



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: March 1, 2005

RE: Heartland Recreational Vehicles, LLC Plant 2 / 039-20803-00621

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Registration

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FN-REGIS.dot 1/10/05



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

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Indianapolis, Indiana 46204
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March 1, 2005

Mr. Jack Culbertson
Heartland Recreational Vehicles, LLC Plant 2
1001 All Pro Drive
Elkhart, IN 46514

Re: Registered Construction and Operation Status,
039-20803-00621

Dear Mr. Culbertson:

The application from Heartland Recreational Vehicles, LLC Plant 2, received on February 15, 2005, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following stationary non-motorized travel trailer manufacturing plant, to be located at 1001 All Pro Drive, Elkhart, Indiana 46514 is classified as registered:

- (a) one (1) travel trailer assembly and finishing operation, designated as EU-01, constructed in 2005, which assembles non-motorized travel trailers from primarily pre-manufactured and pre-coated components at a maximum throughput of 1.25 trailers per hour, venting to the indoors;
- (b) one (1) woodworking operation, designated as Millshop MS-01, constructed in 2005, consisting of cutting, sawing, drilling, and/or routing of wood, with a maximum throughput capacity of 0.6 tons of wood per hour, and with particulate emissions from the emission units controlled by two (1) baghouse dust collectors, identified as DC-1900A-3 and DC-1200A-3, each with an internal return air system, a control efficiency of 99.9%, and a maximum design grain loading of less than or equal to 0.03 grain per actual cubic foot of outlet air, when operated at gas flow rates of one thousand nine hundred (1,900) and one thousand two hundred (1,200) actual cubic feet per minute (acfm), respectively. The woodworking operation consists of the following emission units:
 - (1) One (1) table saw for cutting of wood;
 - (2) Three (3) chop saws for cutting of wood;
 - (3) One (1) band saw for cutting of wood;
 - (4) One (1) drill press for drilling and/or routing of wood;
 - (5) Miscellaneous hand operated saws, routers, and drills
- (c) two (2) natural gas-fired office furnaces, designated as H-03 and H-04, each rated at 0.09 MMBtu/hr;
- (d) two (2) natural gas-fired Thermo Cycle heaters, designated as H-01 and H-02, each rated at 0.464 MMBtu/hr;

The following conditions shall be applicable:

- (a) 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:
 - (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) in a six (6) hour period 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.
- (b) 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.
- (c) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the woodworking facility shall not exceed 2.91 pounds per hour when operating at a process weight rate equal to 0.6 tons of wood per hour (1,200 pounds of wood per hour).
- (d) Any change or modification that would increase the potential to emit of Volatile Organic Compounds (VOCs) or a combination of hazardous air pollutants (HAPs) to 25 tons per year or greater, or that of individual HAP to 10 tons per year or greater, shall require prior approval of IDEM, Office of Air Quality

This registration is the first registration issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

**Compliance Data Section
Office of Air Quality
100 North Senate Avenue
Indianapolis, IN 46204**

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source. If you have any questions on this matter, please contact Nathan C. Bell, OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46206, at 317-234-3350 or at 1-800-451-6027 (ext 43350).

Sincerely,

Original signed by

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

NCB

cc: File - Elkhart County
Elkhart County Health Department
IDEM Northern Regional Office
Air Compliance - Paul Karkiewicz
Permit Tracking
Compliance Data Section
Administrative and Development

Registration Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

Company Name:	Heartland Recreational Vehicles, LLC Plant 2
Address:	1001 All Pro Drive, Elkhart, IN 46514
City:	Elkhart
Authorized individual:	Jack Culbertson
Phone #:	(574) 262-5992
Registration #:	039-20803-00621

I hereby certify that Heartland Recreational Vehicles, LLC Plant 2 is still in operation and is in compliance with the requirements of Registration 039-20803-00621.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name: Heartland Recreational Vehicles, LLC Plant 2
Source Location: 1001 All Pro Drive, Elkhart, IN 46514
County: Elkhart
SIC Code: 3792 (Manufacturing of Travel Trailers and Campers)
Application No.: 039-20803-00621
Reviewer: Nathan C. Bell

On February 17, 2005, the Office of Air Quality (OAQ) received an application from Heartland Recreational Vehicles, LLC Plant 2 relating to the operation of a stationary non-motorized travel trailer manufacturing plant.

