.057 Potential Emissions:</b>												<b>0.01</b>	<b>0.31</b>	<b>0.06</b>	<b>0.00</b>				

**Total not-exempt under 326 IAC 6-3-2 0.057**

**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 hrs/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

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Hexamethylene-1,6 diisocyanate	Weight % Ethyl Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % MIBK	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Hexamethylene-1,6 diisocyanate Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	MIBK Emissions (ton/yr)	
SW 10001	5.84	0.0003	0.250	0.00%	16.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
SW 10010	6.09	0.0003	0.250	0.00%	10.00%	0.00%	0.10%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
BASF AM800	6.90	0.0008	0.250	1.00%	10.00%	0.00%	0.30%	0.00%	0.00%	0.00%	0.000	0.001	0.000	0.000	0.000	0.000	0.000	
BASF NRL Bases	8.83	0.0006	0.250	35.00%	0.00%	0.00%	10.00%	0.00%	16.00%	45.00%	0.002	0.000	0.000	0.001	0.000	0.001	0.003	
DuPont 7601S	7.18	0.0018	0.250	13.00%	28.00%	0.00%	3.30%	0.00%	0.00%	0.00%	0.002	0.004	0.000	0.000	0.000	0.000	0.000	
BASF DC76NR	7.58	0.0023	0.250	6.00%	0.00%	0.00%	1.00%	0.00%	0.00%	6.00%	0.001	0.000	0.000	0.000	0.000	0.000	0.001	
BASF LH200	8.92	0.0005	0.250	0.00%	13.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.000	0.001	0.000	0.000	0.000	0.000	0.000	
BASF 352-500	7.60	0.0001	0.250	15.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
BASF UR500	6.59	0.0028	0.250	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
<b>Potential Emissions:</b>												<b>5.18E-03</b>	<b>5.83E-03</b>	<b>4.49E-05</b>	<b>1.29E-03</b>	<b>0.00E+00</b>	<b>8.90E-04</b>	<b>3.65E-03</b>

**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: Emission Calculations  
VOC, Particulate, and HAP  
From Touch-up Paint Operation  
Plant 6 Line 2**

**Company Name:** Heartland Recreational Vehicles, LLC  
**Address City IN Zip:** 1001 All Pro Drive, Elkhart, IN 46514  
**Permit No./Pit ID:** 039-36439-00621  
**Reviewer:** Thomas Olmstead  
**Date:** February, 2016

**Touch-up Paint Operation Plant 6 Line 2**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Gallons Used (gal/day)	Pounds VOC per gallon of coating less water	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	Substrate	Application Method	
SW 10001	5.84	88.00%	23.2%	64.77%	20.6%	7.00%	0.0003	0.250	0.00	4.76	3.78	0.00	0.01	0.00	0.00	54.04	50%	Metal	aerosol	
SW 10010	6.09	82.10%	27.1%	55.04%	25.0%	7.00%	0.0003	0.250	0.00	4.47	3.35	0.00	0.01	0.00	0.00	47.88	50%	Wood/Fabric	aerosol	
BASF AM800	6.90	79.71%	8.7%	71.01%	10.9%	9.00%	0.0008	0.250	0.00	5.50	4.90	0.00	0.02	0.00	0.00	54.44	50%	Wood/Fabric	aerosol	
BASF NRL Bases	8.83	69.08%	0.0%	69.08%	0.0%	21.00%	0.0006	0.250	0.00	6.10	6.10	0.00	0.02	0.00	0.00	29.05	75%	Wood/Fabric	HVLP	
DuPont 7601S	7.18	96.10%	0.0%	96.10%	0.0%	2.84%	0.0018	0.250	0.01	6.90	6.90	0.00	0.08	0.01	0.00	242.96	75%	Wood/Fabric	HVLP	
BASF DC76NR	7.58	64.64%	6.6%	58.04%	10.0%	23.00%	0.0023	0.250	0.01	4.89	4.40	0.00	0.06	0.01	0.00	19.13	75%	Wood/Fabric	HVLP	
BASF LH200	8.92	28.03%	0.0%	28.03%	0.0%	66.00%	0.0005	0.250	0.00	2.50	2.50	0.00	0.01	0.00	0.00	3.79	75%	Wood/Fabric	HVLP	
BASF 352-500	7.60	98.68%	0.0%	98.68%	0.0%	1.00%	0.0001	0.250	0.00	7.50	7.50	0.00	0.01	0.00	0.00	749.97	75%	Plastic	HVLP	
BASF UR500	6.59	94.10%	1.5%	92.58%	2.0%	4.00%	0.0028	0.250	0.02	6.23	6.10	0.00	0.10	0.02	0.00	152.53	75%	Plastic	HVLP	
<b>Potential Emissions:</b>											<b>0.01</b>	<b>0.31</b>	<b>0.06</b>	<b>0.00</b>						

