



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

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: October 19, 2006

RE: Eash Industries, Inc. / 039-23410-00623

FROM: Nisha Sizemore
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 03/23/06



Mitchell E. Daniels, Jr.
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100 North Senate Avenue
Indianapolis, Indiana 46204-2251
(317) 232-8603
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Todd Eash
Eash Industries, Inc.
120 Rush Court
Elkhart, Indiana 46516

October 20, 2006

Re: Registered Construction and Operation Status,
039-23410-00623

Dear Mr. Eash:

The application from Eash Industries, Inc., received on July 24, 2006, 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 table and RV component manufacturing operation to be located at 120 Rush Court, Elkhart Indiana, 46516 is classified as registered:

- (a) One woodworking operation, identified as WW1, constructed in 2005, with a maximum throughput of ninety-eight (98) pounds of wood per hour, controlled by two dust collectors, identified as BF1 and BF2, exhausting to stack F1.
- (b) One laser cutting operation, identified as LC1, constructed in 2005, with a maximum throughput of 20 feet per minute.
- (c) One adhesive assembly operation, identified as AA1, constructed in 2005, with a maximum throughput of ninety-four (94) pounds of wood per hour, in which coating is applied manually.
- (d) One logo attachment operation, identified as LA1, constructed in 2005, with a maximum throughput of ninety-four (94) pounds of wood per hour, in which coating is applied using airless application.
- (e) One surface coating booth, identified as B1, constructed in 2005, with a maximum throughput of ninety-four (94) pounds of wood per hour, in which coating is applied using HVLP, airless application, and manual application, exhausting to stack B1.
- (f) One epoxy clear surface coating room, identified as EC1, constructed in 2005, with a maximum throughput of ninety-four (94) pounds of wood per hour, in which coating is applied using flow coating and manual application methods.
- (g) One natural gas-fired radiant heater, identified as R1, constructed in 2005, with a maximum heat input of 0.225 pounds per MMBtu, exhausting to stack R1.
- (h) One natural gas-fired air make-up unit, identified as A1, constructed in 2005, with a maximum heat input of 0.500 pounds per MMBtu.
- (i) Two natural gas-fired air make-up units, identified as A2-A3, constructed in 2005, each with a maximum heat input of 0.500 pounds per MMBtu.
- (j) One natural gas-fired office heater, identified as O1, constructed in 2005, with a maximum heat input of 0.100 pounds per MMBtu, exhausting to stack O1.



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 15 minute (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.
- (b) Pursuant to 326 IAC 6-3-2(d), particulate from the surface coating booth B1 shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

If over-spray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:

- (1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
- (2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

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

- (c) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the woodworking facilities shall not exceed 0.54 pounds per hour when operating at a process weight rate of 98 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 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) Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the surface coating applied to wood furniture and cabinets in booths B1 and EC1 shall utilize one of the following application methods:

Airless Spray Application
Air Assisted Airless Spray Application
Electrostatic Spray Application
Electrostatic Bell or Disc Application
Heated Airless Spray Application
Roller Coating
Brush or Wipe Application
Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

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 46204-2251**

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.

Pursuant to Contract No. A305-5-65, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Ms. Tracy DeHaven Parham, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7871 to speak directly to Ms. Tracy DeHaven Parham. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204-2251 or call (800) 451-6027, ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original signed by
Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

Attachments

ERG/TDP

cc: File – Elkhart County
Elkhart County Health Department
Air Compliance Section Inspector – Paul Karkiewicz
Northern Regional Office
Compliance Data Section

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:	Eash Industries, Inc.
Address:	120 Rush Court
City:	Elkhart, Indiana 46516
Authorized individual:	Todd Eash
Phone #:	(574) 295-4450
Registration #:	039-23410-00623

I hereby certify that Eash Industries, Inc. is still in operation and is in compliance with the requirements of Registration 039-23410-00623

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:	Eash Industries, Inc.
Source Location:	120 Rush Court, Elkhart, Indiana 46516
County:	Elkhart
SIC Code:	2431
Operation Permit No.:	R039-23410-00623
Permit Reviewer:	ERG/TDP

The Office of Air Quality (OAQ) has reviewed an application from Eash Industries, Inc. relating to the operation of a stationary table and RV component manufacturing operation.