New Emission Units and Pollution Control Equipment

The application includes information relating to the construction and operation of the following:

- (a) one (1) travel trailer assembly and finishing operation, designated as EU-01, constructed in 2005, which assembles non-motorized travel trailers from primarily pre-manufactured and pre-coated components at a maximum throughput of 1.25 trailers per hour, venting to the indoors;
- (b) one (1) woodworking operation, designated as Millshop MS-01, constructed in 2005, consisting of cutting, sawing, drilling, and/or routing of wood, with a maximum throughput capacity of 0.6 tons of wood per hour, and with particulate emissions from the emission units controlled by two (1) baghouse dust collectors, identified as DC-1900A-3 and DC-1200A-3, each with an internal return air system, a control efficiency of 99.9%, and a maximum design grain loading of less than or equal to 0.03 grain per actual cubic foot of outlet air, when operated at gas flow rates of one thousand nine hundred (1,900) and one thousand two hundred (1,200) actual cubic feet per minute (acfm), respectively. The woodworking operation consists of the following emission units:
 - (1) One (1) table saw for cutting of wood;
 - (2) Three (3) chop saws for cutting of wood;
 - (3) One (1) band saw for cutting of wood;
 - (4) One (1) drill press for drilling and/or routing of wood;
 - (5) Miscellaneous hand operated saws, routers, and drills
- (c) two (2) natural gas-fired office furnaces, designated as H-03 and H-04, each rated at 0.09 MMBtu/hr;
- (d) two (2) natural gas-fired Thermo Cycle heaters, designated as H-01 and H-02, each rated at 0.464 MMBtu/hr;

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Existing Approvals

No previous air approvals have been issued to this source.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
H-01	Natural Gas-Fired Heater H-01	23.5 - 25	0.25 - 0.5	77 est.	100 est.
H-02	Natural Gas-Fired Heater H-02	23.5 - 25	0.25 - 0.5	77 est.	100 est.
H-03	Natural Gas-Fired Furnace H-03	23.5 - 25	0.25 - 0.5	77 est.	100 est.
H-04	Natural Gas-Fired Furnace H-04	23.5 - 25	0.25 - 0.5	77 est.	100 est.

Recommendation

The staff recommends to the Commissioner that the application be approved as a registration. This recommendation is based on the following facts and conditions:

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 February 17, 2005. Additional information was submitted by the source by email on February, 21, 2005, February, 22, 2005, and February 23, 2005.

Emission Calculations

- (a) See Appendix A of this TSD for detailed emissions calculations (Appendix A, pages 1 through 3).
- (b) Based on information provided by the source, the source applies sealers, caulks, adhesives, and touch-up paint surface coatings to wood, plastic, and metal surfaces. These coating are applied using hand-held aerosol cans or hand-held caulk guns. The table below summarizes the types of surfaces being coated and the surface coatings applied to these surfaces:

Type of Surface Coated	Surface Coating Material
Metal	Silkaflex 552 Adhesive Rust-Oleum 2402 Gloss Black (minimal amounts)
Plastic*	502 Silicone Sealant Caulk 8011 Latex Sealer Adhesive P1015 Low VOC Sealer Rust-Oleum 2402 Gloss Black (primarily)
Wood	Rust-Oleum 2402 Gloss Black (primarily)

*Plastic consists primarily of RV exterior, which is made of fiber reinforced plastic

- (c) The source will generate PM and PM10 emissions due to the cutting, drilling, and/or routing of wood. The following calculations determine the unrestricted potential emissions and the estimated emissions after controls.

(1) Potential Emissions Before Controls:

The particulate (PM/PM10) emissions from all woodworking operations combined will be controlled by two baghouses, each with a control efficiency of 99.9%. The source estimated the amount of potential particulate matter (PM/PM10) collected by the baghouses at 1.2 pounds per hour. Based on the collection efficiency of 99.9%, 24 hours of operations per day, and 365 days of operation per year, the PTE of particulate matter (PM/PM10) from all woodworking operations combined total 5.26 tons per year before controls:

$$(1.2 \text{ lb/hr} / 0.999) * 24 \text{ hrs/day} * 365 \text{ days/yr} * (1 \text{ ton} / 2000 \text{ lb}) = 5.26 \text{ tons/yr PM/PM10}$$

(2) Potential Emissions After Controls:

Using the two baghouses control efficiency of 99.9%, the PTE of particulate matter (PM/PM10) after controls is calculated to be 0.005 tons/yr.

$$5.26 \text{ tons/yr} * (1 - 0.999) = 0.005 \text{ tons/yr PM/PM10}$$

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit (PTE) is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency.”