Total not-exempt under 326 IAC 6-3-2 **0.057**

**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 hrs/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

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Hexamethylene-1,6 diisocyanate	Weight % Ethyl Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % MIBK	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Hexamethyl ene-1,6 diisocyanate Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	MIBK Emissions (ton/yr)
SW 10001	5.84	0.0003	0.250	0.00%	16.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW 10010	6.09	0.0003	0.250	0.00%	10.00%	0.00%	0.10%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BASF AM800	6.90	0.0008	0.250	1.00%	10.00%	0.00%	0.30%	0.00%	0.00%	0.00%	0.000	0.001	0.000	0.000	0.000	0.000	0.000
BASF NRL Bases	8.83	0.0006	0.250	35.00%	0.00%	0.00%	10.00%	0.00%	16.00%	45.00%	0.002	0.000	0.000	0.001	0.000	0.001	0.003
DuPont 7601S	7.18	0.0018	0.250	13.00%	28.00%	0.00%	3.30%	0.00%	0.00%	0.00%	0.002	0.004	0.000	0.000	0.000	0.000	0.000
BASF DC76NR	7.58	0.0023	0.250	6.00%	0.00%	0.00%	1.00%	0.00%	0.00%	6.00%	0.001	0.000	0.000	0.000	0.000	0.000	0.001
BASF LH200	8.92	0.0005	0.250	0.00%	13.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.001	0.000	0.000	0.000	0.000	0.000
BASF 352-500	7.60	0.0001	0.250	15.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BASF UR500	6.59	0.0028	0.250	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Potential Emissions:</b>											<b>5.18E-03</b>	<b>5.83E-03</b>	<b>4.49E-05</b>	<b>1.29E-03</b>	<b>0.00E+00</b>	<b>8.90E-04</b>	<b>3.65E-03</b>

**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: Emission Calculations  
VOC, Particulate, and HAP  
From Sidewall Lamination Operation (SL011)  
Plant 11**

**Company Name:** Heartland Recreational Vehicles, LLC  
**Address City IN Zip:** 1001 All Pro Drive, Elkhart, IN 46514  
**Permit No./Plt ID:** 039-36439-00621  
**Reviewer:** Thomas Olmstead  
**Date:** February, 2016

**Small Parts Lamination (SLO11A)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	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	Application Method	
UH 2199	9.40	7.00%	0.0%	7.0%	0.0%	91.06%	1.03500	20.000	0.66	0.66	6.68E-08	1.60E-06	2.92E-07	0.00E+00	0.72	100%	roll coating	
<b>Potential Emissions:</b>											<b>6.68E-08</b>	<b>1.60E-06</b>	<b>2.92E-07</b>	<b>0.00E+00</b>				

**Note:**

VOC PTE is calculated using methodology below.

**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)

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

**\*METHODOLOGY**Formula  $W = 25.4 * Vpmdi * (MW / Tproc) * u * 0.78 * SA * tTF * Kmdi$ 

W = Evaporative Losses (grams/day)

Vpmdi = Vapor Pressure at Temperature Used (Atmospheres) at process temperature

UH 3040 1.023E-05 mm HG 1.346E-08 Atm

MW = Molecular Weight (MDI = 250.26)

250.26

Tproc = Process Temperature (Kelvin)

UH 3040 77 F 298.15 K

u = Air Flow Rate (m/s)

100 ft/min 0.508 m/s

SA = Exposed Surface Area (Square Meters Exposed/Day)

Adhesive	Use	Units Annual (Average Size)	Maximum Area Coated Annual (ft2)	Maximum Area Coated per Day (ft2)	Maximum Exposed Area M2/Day	Units	Emissions grams/day per Formula
UH 3040	Sidewalls	25000	18,750,000	51,369.86	4,772.41	M2	7.27E-04
	Line 1 Coverage	750 sf/unit					

tTF = Tack Free Time in Seconds (Default = 5 Seconds)

