

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.



Governor

Lori F. Kaplan
Commissioner

Joe McMillin
General Manager
Haulmark Industries, Inc.
P.O. Box 281
Bristol, IN 46507

6015

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-

(317) 232-8603
(800) 451-6027
www.state.in.us/idem

September 13., 2002

Re: Registered Construction and Operation Status,
039-15404-00567

Dear Mr. Miller:

The application from Haulmark Industries, received on March 21, 2002, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.1, it has been determined that the following motorcoach production facility, to be located at 52400 State Road 15, Bristol, Indiana, is classified as registered:

- (a) One (1) paint booth with a maximum capacity of 0.67 metal flooring units per hour, identified as EU-1, using dry filters as particulate control, and exhausting to stack ID-1.
- (b) Nine (9) metal inert gas (MIG) welding stations, with a maximum steel wire consumption of 0.27 pounds per hour per station and exhausting inside the building.
- (c) Four (4) natural gas space heaters, identified as H1, H2, H3, and H4 each having a maximum heat capacity of 0.1 MMBtu/hr.
- (d) One (1) general assembly area, identified as GA, with a maximum production capacity of 0.111 metal parts per hour, exhausting inside the building.

The following conditions shall be applicable:

- (1) 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:
 - (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 15 minutes (60 readings) in a 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.
- (2) Pursuant to 326 IAC 6-3-2(d) (Particulate), the spray paint booth (EU-1) shall meet the following requirements:

- (a) Surface coating shall be controlled by a dry particulate filter, waterwash, or an equivalent control device, and the control device shall be operated in accordance with the manufacturer's specifications.
- (b) If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:
 - (1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
 - (2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
- (c) If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.
- (3) Pursuant to 326 IAC 6-3-2 (c), the particulate matter emissions from each of the nine (9) welding stations shall not exceed 0.551 pounds per hour per unit, based on a maximum process weight of less than 100 pounds per hour per unit.
- (4) Any change or modification which would increase actual VOC emissions for the paint booth to greater than 15 pounds per day, shall obtain prior approval from IDEM, OAQ and shall be subject to the requirements of 326 IAC 8-2-9. Any change or modification which would increase the potential to emit VOC for the paint booth to twenty-five tons per year or more shall obtain prior approval from IDEM, OAQ and shall be subject to the requirements of 326 IAC 8-1-6.

Any change or modification which would increase the potential to emit for the paint booth to emit a single hazardous air pollutant (HAP) to ten tons per year or more or a combination of HAPs to twenty-five tons per year or more shall obtain prior approval from IDEM, OAQ and may be subject to the requirements of 326 IAC 2-4.1.

This registration is the first air approval 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 2-5.1-2(f)(3). The annual notice shall be submitted to:

Compliance Branch
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

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. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Eric Horner, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7890 to speak directly to Mr. Horner. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original signed by

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

ERG/EH

cc: File - Elkhart County
Elkhart County Health Department
Air Compliance - Paul Karkiewicz
Permit Tracking - Sara Cloe
Technical Support and Modeling - Michele Boner
Compliance Branch - Karen Nowak

Registration

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3)

Company Name:	Haulmark Industries, Inc.
Address:	P.O. Box 281
City:	Bristol, Indiana 46507
Authorized individual:	Chris Miller
Phone #:	(574) 825-5867
Registration #:	039-15404-00567

I hereby certify that Haulmark Industries, Inc. is still in operation and is in compliance with the requirements of Registration 039-15404-00567.

Name (typed):
Title:
Signature:
Date:

September 13, 2002

**Indiana Department of Environmental Management
Office of Air Quality****Technical Support Document (TSD) for a Registration****Source Background and Description**

Source Name: Haulmark Industries, Inc.
Source Location: 52400 State Road 15, Bristol, Indiana 46507
County: Elkhart
SIC Code: 3715
Operation Permit No.: 039-15404-00567
Permit Reviewer: ERG/EH

The Office of Air Quality (OAQ) has reviewed an application from Haulmark Industries, Inc. relating to the construction and operation of a motorcoach production facility.