The following table reflects the existing source potential to emit. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit:

Pollutant	Potential To Emit (tons/year)
PM	5.32
PM-10	5.35
SO ₂	negligible
NO _x	0.49
VOC	14.2
CO	0.41

HAP's	Potential To Emit (tons/year)
Ethylbenzene	0.21
Xylenes	0.42
Benzene	negligible
Dichlorobenzene	negligible
Formaldehyde	negligible
n-Hexane	negligible
Toluene	5.61
Lead	negligible
Cadmium	negligible
Chromium	negligible
Manganese	negligible
Nickel	negligible
TOTAL HAPs	6.25

- (a) The PTE (as defined in 326 IAC 2-1.1-1(16)) of regulated criteria pollutants are less than twenty-five (25) tons per year, but the PTE of particulate matter (PM or PM-10) is greater than five (5) tons per year and/or the PTE of all other regulated criteria pollutants are greater than ten (10) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.5. A registration will be issued.
- (b) The PTE (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM10	Attainment or Unclassifiable
SO ₂	Attainment
NO ₂	Attainment or Unclassifiable
1-Hour Ozone	Maintenance Attainment
8-Hour Ozone	Basic Nonattainment
CO	Attainment or Unclassifiable
Lead	Attainment or Unclassifiable

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standard. Elkhart County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for nonattainment new source review.
- (b) Elkhart County has been classified as attainment or unclassifiable for all the other regulated criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (c) Fugitive Emissions
 Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

New Source PSD and Emission Offset Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	0.07
PM-10	0.09
SO ₂	negligible
NO _x	0.49
VOC	14.2
CO	0.41
Worst Single HAP	5.61
Combination HAPs	6.25

- (a) This new source is not a major PSD stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.
- (b) This new source is not a Emission Offset major stationary source because no regulated nonattainment pollutant is emitted at a rate of 100 tons per year or greater. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the PTE of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This status is based on the potential to emit calculations of the source (see Appendix A).

Federal Rule Applicability

- (a) This source is not subject to the requirements of the New Source Performance Standards (NSPS), 40 CFR 60, Subpart MM, Automobile and Light Duty Truck Surface Coating Operations (40 CFR Parts 60.390 - 60.398) (326 IAC 12), because this source is not a major source for HAPs as defined in 40 CFR 63.2 and is not involved in the surface coating of automobiles or light duty trucks. This source assembles non-motorized travel trailers for attachment to passenger cars or other vehicles using pre-manufactured components.
- (b) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.
- (c) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63, Subpart JJ, Wood Furniture Manufacturing (40 CFR Part 63.800 - 63.808) (326 IAC 20-14-1), because this source is not a major source of HAPs as defined in 40 CFR 63.2 and does not manufacture wood furniture or wood furniture components. All wood furniture and wood furniture components installed in the travel trailers are shipped to the source pre-manufactured and pre-coated.
- (d) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63, Subpart IIII, Surface Coating of Automobiles and Light-Duty Trucks (40 CFR Part 63.3080 - 63.3176), because this source is not a major source of HAPs as defined in 40 CFR 63.2 and does not surface coat automobiles or light duty trucks as defined by 63.3176. This source assembles non-motorized travel trailers for attachment to passenger cars or other vehicles using pre-manufactured components.
- (e) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63, Subpart MMMM, Surface Coating of Miscellaneous Metal Parts and Products (40 CFR Part 63.3880 - 63.3981), because this source is not a major source of HAPs as defined in 40 CFR 63.2.
- (f) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR 63, Subpart PPPP, Surface Coating of Plastic Parts and Products (40 CFR Part 63.4480 - 63.4581), because the source is not a major source of HAPs as defined in 40 CFR 63.2.
- (g) This source is not subject to the requirements of 40 CFR 63, Subpart DDDDD, (63.7480 through 63.7575), NESHAPs for Industrial, Commercial, and Institutional Boilers and Process

Heaters, because the source is not a major source of HAPs.

- (h) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) included in the permit for this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

This source was constructed after the applicability date of August 7, 1977, however, it is not one of the 28 listed source categories defined in 326 IAC 2-2-1(y)(1), no major modifications were done to this source, and the uncontrolled potential to emit of all attainment regulated pollutants is less than 250 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

326 IAC 2-3 (Emission Offset)

The requirements of 326 IAC 2-3 (Emission Offset) apply to major sources or major modifications constructed in an area designated as non-attainment. The uncontrolled potential to emit of VOC and NOx are each less than 100 tons per year. When this area is designated by the state rules, the requirements of 326 IAC 2-3 (Emission Offset) will not be applicable.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The requirements of 326 IAC 2-4.1 are not applicable to this source, since the potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year.