5 s

Kmdi = Vapor Pressure Adjustment Factor for Polyisocyanate Concentration

0.18

(80 degrees @ 10% MDI from Table B)

Potential Emis 7.27E-04 grams/day

Potential Emis 3.03E-05 grams/hour = grams/day / 24 hours/day

Potential Emis 6.68E-08 lbs/hour = grams/hour / 453.5 grams/lb

Potential Emis 1.60E-06 lbs/day = lbs/hour x 24 hours /day

**Potential Emi 2.92E-07 tons/year** = lbs/day x 365 days/year x 1/2,000 lb/ton**Note:**

Methodology from: Alliance for the Polyurethanes Industry: Estimating MDI Emissions for Section 313 of EPCRA Reporting

**Appendix A: Emission Calculations  
VOC, Particulate, and HAP  
From Sidewall Lamination Operation (SL011)  
Plant 11**

**Company Name:** Heartland Recreational Vehicles, LLC  
**Address City IN Zip:** 1001 All Pro Drive, Elkhart, IN 46514  
**Permit No./Plt ID:** 039-36439-00621  
**Reviewer:** Thomas Olmstead  
**Date:** February, 2016

**Small Parts Lamination (SLO11B)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	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	Application Method	
UH 2199	9.40	7.00%	0.0%	7.0%	0.0%	91.06%	1.03500	20.000	0.66	0.66	6.68E-08	1.60E-06	2.92E-07	0.00E+00	0.72	100%	roll coating	
<b>Potential Emissions:</b>											<b>6.68E-08</b>	<b>1.60E-06</b>	<b>2.92E-07</b>	<b>0.00E+00</b>				

**Note:**

VOC PTE is calculated using methodology below.

**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)

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

**\*METHODOLOGY**Formula  $W = 25.4 * Vpmdi * (MW / Tproc) * u * 0.78 * SA * tTF * Kmdi$ 

W = Evaporative Losses (grams/day)

Vpmdi = Vapor Pressure at Temperature Used (Atmospheres) at process temperature

UH 3040 1.023E-05 mm HG 1.346E-08 Atm

MW = Molecular Weight (MDI = 250.26)

250.26

Tproc = Process Temperature (Kelvin)

UH 3040 77 F 298.15 K

u = Air Flow Rate (m/s)

100 ft/min 0.508 m/s

SA = Exposed Surface Area (Square Meters Exposed/Day)

Adhesive	Use	Units Annual (Average Size)	Maximum Area Coated Annual (ft2)	Maximum Area Coated per Day (ft2)	Maximum Exposed Area M2/Day	Units	Emissions grams/day per Formula
UH 3040	Sidewalls	25000	18,750,000	51,369.86	4,772.41	M2	7.27E-04
	Line 1 Coverage	750 sf/unit					

tTF = Tack Free Time in Seconds (Default = 5 Seconds)

5 s

Kmdi = Vapor Pressure Adjustment Factor for Polyisocyanate Concentration (80 degrees @ 10% MDI from Table B)

0.18

Potential Emis 7.27E-04 grams/day

Potential Emis 3.03E-05 grams/hour = grams/day / 24 hours/day

Potential Emis 6.68E-08 lbs/hour = grams/hour / 453.5 grams/lb

Potential Emis 1.60E-06 lbs/day = lbs/hour x 24 hours /day

Potential Emi 2.92E-07 tons/year = lbs/day x 365 days/year x 1/2,000 lb/ton

**Note:**

Methodology from: Alliance for the Polyurethanes Industry: Estimating MDI Emissions for Section 313 of EPCRA Reporting

**Appendix A: Emission Calculations  
Particulate Emissions from Manual Sanding  
Plant 12**

**Company Name:** Heartland Recreational Vehicles, LLC  
**Address City IN Zip:** 1001 All Pro Drive, Elkhart, IN 46514  
**Permit No./Pit ID:** 039-36439-00621  
**Reviewer:** Thomas Olmstead  
**Date:** February, 2016

**Plant 12 Miscellaneous Machining Equipment (MPE12)**

<u>Manual Sanding Stations</u>										
200.00	feet/hr	x	0.125	in wide bit	x	0.06	in depth (edge trimming)	=	1.56	in3 loss/hr
1.56	in3 loss/hr	/	1,728	in3/ft3	x	40.00	lb/ft3	=	0.04	lb loss/hr
Total Loss Estimate =		0.04 lb loss/hr								
Total Loss Estimate =		<b>0.16 tons/year</b>								