History

Eash Industries, Inc. was issued a Source Specific Operating Agreement (SSOA 039-21162-00623) on June 7, 2005. Due to operational needs, the source is transitioning from an SSOA to a Registration. There have been no physical changes that would change the potential to emit of the source. The PTE for PM, PM₁₀, SO₂, VOC, NO_x, CO, and hazardous air pollutants for this source have always been at registration levels. On July 24, 2006, the source submitted an application for a Registration.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One woodworking operation, identified as WW1, constructed in 2005, with a maximum throughput of ninety-eight (98) pounds of wood per hour, controlled by two dust collectors, identified as BF1 and BF2, exhausting to stack F1.
- (b) One laser cutting operation, identified as LC1, constructed in 2005, with a maximum throughput of 20 feet per minute.
- (c) One adhesive assembly operation, identified as AA1, constructed in 2005, with a maximum throughput of ninety-four (94) pounds of wood per hour, in which coating is applied manually.
- (d) One logo attachment operation, identified as LA1, constructed in 2005, with a maximum throughput of ninety-four (94) pounds of wood per hour, in which coating is applied using airless application.
- (e) One surface coating booth, identified as B1, constructed in 2005, with a maximum throughput of ninety-four (94) pounds of wood per hour, in which coating is applied using HVLP, airless application, and manual application, exhausting to stack B1.
- (f) One epoxy clear surface coating room, identified as EC1, constructed in 2005, with a maximum throughput of ninety-four (94) pounds of wood per hour, in which coating is applied using flow coating and manual application methods.
- (g) One natural gas-fired radiant heater, identified as R1, constructed in 2005, with a maximum heat input of 0.225 pounds per MMBtu, exhausting to stack R1.

- (h) One natural gas-fired air make-up unit, identified as A1, constructed in 2005, with a maximum heat input of 0.500 pounds per MMBtu.
- (i) Two natural gas-fired air make-up units, identified as A2-A3, constructed in 2005, each with a maximum heat input of 0.500 pounds per MMBtu.
- (j) One natural gas-fired office heater, identified as O1, constructed in 2005, with a maximum heat input of 0.100 pounds per MMBtu, exhausting to stack O1.

Unpermitted Emission Units and Pollution Control Equipment

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

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) SSOA 039-21162-00623 issued on June 7, 2005.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
R1	Space Heater R1	21	0.5	1,500	400
O1	Space Heater O1	21	0.5	1,500	400
F1	Woodworking	14	2.5	8,650	ambient
B1	Surface Coating Booth	19	3.0	15,255	ambient

Recommendation

The staff recommends to the Commissioner that the operation be approved. 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.

A complete application for the purposes of this review was received on July 24, 2006.

Emission Calculations

See Appendix A of this document for detailed emission calculations pages 1 through 8.

Potential to Emit of the Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit 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.”

Pollutant	Potential to Emit (tons/yr)
PM	19.42
PM-10	19.48
SO ₂	0.01
VOC	18.52
CO	0.86
NO _x	1.02

HAPs	Potential to Emit (tons/yr)
Toluene	1.20
Methanol	0.34
Methyl isobutyl ketone	0.34
Hexane	0.11
Total	2.01

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of all criteria pollutants are less than 25 tons per year. The PTE of PM/PM10 and VOC is greater than 10, 5, and 10 tons per year, respectively. Therefore, the source is subject to the provisions of 326 IAC 2-5.5. A registration will be issued.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-1.1-1(16)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.5.
- (c) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 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.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM-10	Attainment
PM 2.5	Attainment
SO ₂	Attainment
NO ₂	Attainment
8-hour Ozone	Nonattainment
CO	Attainment
Lead	Attainment

Note: On August 7, 2006, a temporary emergency rule took effect revoking the one-hour ozone standard in Indiana. The Indiana Air Pollution Control Board has approved a permanent rule revision to incorporate this change into 326 IAC 1-4-1. The permanent revision to 326 IAC 1-4-1 will take effect prior to the expiration of the emergency rule.

- (a) Elkhart County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. See the State Rule Applicability – Entire Source section.
- (b) 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 standards. 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.

- (c) Elkhart County has been classified as attainment or unclassifiable in Indiana for CO, NO₂, lead, SO₂, PM₁₀, and PM_{2.5}. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.
- (d) 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

Existing Source PSD, Part 70, or FESOP 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	19.42
PM-10	19.48
SO ₂	0.01
VOC	18.52
CO	0.86
NO _x	1.02
Single HAP	1.20
Combination HAPs	2.01

- (a) This existing source is not a major 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.
- (b) These emissions were based on the registration application submitted by the company.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit 039-23410-00623, is still not subject to the Part 70 Permit requirements because the potential to emit (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 per year.