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), because it is located in Elkhart County, it is not required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, and it does not emit lead into the ambient air at levels equal to or greater than five (5) tons per year.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) in a six (6) hour period 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.

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.

State Rule Applicability - Individual Facilities

326 IAC 8-1-6 (VOC rules: General Reduction Requirements for New Facilities)

The requirements of 326 IAC 8-1-6 are not applicable, since each of the emission units at this source

does not have the potential to emit greater than twenty-five (25) tons of VOCs per year.

State Rule Applicability - Surface Coating Operations

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

Pursuant to 326 IAC 6-3-1(b)(14), each of the surface coating activities is exempt from the requirements of 326 IAC 6-3, because the potential particulate emissions are less than five hundred fifty-one thousandths (0.551) pound per hour.

326 IAC 8-2-2 (Volatile Organic Compounds, Automobile and Light Duty Truck Coating Operations)

The requirements of 326 IAC 8-2-2 are not applicable to this source, since this source does not perform surface coating of automobiles or light duty trucks as defined in 326 IAC 8-2-2(a). This source assembles non-motorized travel trailers for attachment to passenger cars or other vehicles using pre-manufactured components.

326 IAC 8-2-9 (Volatile Organic Compounds, Miscellaneous Metal Coating Operations)

Pursuant to 326 IAC 8-2-1 (Applicability), this rule applies to facilities constructed after July 1, 1990 located in any county, and with actual VOC emissions of greater than fifteen (15) pounds per day before add-on controls. The requirements of 326 IAC 8-2-9 are not applicable to this source, since the actual VOC emissions associated with surface coating of metal is less than fifteen (15) pounds per day before add-on controls.

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.

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).

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.

326 IAC 8-11-3 (Volatile Organic Compounds, Wood Furniture Coatings)

The requirements of 326 IAC 8-11-3 are not applicable to this source, since this source does not perform manufacturing of wood furniture.

State Rule Applicability – Natural Gas Combustion Sources

326 IAC 4-2-2 (Incinerators)

The natural gas-fired space heaters and furnaces are not incinerators, as defined by 326 IAC 1-2-34, since they do not burn waste substances. Therefore, these ovens are not subject to 326 IAC 4-2-2.

326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)

The natural gas-fired heaters and furnaces are not subject to 326 IAC 6-2 as they are not sources of

indirect heating.

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

Pursuant to 326 IAC 6-3-1(b)(14), each of the natural gas-fired heaters and furnaces are exempt from the requirements of 326 IAC 6-3, because they each have a potential particulate emissions less than five hundred fifty-one thousandths (0.551) pound per hour.

326 IAC 7-1 (Sulfur dioxide emission limitations: applicability)

The natural gas-fired heaters and furnaces are each not subject to the requirements of 326 IAC 7-1, because the potential and the actual emissions are less than twenty-five (25) tons per year and ten (10) pounds per hour respectively.

State Rule Applicability - Woodworking Operations

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

The requirements of 326 IAC 6-3 are applicable to woodworking facility at this source. Pursuant to 326 IAC 6-3-2(e)(2), the particulate emissions from the woodworking facility shall not exceed 2.91 pounds per hour when operating at a process weight rate equal to 0.6 tons of wood per hour (1,200 pounds of wood per hour).

In order to comply with the allowable rate of emission, the two (2) baghouse dust collectors shall be in operation at all times when the woodworking facility is in operation. The allowable rate of emission was calculated as follows:

Interpolation of the data in the table in 326 IAC 6-3-2(e)(2) for the process weight rates up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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

Conclusion

The operation of this source shall be subject to the conditions of the attached registration, No 039-20803-00621.