**Appendix A: Emission Calculations**  
**Particulate Emissions from Miscellaneous Machining**  
**Plant 17 & 18**

Company Name: Heartland Recreational Vehicles, LLC  
Address City IN Zip: 1001 All Pro Drive, Elkhart, IN 46514  
Permit No./Pit ID: 039-36439-00621  
Reviewer: Thomas Olmstead  
Date: February, 2016

**Miscellaneous Maching PM Equipment (MPE17/18)**

**One (1) PVC Chop Saws 17/18CS1**

10.00	cuts/hr	x	4.000	1 diameter pipe	x	3.14	pi	x	0.1250	in thick pipe wall	x	0.125	in thick blade	=	1.96	in3 loss/hr
1.96	in3 loss/hr	/	1,728	in3/ft3	x	87.71	lb/ft3	=	0.10	lb loss/hr	=	<b>0.44</b>	tons/yr			

**One (1) Table Saw 17/18TS1**

10.00	cuts/hr	x	4.00	in long	x	0.125	in thick	x	0.125	in wide	=	0.625	in3 loss/hr
0.63	in3 loss/hr	/	1,728	in3/ft3	x	168.43	lb/ft3	=	0.06	lb loss/hr	=	<b>0.27</b>	tons/yr

**Four (4) Wood Chop Saws 17/18CS2-5**

10.00	cuts/hr	x	1.50	in long	x	1.50	in thick	x	0.125	in wide	=	2.8125	in3 loss/hr
2.81	in3 loss/hr	/	1,728	in3/ft3	x	40.00	lb/ft3	=	0.07	lb loss/hr	=	<b>0.29</b>	tons/yr

**Four (4) Hand Routers 17/18HR1-4**

80.00	feet/hr	x	0.125	in wide bit	x	0.06	in depth (edge trimming)	=	0.63	in3 loss/hr			
0.63	in3 loss/hr	/	1,728	in3/ft3	x	40.00	lb/ft3	=	0.01	lb loss/hr	=	<b>0.06</b>	tons/yr

Total Loss Estimate = 0.24 lb loss/hr

Total Loss Estimate = **1.05** tons/year

**Appendix A: Emission Calculations  
VOC, Particulate, and HAP  
Small Parts Lamination (SPL19)**

Company Name: Heartland Recreational Vehicles, LLC  
Address City IN Zip: 1001 All Pro Drive, Elkhart, IN 46514  
Permit No./PI ID: 039-36439-00621  
Reviewer: Thomas Olmstead  
Date: February, 2016

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	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	Application Method
UH 3040	9.40	7.00%	0.0%	7.0%	0.0%	91.06%	0.34500	20.000	0.66	0.66	8.90E-08	2.14E-06	3.90E-07	0.00E+00	0.72	100%	roll coating
2352*	8.14	0.00%	0.0%	0.0%	0.0%	100.00%	0.00025	20.000	0.00	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	100%	roll coating
<b>Potential Emissions:</b>											<b>8.90E-08</b>	<b>2.14E-06</b>	<b>3.90E-07</b>	<b>0.00E+00</b>			

\*2352 Cleaner is a heat dissolved solid

**Note:**  
VOC PTE is calculated using methodology below.

**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)  
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

**METHODOLOGY**  
Formula  $W = 25.4 * Vpmdi * (MW / Tproc) * u * 0.78 * SA * ITF * Kmndi$

W = Evaporative Losses (grams/day)

VPmdi = Vapor Pressure at Temperature Used (Atmospheres) at process temperature

UH 3040 1.023E-05 mm HG 1.346E-08 Atm  
MW = Molecular Weight (MDI = 250.26) 250.26

Tproc = Process Temperature (Kelvin) UH 3040 77 F 298.15 K

u = Air Flow Rate (m/s) 100 ft/min 0.508 m/s

SA = Exposed Surface Area (Square Meters Exposed/Day)

Adhesive	Use	Units Annual (Average Size)	Maximum Area Coated Annual (ft2)	Maximum Area Coated per Day (ft2)	Maximum Exposed Area M2/Day	Units	Emissions grams/day per Formula
UH 3040	Small Parts Coverage	30000 750 sf/unit	22,500,000	61,643.84	5,726.90	M2	9.69E-04