This status is based on all the air approvals issued to the source.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) applicable to this source.
- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) Wood Furniture Manufacturing Operations, Subpart JJ, are not included in this permit. The potential to emit of a single HAP is less than ten (10) tons per year, and of a combination of HAPs less than twenty-five (25) tons per year.

- (d) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) Surface Coating of Wood Building Products, Subpart QQQQ, are not included in this permit. The potential to emit of a single HAP is less than ten (10) tons per year, and of a combination of HAPs less than twenty-five (25) tons per year.
- (e) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, Subpart DDDDD, are not included in this permit. The potential to emit of a single HAP is less than ten (10) tons per year, and of a combination of HAPs less than twenty-five (25) tons per year.

State Rule Applicability – Entire Source

326 IAC 2-6 (Emission Reporting)

326 IAC 2-6 (Emission Reporting) applies to sources that meet the following criteria:

- (a) Sources required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program;
- (b) Sources located in Lake or Porter counties that emit VOC or NO_x at levels equal to or greater than 25 tons per year, and/or
- (c) Sources that equal to or emit lead at levels equal to or greater than 5 tons per year.

This source is located in Elkhart County, is not required to operate under a Part 70 permit, and the PTE of Pb is less than 5 tons/year. Therefore, 326 IAC 2-6 does not apply.

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 the 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 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.

State Rule Applicability – Individual Facilities

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

The operation of this stationary table and RV component manufacturing operation will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

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

Particulate from the surface coating booth B1 shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:

- (a) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
- (b) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

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

The adhesive assembly operation (AA1) and the logo attachment operation (LA1) are not subject to 326 IAC 6-3 because the surface coating operations use less than 5 gallons of materials per day. The epoxy clear surface coating room (EC1) is not subject to 326 IAC 6-3 because the facility utilizes flow coating and manual application of coatings.

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the woodworking facilities shall not exceed 0.54 pounds per hour when operating at a process weight rate of 98 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 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

The laser cutting operation (LC1) is not subject to 326 IAC 6-3 because the potential to emit particulate from this facility is less than 0.551 pounds per year.

326 IAC 6-2-1 (Particulate Emission Limitations for Sources of Indirect Heating)

The one (1) radiant heater (R1), one (1) office heater (O1), and four (4) air make up units (A1-A4) are not subject to 326 IAC 6-2-1 (Particulate Emission Limitations for Sources of Indirect Heating) because these facilities are not sources of indirect heating.

326 IAC 8-1-6 (VOC Rules; General Reduction Requirements)

This facility is not subject to 326 IAC 8-1-6 (VOC Rules; General Reduction Requirements) because the potential to emit VOC from the facility is less than twenty-five (25) tons per year.

326 IAC 8-2-12 (Surface Coating Emission Limitations; Wood Furniture and Cabinet Coating)

The surface coating booth (B1) and the epoxy clear surface coating room (EC1) are subject to the requirements of 326 IAC 8-2-12 (Surface Coating Emission Limitations; Wood Furniture and Cabinet Coating). These facilities were constructed after July 1, 1990 and have actual emissions of greater than fifteen (15) lbs volatile organic compounds (VOC) per day.

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the surface coating applied to wood furniture and cabinets shall utilize one of the following application methods:

- Airless Spray Application
- Air Assisted Airless Spray Application
- Electrostatic Spray Application
- Electrostatic Bell or Disc Application
- Heated Airless Spray Application
- Roller Coating
- Brush or Wipe Application
- Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

The adhesive assembly operation (AA1) and the logo attachment operation (LA1) are not subject to 326 IAC 8-2-12 because these facilities have actual emissions of VOC less than fifteen (15) pounds per day.

Conclusion

The operation of this stationary table and RV component manufacturing operation shall be subject to the conditions of the Registration 039-23410-00623.

Appendix A: Natural Gas Combustion

Company Name: Eash Industries, Inc.