Appendix A: Emissions Calculations
VOC, Particulate, HAPs
Emission Summary

Company Name: Heartland Recreational Vehicles, LLC Plant 2
Address City IN Zip: 1001 All Pro Drive, Elkhart, IN 46514
Permit Number: 039-20803
Plt ID: 039-00621
Reviewer: Nathan C. Bell
Date: February 23, 2005

Category	Uncontrolled Potential Emissions (tons/year)				
	Emissions Generating Activity				
	Pollutant	Surface Coatings	Natural Gas Combustion	Woodworking	TOTAL
Criteria Pollutants	PM	0.05	0.01	5.26	5.32
	PM10	0.05	0.04	5.26	5.35
	SO2		2.9E-03		2.9E-03
	NOx		0.49		0.49
	VOC	14.2	0.03		14.2
	CO		0.41		0.41
Hazardous Air Pollutants	Ethylbenzene	0.21			0.21
	Xylenes	0.42			0.42
	Benzene		1.0E-05		1.0E-05
	Dichlorobenzene		5.8E-06		5.8E-06
	Formaldehyde		3.6E-04		3.6E-04
	n-Hexane		8.7E-03		8.7E-03
	Toluene	5.61	1.7E-05		5.61
	Lead		2.4E-06		2.4E-06
	Cadmium		5.3E-06		5.3E-06
	Chromium		6.8E-06		6.8E-06
	Manganese		1.8E-06		1.8E-06
	Nickel		1.0E-05		1.0E-05
	Totals	6.24	0.01	0	6.25
			Worse Case HAP	5.61	

Total emissions based on rated capacity at 8,760 hours/year.

Category	Controlled Potential Emissions (tons/year)				
	Emissions Generating Activity				
	Pollutant	Surface Coatings	Natural Gas Combustion	Woodworking	TOTAL
Criteria Pollutants	PM	0.05	0.01	0.005	0.07
	PM10	0.05	0.04	0.005	0.09
	SO2		2.9E-03		2.9E-03
	NOx		0.49		0.49
	VOC	14.2	0.03		14.2
	CO		0.41		0.41
Hazardous Air Pollutants	Ethylbenzene	0.21			0.21
	Xylenes	0.42			0.42
	Benzene		1.0E-05		1.0E-05
	Dichlorobenzene		5.8E-06		5.8E-06
	Formaldehyde		3.6E-04		3.6E-04
	n-Hexane		8.7E-03		8.7E-03
	Toluene	5.61	1.7E-05		5.61
	Lead		2.4E-06		2.4E-06
	Cadmium		5.3E-06		5.3E-06
	Chromium		6.8E-06		6.8E-06
	Manganese		1.8E-06		1.8E-06
	Nickel		1.0E-05		1.0E-05
	Totals	6.24	0.01	0	6.25
			Worse Case HAP	5.61	

Total emissions based on rated capacity at 8,760 hours/year.

**Appendix A: Emissions Calculations
VOCs, Particulate, HAPs
Surface Coatings**

**Company Name: Heartland Recreational Vehicles, LLC Plant 2
Address City IN Zip: 1001 All Pro Drive, Elkhart, IN 46514
Permit Number: 039-20803
Plt ID: 039-00621
Reviewer: Nathan C. Bell
Date: February 23, 2005**

Volatile Organic Comounds (VOC) and Particulate Matter (PM)

Material	Primary Type of Surface Coated	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water + Non-VOCs	Weight % Solids	Weight % VOCs	Volume % Water + Non-VOCs	Volume % Solids	Maximum Usage (gal/day)*	Maximum Usage (lbs/hour)	per gallon of coating less water and non-VOCs	Pounds VOC per gallon of coating	Potential VOC (lbs/hr)	Potential VOC (lbs/day)	Potential VOC (tons/year)	Particulate Matter Potential (lb/hr)	Particulate Matter Potential (tons/yr)	lb VOC per gal solids	Transfer Efficiency
Silkaflex 552 Adhesive	Metal	10.60	3.32%	0.0%	96.7%	3.3%	0.0%	97.0%	35.4	15.6	0.35	0.35	0.52	12.46	2.27	0	0	0.36	100%
502 Silicone Sealant Caulk	Plastic	8.51	10.0%	0.0%	90.0%	10.0%	0.0%	95.0%	22.2	7.9	0.85	0.85	0.79	18.89	3.45	0	0	0.90	100%
8011 Latex Sealer Adhesive	Plastic	8.50	10.24%	10.0%	89.76%	0.24%	8.0%	92.0%	45.0	15.9	0.02	0.02	0.04	0.16	0	0	0.02	100%	
P1015 Low VOC Sealer	Plastic	9.34	34.0%	0.0%	66.00%	34.0%	0.0%	66.0%	7.5	2.9	3.18	3.18	0.99	23.82	4.35	0	0	4.81	100%
Rust-Oleum 2402 Gloss Black	Plastic & Wood (minimal amounts on Metal)	6.97	95.0%	0.0%	5.00%	95.0%	0.0%	5.0%	3.3	1.0	6.62	6.62	0.91	21.85	3.99	0.012	0.05	132.43	75%