ITF = Tack Free Time in Seconds (Default = 5 Seconds) 5 s

Kmndi = Vapor Pressure Adjustment Factor for Polyisocyanate Concentration (80 degrees @ 10% MDI from Table B) 0.20

Potential Emis 9.69E-04 grams/day  
 Potential Emis 4.04E-05 grams/hour = grams/day / 24 hours/day  
 Potential Emis 8.90E-08 lbs/hour = grams/hour / 453.5 grams/lb  
 Potential Emis 2.14E-06 lbs/day = lbs/hour x 24 hours /day  
**Potential Emi 3.90E-07 tons/year** = lbs/day x 365 days/year x 1/2,000 lb/ton

**Note:**  
Methodology from: Alliance for the Polyurethanes Industry: Estimating MDI Emissions for Section 313 of EPCRA Reporting

**Appendix A: Emission Calculations**  
**Particulate Emissions from Cabinet and Molding Assembly**

**Company Name:** Heartland Recreational Vehicles, LLC  
**Address City IN Zip:** 1001 All Pro Drive, Elkhart, IN 46514  
**Permit No./Plt ID:** 039-36439-00621  
**Reviewer:** Thomas Olmstead  
**Date:** February, 2016

Plant	Control ID	Airflow (acfm)	Grain Loading (gr/acfm)	Air to Cloth Ratio Air Flow (acfm/ft²)	Total Filter Area (ft²)	Control Efficiency (%)	Potential Emissions Before Control		Potential Emissions After Control	
							(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)
Miscellaneous Woodworking (WW2)	2DC-01	3,500	0.002	3.1	1,140.00	98.00%	3.00	13.14	0.06	0.26
Miscellaneous Woodworking (WW7A and WW7B)	7ADC-01	4,650	0.002	4.1	1,140.00	98.00%	3.99	17.46	0.08	0.35
Miscellaneous Woodworking (WW7A and WW7B)	7BDC-02	4,650	0.002	4.1	1,141.00	98.00%	3.99	17.46	0.08	0.35
Miscellaneous Woodworking (WW12)	12DC-01	4,640	0.002	14.3	324.00	99.00%	7.95	34.84	0.08	0.35
Miscellaneous Woodworking (WW12)	12DC-02	4,640	0.002	14.3	324.00	99.00%	7.95	34.84	0.08	0.35
Miscellaneous Woodworking (WW12)	12DC-03	4,640	0.002	10.1	460.00	99.00%	7.95	34.84	0.08	0.35
Miscellaneous Woodworking (WW12)	12DC-04	4,640	0.002	10.1	460.00	99.00%	7.95	34.84	0.08	0.35
Miscellaneous Woodworking (WW12)	12DC-05	4,640	0.002	10.1	460.00	99.00%	7.95	34.84	0.08	0.35
Miscellaneous Woodworking (WW12)	12DC-06	8,000	0.002	17.4	460.00	99.00%	13.71	60.07	0.14	0.60
Miscellaneous Woodworking (WW21/22)	21DC-01	4,650	0.002	2.0	2,280.00	98.00%	3.99	17.46	0.08	0.35
Miscellaneous Woodworking (WW69A/69B)	69DC-01	8,000	0.002	3.5	2,280.00	98.00%	6.86	30.03	0.14	0.60
							75.30	329.81	0.97	4.25

**Note:**

Assumed PM = PM10 = PM2.5

Woodworking control devices are determined to be integral, therefore the Uncontrolled Emissions (Tons/Yr) on Summary sheet reflects Potential Emissions After Control

**Methodology:**

Uncontrolled Potential Emission(tons/yr) = [No. Units \* Loading (grains/acf) \* Air/Cloth Ratio (acfm/ft²) \* Filter Area (ft²) \* 1 lb/7,000 grains \* 60 min/hr \* 8760 hr/yr \* 1 ton/2,000 lbs \* 1/(1-Control Efficiency)]

Controlled Potential Emission (tons/yr) = [No. Units \* Loading (grains/acf) \* Air/Cloth Ratio (acfm/ft²) \* Filter Area (ft²) \* 1 lb/7,000 grains \* 60 min/hr \* 8760 hr/yr \* 1 ton/2,000 lbs]

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

**Company Name:** Heartland Recreational Vehicles, LLC  
**Address City IN Zip:** 1001 All Pro Drive, Elkhart, IN 46514  
**Permit No./Plt ID:** 039-36439-00621  
**Reviewer:** Thomas Olmstead  
**Date:** February, 2016