Address: 120 Rush Court, Elkhart, IN 46516

Permit No.: 039-23410-00623

Reviewer: ERG/TDP

Date: July 17, 2006

Description	Number of Emission Units	Emission Unit ID	Heat Input Capacity Per Unit (MMBtu/hr)	Total Maximum Potential Throughput (MMCF/yr)
Radiant Heater	1	R1	0.225	1.9
Air Makeup	1	A1	0.500	4.3
Air Makeup	3	A2 - A3	0.500	12.9
Office Heater	1	O1	0.100	0.9
TOTALS	6		2.325	20.0

Emission Factor (lbs/MMCF)						
PM*	PM10*	SO2	NOX**	CO	VOC	HAPs
1.9	7.6	0.6	100	84.0	5.5	1.89

Potential To Emit (tons/yr)							
Emission Unit ID	PM	PM10	SO2	NOX	CO	VOC	HAPs
R1	0.002	0.007	0.00	0.10	0.08	0.01	0.00
A1	0.004	0.016	0.00	0.21	0.18	0.01	0.00
A2 - A3	0.012	0.049	0.00	0.64	0.54	0.04	0.01
O1	0.00	0.00	0.00	0.04	0.04	0.00	0.00
TOTALS	0.019	0.076	0.006	0.998	0.839	0.055	1.9E-02

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

**Emission factor for NOx: Uncontrolled = 100 lb/MMCF

Emission factors are from AP-42, Chapter 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, 1.4-3 and 1.4-4. SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03. (AP-42 Supplement D 7/98)

1 MMBtu = 1,000,000 Btu

1 MMCF = 1,000,000 cubic feet of gas

All Emission factors are based on normal firing.

METHODOLOGY

Max. Potential Throughput (MMCF/yr) = Number of Units x Heat Input Capacity/Unit (MMBtu/hr) x 8,760 (hrs/yr) x 1 MMCF/1,020 MMBtu

PTE (tons/yr) = Max. Potential Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1/2,000 (ton/lbs)

Total HAP emissions are negligible.

Appendix A: Process Particulate Emissions

Woodworking Activities (WW1)

Page 2 of 8 TSD Appendix A

Company Name: Eash Industries, Inc.

Address: 120 Rush Court, Elkhart, IN 46516

Permit No.: 039-23410-00623

Reviewer: ERG/TDP

Date: July 17, 2006

Uncontrolled Potential Emissions (tons/year)					
DUST COLLECTOR					
Process	No. of Units	Grain Loading per Actual Cubic Foot of Outlet Air	Air Flow Rate (acfm)	Control Efficiency	Total (tons/yr)
BF1	1	0.001	2,986	99.00%	11.2
BF2	1	0.001	1,866	99.00%	7.01
Total Emissions Based on Rated Capacity at 8,760 Hours/Year (tons/year) - Equipment Connected to Control Devices					18.2
Total Emissions Based on Rated Capacity (lb/hr) - Equipment Connected to Control Devices					4.16
Total Fugitive Emissions Based on Estimated Dust Collection at 8,760 Hours/Year (tons/year) - Laser Cutter					0.10
Total Fugitive Emissions Based on Estimated Dust Collection (lb/hr) - Laser Cutter					0.02
Total Potential Emissions (tons/year)					18.3
Total Potential Emissions (lb/hr)					4.18
Controlled Potential Emissions (tons/year)					
DUST COLLECTOR					
Process	No. of Units	Grain Loading per Actual Cubic Foot of Outlet Air	Air to Cloth Ratio Air Flow (acfm/ft²)	Control Efficiency	Total (tons/yr)
BF1	1	0.001	2,986	99.00%	0.11
BF2	1	0.001	1,866	99.00%	0.07
Total Emissions Based on Rated Capacity at 8,760 Hours/Year and source controls (tons/year)					0.18
Total Emissions Based on Rated Capacity at 8,760 Hours/Year and source controls (lb/hr)					0.04
Total Fugitive Emissions Based on Estimated Dust Collection at 8,760 Hours/Year (tons/year) - Laser Cutter					0.10
Total Fugitive Emissions Based on Estimated Dust Collection (lb/hr) - Laser Cutter					0.02
Total Potential Emissions with Controls (tons/year)					0.28
Total Potential Emissions with Controls (lb/hr)					0.06
Methodology:					
Potential Emission (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)] + [Estimated Saw Dust from Uncontrolled Equipment (lb/hr) x 8,760 (hr/yr) x 1 ton/2,000 lbs]					
Potential Emission (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] + [Estimated Saw Dust from Uncontrolled Equipment (lb/hr) x 8,760 (hr/yr) x 1 ton/2,000 lbs]					