*Maximum Usage provided by source = Potential Paint Usage (lbs/year) / (Density (lbs/gal) * 365 days/year)

**VOC Content provided by source

Totals	3.25	77.92	14.22	0.012	0.05
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METHODOLOGY

Maximum Usage (lbs/hr) = Maximum Usage (gal/day) * Density (lb/gal) / (24 hour/day)

Pounds of VOC per Gallon Coating less Water and non-VOCs = (Density (lb/gal) * Weight % VOCs) / (1-Volume % water and non-VOCs)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % VOCs)

Potential VOC Pounds per Hour = Maximum Usage (lbs/hr) * Weight % VOCs

Potential VOC Pounds per Day = Potential VOC (lbs/hr) * (24 hours/day)

Potential VOC Tons per Year = Potential VOC (lbs/day) * (365 days/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = Density (lbs/gal) * Maximum Usage (gal/day) * (Weight % Solids) * (1-Transfer efficiency) *(365 days/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % VOCs) / (Volume % solids)

Hazardous Air Pollutants (HAPs)

Material	Density (Lb/Gal)	Maximum Usage (gal/day)	Weight % Toluene	Toluene Emissions (ton/yr)	Weight % Ethylbenzene	Ethylbenzene Emissions (ton/yr)	Weight % Xylenes	Xylene Emissions (ton/yr)	Total HAPs (tons/yr)
P1015 Low VOC Sealer	9.35	7.5	34.0%	4.35					4.35
Rust-Oleum 2402 Gloss Black	6.97	3.3	30.0%	1.26	5.0%	0.21	10.0%	0.42	1.89
Totals				5.61		0.21		0.42	

TOTAL HAPs 6.24 ton/yr

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Maximum Usage (gal/day) * Weight % HAP * 365 days/yr * 1 ton/2000 lbs

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

Company Name: Heartland Recreational Vehicles, LLC Plant 2
Address City IN Zip: 1001 All Pro Drive, Elkhart, IN 46514
Permit Number: 039-20803
Plt ID: 039-00621
Reviewer: Nathan C. Bell
Date: February 23, 2005

Emission Unit	Number of Units	Unit Heat Input Capacity MMBtu/hr	Combined Total Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Pollutant					
					PM*	PM10*	SO2	NOx**	VOC	CO
					Emission Factor (lb/MMCF)					
					1.9	7.6	0.6	100	5.5	84.0
					Potential Emission tons/yr					
					PM*	PM10*	SO2	NOx**	VOC	CO
Thermo Cylce heaters H-01 and H-02	2	0.464	0.9	8.13	0.008	0.031	0.002	0.406	0.022	0.341
Office furnaces H-03 and H-04	2	0.09	0.18	1.58	1.5E-03	0.006	0.000	0.079	0.004	0.066
Totals	4		1.1		0.009	0.037	0.003	0.485	0.027	0.408

Emission Unit	Pollutant									
	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
	Emission Factor (lb/MMCF)									
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
	Potential Emission tons/yr									
	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
Thermo Cylce heaters H-01 and H-02	8.5E-06	4.9E-06	3.0E-04	0.007	1.4E-05	2.0E-06	4.5E-06	5.7E-06	1.5E-06	8.5E-06
Office furnaces H-03 and H-04	1.7E-06	9.5E-07	5.9E-05	0.001	2.7E-06	3.9E-07	8.7E-07	1.1E-06	3.0E-07	1.7E-06
Totals	1.0E-05	5.8E-06	3.6E-04	0.009	1.7E-05	2.4E-06	5.3E-06	6.8E-06	1.8E-06	1.0E-05

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

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

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

Methodology

Potential Throughput (MMCF) = Combined Total Heat Input Capacity (MMBtu/hr) * 8,760 hrs/yr * 1 MMCF/1,000 MMBtu

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

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 (SUPPLEMENT D 3/98)

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu, MMCF = 1,000,000 Cubic Feet of Gas

Abbreviations

PM = Particulate Matter

NOx = Nitrous Oxides

DCB = Dichlorobenzene

Cr = Chromium

PM10 = Particulate Matter (<10 um)

VOC - Volatile Organic Compounds

Pb = Lead

Mn = Manganese

SO2 = Sulfur Dioxide

CO = Carbon Monoxide

Cd = Cadmium

Ni = Nickel