Heat Input Capacity MMBtu/hr	HHV mmBtu	Potential Throughput MMCF/yr
	mmscf	
22.8	1020	196.0

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100	5.5	84
					**see below		
Potential Emission in tons/yr	0.19	0.74	0.74	0.06	9.80	0.54	8.23

\*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

**Hazardous Air Pollutants (HAPs)**

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Total - Organics
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	2.1E-04	1.2E-04	7.4E-03	0.18	3.3E-04	<b>0.18</b>

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	Total - Metals
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	4.9E-05	1.1E-04	1.4E-04	3.7E-05	2.1E-04	<b>5.4E-04</b>
						<b>Total HAPs</b>
						<b>0.18</b>
						<b>Worst HAP</b>
						<b>0.18</b>

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.

Plant	Description	Number of Emission Units	Emission Unit ID	Heat Input Capacity Per Unit (MMBtu/hr)	Total Heat Input Capacity (MMBtu/hr)
Plant 2	Forced Air Furnaces	2	2H-01,2H-02	1.300	2.60
	Forced Air Furnace	2	2H-03,2H-04	0.090	0.18
Plant 3	Tube Heaters	7	3H-01 through 3H-07	0.350	2.45
	Tube Heaters	1	3H-08	0.100	0.10
	Forced Air Furnace	1	3H-09	0.080	0.08
Plant 5	Forced Air Furnaces	2	5H-01,5H-02	0.800	1.60
	Forced Air Furnace	2	5H-03,5H-04	0.140	0.28
	Thermo Cyclers	1	5H-05	0.400	0.40
Plant 6	Make-up Air Heater	1	6H-01	0.500	0.50
	Thermo Cyclers	2	6H-02, 6H-03	0.250	0.50
	Thermo Cyclers	1	6H-04	0.150	0.15
Plant 7A-7B	Forced Air Furnaces	2	7AH-01, 7AH-02	0.464	0.93
	Forced Air Furnace	2	7AH-03, 7AH-04	0.090	0.18
Plant 11	Tube Heaters	12	11H-01 through 11H-12	0.10	1.20
Plant 12	Forced Air Furnaces	2	12H-01,12H-02	0.080	0.16
	Forced Air Furnace	2	12H-03,12H-04	0.140	0.28
	Thermo Cyclers	1	12H-05	0.400	0.40
Plant 14	Forced Air Furnaces	2	14H-01,14H-02	0.800	1.60
	Forced Air Furnace	2	14H-03,14H-04	0.140	0.28
	Thermo Cyclers	1	14H-05	0.400	0.40
Plant 19	Forced Air Furnaces	4	19H-01 through 19H-04	0.114	0.46
	Forced Air Furnace	1	19H-05	0.080	0.08
	Thermo Cyclers	3	19H-06, 19H-08	1.200	3.60
Plant 17 & 18	Forced Air Furnaces	4	17/18H-01 thru 17/18H-04	0.150	0.60
Plant 21 & 22	Radiant Tube Heaters	12	21/22H-01 through 21/22H-12	0.080	0.96
	Forced Air Furnace	3	21/22H-13 through 21/22H-15	0.060	0.18
Plant 69A & 69B	Radiant Tube Heaters	16	69H-01 though 69H-16	0.140	2.24
	Forced Air Furnace	2	69H-17,69H-18	0.100	0.20
	Forced Air Furnace	2	69H-19,69H-20	0.120	0.24
<b>TOTALS</b>					<b>22.82</b>

**Appendix A: Emission Calculations  
Emissions Calculations  
Welding and Thermal Cutting**

Company Name: Heartland Recreational Vehicles, LLC  
 Address City IN Zip: 1001 All Pro Drive, Elkhart, IN 46514  
 Permit No./Pit ID: 039-36439-00621  
 Reviewer: Thomas Olmstead  
 Date: February, 2016

Plant (WC)	PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	Pounds Electrode per Hour
	<b>WELDING</b>			
WC2	Metal Inert Gas (MIG)(E70S)	1.00	1.00	1.00
WC 7A / 7B	Metal Inert Gas (MIG)(E70S)	1.00	1.00	1.00
WC11	Metal Inert Gas (MIG)(E70S)	8.00	5.40	43.20
WC12	Metal Inert Gas (MIG)(Aluminum)	9.00	5.40	48.60
WC19	Metal Inert Gas (MIG)(Aluminum)	18.00	1.00	18.00
WC17/18	Metal Inert Gas (MIG)(E70S)	1.00	1.00	1.00
WC 21/22	Metal Inert Gas (MIG)(E70S)	2.00	1.00	2.00
WC 69A/69B	Metal Inert Gas (MIG)(E70S)	4.00	1.00	4.00
<b>Total</b>				<b>118.80</b>