Appendix A: Process Particulate Emissions
Uncontrolled Emission Estimates from Laser Cutter (LC1)

Company Name: Eash Industries, Inc.
Address: 120 Rush Court, Elkhart, IN 46516
Permit No.: 039-23410-00623
Reviewer: ERG/TDP
Date: July 17, 2006

<u>Laser Cutter</u>									
20.00	Feet/min*	x	0.75	in thick Wood Thickness	x	0.0625	in wide Laser Cut Thickness	0.9375	Loss of Wood (in3/min)
0.9375	in3 loss/hr	/	1,728	in3/ft3	x	42.00	lb/ft3**	=	0.02 lb loss/hr
Total Loss Estimate = 0.02 lb loss/hr									

*Manufacturers maximum rated capacity

**Density based upon red oak

**Appendix A: Emission Calculations
VOC and PM/PM10 Emissions
Adhesive Assembly Operations (AA1)**

Company Name: Eash Industries, Inc.
Address: 120 Rush Court, Elkhart, IN 46516
Permit No.: 039-23410-00623
Reviewer: ERG/TDP
Date: July 17, 2006

Material	Density (lb/gal)	Weight % Volatile (H ₂ O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Material Usage (Lb/Hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	PTE VOC (lbs/hour)	PTE VOC (lbs/day)	PTE VOC (tons/year)	PTE PM/PM10 (tons/year)	**Transfer Efficiency	Pounds VOC/gal Solids	PTE PM/PM10 (lbs/hour)
FAMOWOOD Wood Filler	12.93	13.61%	1.00%	12.61%	1.96%	73.37%	0.001	28.00	0.36	1.66	1.63	0.0457	1.10	0.20	0.00	100%	2.22	0.00
DAP Wood Glue	9.09	54.10%	54.00%	0.10%	58.86%	41.03%	0.005	28.00	1.27	0.02	0.01	0.0013	0.03	0.01	0.00	100%	0.02	0.00
Potential to Emit												0.05	1.13	0.21	0.00			0.00

** Coating applied using manual application

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)

Pounds VOC per Gallon of Solids = [Density (lb/gal) * Weight % Organics] / (Volume % Solids)

PTE VOC (pounds/hour) = Pounds of VOC/Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

PTE VOC (pounds/day) = Pounds of VOC/Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

PTE VOC (tons/year) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

PTE PM/PM10 (tons/year) = Max. (units/hour) * Gal of Mat (gal/unit) * Density (lbs/gal) * (1- Weight % Volatile) * (1-Transfer efficiency) *8760 hours/year *1ton/2000 lbs

PTE PM/PM10 (lbs/hour) = Max. (units/hour) * Gal of Mat (gal/unit) * Density (lbs/gal) * (1- Weight % Volatile) * (1-Transfer efficiency)

HAZARDOUS AIR POLLUTANTS

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Vinyl Acetate	Vinyl Acetate Emissions	Total HAPS
DAP Wood Glue	9.09	0.005	28.00	0.10%	0.01	0.01
State Potential to Emit (tons/year)					0.01	0.01

**Appendix A: Emissions Calculations
VOC and PM/PM10 Emissions
Adhesive Logo Attachment (LA1)**

Company Name: Eash Industries, Inc.
Address: 120 Rush Court, Elkhart, IN 46516
Permit No.: 039-23410-00623
Reviewer: ERG/TDP
Date: July 17, 2006

Material	Density (lb/gal)	Weight % Volatile (H ₂ O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Material Usage (Lb/Hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	PTE VOC (lbs/hour)	PTE VOC (lbs/day)	PTE VOC (tons/year)	PTE PM/PM10 (tons/year)	**Transfer Efficiency	Pounds VOC/gal Solids	PTE PM/PM10 (lbs/hour)
Star Stuk Adhesive	5.85	90.00%	20.00%	70.00%	17.69%	12.33%	0.001	28.00	0.16	4.97	4.09	0.11	2.75	0.50	0.04	50%	33.18	0.01
Potential to Emit												0.11	2.75	0.50	0.04			0.01

** Coating applied using airless application

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)

Pounds VOC per Gallon of Solids = [Density (lb/gal) * Weight % Organics] / (Volume % Solids)

PTE VOC (pounds/hour) = Pounds of VOC/Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

PTE VOC (pounds/day) = Pounds of VOC/Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

PTE VOC (tons/year) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

PTE PM/PM10 (tons/year) = Max. (units/hour) * Gal of Mat (gal/unit) * Density (lbs/gal) * (1- Weight % Volatile) * (1-Transfer efficiency) *8760 hours/year *1ton/2000 lbs

PTE PM/PM10 (lbs/hour) = Max. (units/hour) * Gal of Mat (gal/unit) * Density (lbs/gal) * (1- Weight % Volatile) * (1-Transfer efficiency)

HAZARDOUS AIR POLLUTANTS

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Hexane	Hexane Emissions	Total HAPS
Star Stuk Adhesive	5.85	0.001	28.00	15.00%	0.11	0.11
State Potential to Emit (tons/year)					0.11	0.11

Appendix A: Emissions Calculations
VOC and PM/PM10 Emissions
Surface Coating Booth (B1) - Stain and Sealer

Company Name: Eash Industries, Inc.
Address: 120 Rush Court, Elkhart, IN 46516
Permit No.: 039-23410-00623
Reviewer: ERG/TDP
Date: July 17, 2006

Material	Density (lb/gal)	Weight % Volatile (H ₂ O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Material Usage (Lb/Hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	PTE VOC (lbs/hour)	PTE VOC (lbs/day)	PTE VOC (tons/year)	PTE PM/PM10 (tons/year)	**Transfer Efficiency	Pounds VOC/gal Solids	PTE PM/PM10 (lbs/hour)
Honey Spice Stain (M-3363)	6.60	93.64%	0.00%	93.64%	0.00%	5.66%	0.005	28.00	0.92	6.18	6.18	0.87	20.76	3.79	0.06	75%	109.19	0.01
OR																		
Bernyl Facett LV 40	7.80	68.59%	0.00%	68.59%	0.00%	23.95%	0.010	28.00	2.18	5.35	5.35	1.50	35.95	6.56	1.05	65%	22.34	0.24
AND																		
Cleanup Solvent S-0110	7.01	100.00%	3.77%	96.23%	4.00%	0.00%	0.001	28.00	0.20	7.03	6.75	0.19	4.53	0.83	0.00	100%	NA	0.00
State Potential to Emit (Add Worst Case Coating to Cleanup Solvent Usage)												1.69	40.49	7.39	1.05			0.24

*Mutually Exclusive Coating Operation (i.e., only one coating can be applied at a time)

** Coating applied using high volume-low pressure for stain, air-assisted airless spray application for sealer, and manual cleaning

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)

Pounds VOC per Gallon of Solids = [Density (lb/gal) * Weight % Organics] / (Volume % Solids)

PTE VOC (pounds/hour) = Pounds of VOC/Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

PTE VOC (pounds/day) = Pounds of VOC/Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

PTE VOC (tons/year) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

PTE PM/PM10 (tons/year) = Max. (units/hour) * Gal of Mat (gal/unit) * Density (lbs/gal) * (1- Weight % Volatile) * (1-Transfer efficiency) *8760 hours/year *1ton/2000 lbs

PTE PM/PM10 (lbs/hour) = Max. (units/hour) * Gal of Mat (gal/unit) * Density (lbs/gal) * (1- Weight % Volatile) * (1-Transfer efficiency)

HAZARDOUS AIR POLLUTANTS

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Methanol	Weight % MIBK	Weight % Toluene	Methanol Emissions (ton/yr)	MIBK Emissions (ton/yr)	Toluene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
Cleanup Solvent S-0110	7.01	0.00100	28.000	20.00%	20.00%	70.00%	0.17	0.17	0.60	0.95
State Potential to Emit (Add Worst Case Coating to Cleanup Solvent Usage)							0.17	0.17	0.60	0.95

METHODOLOGY

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

Appendix A: Emissions Calculations
VOC and PM/PM10 Emissions
Surface Coating Room (EC1) - Epoxy Clearcoat

Company Name: Eash Industries, Inc.
Address: 120 Rush Court, Elkhart, IN 46516
Permit No.: 039-23410-00623
Reviewer: ERG/TDP
Date: July 17, 2006