Plant (WC)	PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	Pounds Electrode per Hour
	<b>WELDING</b>			
WC2	Stick (E5154 electrode)	1.00	0.50	0.50
WC 7A / 7B	Stick (E5154 Electrode)	1.00	0.50	0.50
<b>Total</b>				<b>1.00</b>

Plant (WC)	PROCESS	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)
	<b>FLAME CUTTING</b>			
WC2	Oxyacetylene/Electric Arc	1.00	0.75	12.00
WC 7A / 7B	Oxyacetylene / Electric Arc	1.00	0.75	12.00
WC 21/22	Oxyacetylene / Electric Arc	1.00	0.75	12.00
WC 69A/69B	Oxyacetylene/Electric Arc	1.00	0.75	12.00
<b>Total</b>		<b>4.00</b>	<b>3.00</b>	<b>48.00</b>

PROCESS	Pounds Electrode per Hour	EMISSION FACTORS* (lb pollutant/lb electrode)					EMISSIONS (lbs/hr)					HAPS (lbs/hr)		
		PM = PM10	Mn	Ni	Co	Cr	PM = PM10	Mn	Ni	Co	Cr			
WELDING														
Metal Inert Gas (MIG)(E70S)	118.80	0.00520	0.00318	0.00001	0.00001	0.00001	0.62	0.38	1.19E-03	1.19E-03	1.19E-03	0.38135		
Stick (E5154 electrode)	1.00	0.02410	0.00034	-	-	0.00010	0.02	3.40E-04	-	-	-	1.00E-04		
FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)					EMISSIONS (lbs/hr)					HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Co	Cr	PM = PM10	Mn	Ni	Co	Cr	
Oxyacetylene/Electric Arc	4	0.75	12.00	0.1622	0.0005	0.0001	-	0.0003	0.35035	0.00108	0.00022	-	0.00065	0.00194
<b>EMISSION TOTALS</b>														
Potential Emissions lbs/hr									0.99	0.38	0.0014	0.00119	0.0019	0.38
Potential Emissions lbs/day									23.81	9.10	0.034	0.029	0.05	9.21
Potential Emissions tons/year									4.35	1.66E+00	6.15E-03	5.20E-03	8.48E-03	1.68

**Methodology:**

\*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.  
 \*\*Emission Factor for plasma cutting from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted). Therefore, the emission factor for plasma cutting is for 8 mm thick rather than 1 inch, and the maximum metal thickness is noted  
 Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)  
 Welding emissions, lb/hr: (Pounds Electrode per Hour)(emission factor, lb. pollutant/lb. of electrode used)  
 Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day  
 Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.



# Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • [www.idem.IN.gov](http://www.idem.IN.gov)

**Michael R. Pence**  
Governor

**Carol S. Comer**  
Commissioner

February 25, 2016

Mr. Larry York  
Heartland Recreational Vehicles, LLC  
1001 All Pro Drive  
Elkhart, IN 46514

Re: Public Notice  
Heartland Recreational Vehicles, LLC  
Permit Level: Federally Enforceable State  
Operating Permit (FESOP)  
Significant Permit Revision  
Permit Number: 039-36439-00621

Dear Mr. York:

Enclosed is a copy of your draft Federally Enforceable State Operating Permit (FESOP) Significant Permit Revision, Technical Support Document, emission calculations, and the Public Notice which will be printed in your local newspaper.

The Office of Air Quality (OAQ) has prepared two versions of the Public Notice Document. The abbreviated version will be published in the newspaper, and the more detailed version will be made available on the IDEM's website and provided to interested parties. Both versions are included for your reference. The OAQ has requested that the Elkhart Truth in Elkhart, Indiana publish the abbreviated version of the public notice no later than February 27, 2016. You will not be responsible for collecting any comments, nor are you responsible for having the notice published in the newspaper.

OAQ has submitted the draft permit package to the Elkhart Public Library, 300 South Second Street in Elkhart, Indiana. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to Thomas Olmstead, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension 3-9664 or dial (317) 233-9664.

Sincerely,

*Vivian Haun*

Vivian Haun  
Permits Branch  
Office of Air Quality

Enclosures  
PN Applicant Cover letter 2/17/2016



# Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • [www.idem.IN.gov](http://www.idem.IN.gov)

**Michael R. Pence**  
Governor

**Carol S. Comer**  
Commissioner

## **ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING**

February 25, 2016

Elkhart Truth  
421 South Second Street  
PO Box 487  
Elkhart, IN 46515

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for Heartland Recreational Vehicles, LLC, Elkhart County, Indiana.

Since our agency must comply with requirements which call for a Notice of Public Comment, we request that you print this notice one time, no later than February 27, 2016.

Please send a notarized form, clippings showing the date of publication, and the billing to the Indiana Department of Environmental Management, Accounting, Room N1345, 100 North Senate Avenue, Indianapolis, Indiana, 46204.

**To ensure proper payment, please reference account # 100174737.**

We are required by the Auditor's Office to request that you place the Federal ID Number on all claims. If you have any conflicts, questions, or problems with the publishing of this notice or if you do not receive complete public notice information for this notice, please call Vivian Haun at 800-451-6027 and ask for extension 3-6878 or dial 317-233-6878.

Sincerely,

*Vivian Haun*

Vivian Haun  
Permit Branch  
Office of Air Quality

Permit Level: Federally Enforceable State Operating Permit (FESOP)  
Significant Permit Revision

Permit Number: 039-36439-00621

Enclosure

PN Newspaper.dot 2/17/2016



# Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • [www.idem.IN.gov](http://www.idem.IN.gov)

**Michael R. Pence**  
Governor

**Carol S. Comer**  
Commissioner

February 25, 2016

To: Elkhart Public Library

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

Subject: **Important Information to Display Regarding a Public Notice for an Air Permit**

**Applicant Name: Heartland Recreational Vehicles, LLC**  
**Permit Number: 039-36439-00621**

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Request to publish the Notice of 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. **Please make this information readily available until you receive a copy of the final package.**

If you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185. Questions pertaining to the permit itself should be directed to the contact listed on the notice.

Enclosures  
PN Library.dot 2/17/2016



# Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • [www.idem.IN.gov](http://www.idem.IN.gov)

**Michael R. Pence**  
Governor

**Carol S. Comer**  
Commissioner

## Notice of Public Comment

**February 25, 2016**  
**Heartland Recreational Vehicles, LLC**  
**039-36439-00621**

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has been placed in the Legal Advertising section of your local newspaper. The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana's Air Permitting Program.

**Please Note:** *If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at [PPEAR@IDEM.IN.GOV](mailto:PPEAR@IDEM.IN.GOV). If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.*

Enclosure  
PN AAA Cover.dot 2/17/2016

# Mail Code 61-53

IDEM Staff	VHAUN 2/25/2016		Heartland Recreational Vehicle, LLC 039-36439-00621 DRAFT		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:  <b>CERTIFICATE OF MAILING ONLY</b>		

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		Larry York Heartland Recreational Vehicle, LLC 1001 All Pro Drive Elkhart IN 46514 (Source CAATS)										
2		Lou Feil VP Of Finance Heartland Recreational Vehicle, LLC 1001 All Pro Drive Elkhart IN 46514 (RO CAATS)										
3		Elkhart City Council and Mayors Office 229 South Second Street Elkhart IN 46516 (Local Official)										
4		Elkhart Public Library 300 S 2nd St Elkhart IN 46516-3184 (Library)										
5		Elkhart County Health Department 608 Oakland Avenue Elkhart IN 46516 (Health Department)										
6		Middlebury Town Council and Town Manager P.O. Box 812, 418 North Main Street Middlebury IN 46540 (Local Official)										
7		Elkhart County Board of Commissioners 117 North Second St. Goshen IN 46526 (Local Official)										
8		Mr. Doug Elliott D & B Environmental Services, Inc. 401 Lincoln Way West Osceola IN 46561 (Consultant)										
9		Maurer Investments LLC 3940 Lexington Park Dr Elkhart IN 46514 (Affected Party)										
10												
11												
12												
13												
14												
15												

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See <b>Domestic Mail Manual R900, S913, and S921</b> for limitations of coverage on inured and COD mail. See <b>International Mail Manual</b> for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
9			