Material	Density (lb/gal)	Weight % Volatile (H ₂ O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non- Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Material Usage (Lb/Hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	PTE VOC (lbs/hour)	PTE VOC (lbs/day)	PTE VOC (tons/year)	PTE PM/PM10 (tons/year)	**Transfer Efficiency	Pounds VOC/gal Solids
Polytex III Epoxy Clear*	9.59	4.50%	0.00%	4.50%	0.00%	95.21%	0.015	28.00	4.03	0.43	0.43	0.18	4.35	0.79	0.00	100%	0.45
BD Hardener*	7.92	60.00%	0.00%	60.00%	0.00%	30.09%	0.015	28.00	3.33	4.75	4.75	2.00	47.92	8.75	0.00	100%	15.80
Cleanup Solvent S-0110	7.01	100.00%	3.77%	96.23%	4.00%	0.00%	0.001	28.00	0.20	7.03	6.75	0.19	4.53	0.83	0.00	100%	NA
State Potential to Emit												2.37	56.8	10.4	0.00		

*Materials contain reactive viscosity modifiers defined as solvents per 326 IAC 1-2-72. Worst case presumes 100% loss of reactive viscosity modifiers.

** Coatings applied using flow coat and manual cleaning

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)

Pounds VOC per Gallon of Solids = [Density (lb/gal) * Weight % Organics] / (Volume % Solids)

PTE VOC (pounds/hour) = Pounds of VOC/Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

PTE VOC (pounds/day) = Pounds of VOC/Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

PTE VOC (tons/year) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

PTE PM/PM10 (tons/year) = Max. (units/hour) * Gal of Mat (gal/unit) * Density (lbs/gal) * (1- Weight % Volatile) * (1-Transfer efficiency) *8760 hours/year *1ton/2000 lbs

PTE PM/PM10 (lbs/hour) = Max. (units/hour) * Gal of Mat (gal/unit) * Density (lbs/gal) * (1- Weight % Volatile) * (1-Transfer efficiency)

HAZARDOUS AIR POLLUTANTS

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Methanol	Weight % MIBK	Weight % Toluene	Methanol Emissions (ton/yr)	MIBK Emissions (ton/yr)	Toluene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
Cleanup Solvent S-0110	7.01	0.00100	28.000	20.00%	20.00%	70.00%	0.17	0.17	0.60	0.95
State Potential to Emit							0.17	0.17	0.60	0.95

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

*Materials contain reactive viscosity modifiers defined as solvents per 326 IAC 1-2-72. Worst case presumes 100% loss of reactive viscosity modifiers.

Appendix A: Summary Emissions

Company Name: Eash Industries, Inc.
Address: 120 Rush Court, Elkhart, IN 46516
Permit No.: 039-23410-00623
Reviewer: ERG/TDP
Date: July 17, 2006

POTENTIAL TO EMIT IN TONS PER YEAR

Emission Units	PM	PM10	SO ₂	NOx	VOC	CO	* Highest Single HAP	Combined HAP
Natural Gas Space Heating	0.019	0.076	0.006	0.998	0.055	0.839	--	1.88E-02
Miscellaneous Woodworking (WW1/LC1)	18.3	18.3	0.00	0.00	0.00	0.00	--	--
Assembly Operations (AA1)	0.00	0.00	0.00	0.00	0.21	0.00	0.01	0.01
Logo Attachment (LA1)	0.04	0.04	0.00	0.00	0.50	0.00	0.11	0.11
Surface Coating Booth (B1)	1.05	1.05	0.00	0.00	7.39	0.00	0.60	0.95
Epoxy Clearcoat (EC1)	0.00	0.00	0.00	0.00	10.4	0.00	0.60	0.95
TOTAL	19.4	19.5	0.01	1.00	18.5	0.84	1.32	2.02

*Vinyl Acetate, Hexane, and Toluene

HAZARDOUS AIR POLLUTANTS

Emission Units	Hexane	Methanol	MIBK	Toluene	Vinyl Acetate	Total HAP
Natural Gas Space Heating	--	--	--	--	--	1.88E-02
Miscellaneous Woodworking (WW1/LC1)	--	--	--	--	--	--
Assembly Operations (AA1)	--	--	--	--	0.01	0.01
Logo Attachment (LA1)	0.11	--	--	--	--	0.11
Surface Coating Booth (B1)	--	0.17	0.17	0.60	--	0.95
Epoxy Clearcoat (EC1)	--	0.17	0.17	0.60	--	0.95
TOTAL	0.11	0.34	0.34	1.20	0.01	2.02

15.02