Permitted Emission Units and Pollution Control Equipment

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

Unpermitted Emission Units and Pollution Control Equipment

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

New Emission Units and Pollution Control Equipment Receiving Prior Approval

The source consists of the following new emission units:

- (a) One (1) paint booth with a maximum capacity of 0.67 metal flooring units per hour, identified as EU-1, using dry filters as particulate control, and exhausting to stack ID-1.
- (b) Nine (9) metal inert gas (MIG) welding stations, with a maximum steel wire consumption of 0.27 pounds per hour per station and exhausting inside the building.
- (c) Four (4) natural gas space heaters, identified as H1, H2, H3, and H4 each having a maximum heat capacity of 0.1 MMBtu/hr.
- (d) One (1) general assembly area, identified as GA, with a maximum production capacity of 0.111 metal parts per hour, exhausting inside the building.

Existing Approvals

There are no existing approvals. This is a new facility.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the construction and 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.

An application for the purposes of this review was received on March 21, 2002, with additional information received on May 23, 2002.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 through 7).

Potential To Emit (of Source or Revision) 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/year)
PM	6.92
PM-10	6.92
SO ₂	---
VOC	8.0
CO	0.1
NO _x	0.2

HAP's	Potential To Emit (tons/year)
Xylene	less than 10
Hexane	less than 10
Toluene	less than 10
Ethylbenzene	less than 10
Glycol Ethers	less than 10
Tetrachloroethylene	less than 10
Manganese	less than 10
Chromium	less than 10
TOTAL	less than 25

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of criteria pollutants is less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of criteria pollutants is less than 25 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-6.1.

- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM and VOC are greater than levels listed in 326 IAC 2-1.1-3(d)(1), therefore the source is subject to the provisions of 326 IAC 2-5.5.1.
- (d) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) 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.
- (e) 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
SO ₂	Attainment
NO ₂	Attainment
Ozone	Maintenance Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Elkhart County has been classified as attainment or unclassifiable for criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, or 326 IAC 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 Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	less than 25
PM10	less than 25
SO ₂	less than 25
VOC	less than 25
CO	less than 25
NO _x	less than 25
Single HAP	less than 10
Combination HAPs	less than 25

This new source is not a major stationary source because no attainment 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, and 40 CFR 52.21, the PSD 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 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/year.

This is the first air approval issued to this 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 (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Elkhart County and the potential to emit of VOC is less than ten (10) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Visible Emissions 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%) 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 the motorcoach production facility 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 8-1-6 (New Facilities - General Reduction Requirement)

This source does not have potential VOC emissions equal to or greater than twenty five (25) tons per year, therefore this source is not subject to the provisions of 326 IAC 8-1-6.

326 IAC 6-3-2(d) (Particulate)

The spray paint booth (EU-1) is subject to 326 IAC 6-3-2(d) because it is not one of the exempt surface coating activities in 326 IAC 6-3-2 and the booth uses more than 5 gallons per day. The spray paint booth must meet the following requirements:

- (a) Surface coating shall be controlled by a dry particulate filter, waterwash, or an equivalent control device, and the control device shall be operated in accordance with the manufacturer's specifications.
- (b) If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:
 - (1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
 - (2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
- (c) If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

The spray paint booth (EU-1) is not subject to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) because the actual emissions from the coating operation are less than fifteen (15) pounds of VOC per day before add-on controls and it will be constructed after July 1, 1990.

326 IAC 6-3-2 (e) (Process Operations)

Pursuant to 326 IAC 6-3-2 (e), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour. Therefore, each of the nine (9) welding stations shall not exceed 0.551 pounds per hour per unit, based on a maximum process weight of less than 100 pounds per hour per unit.

326 IAC 2-5.5-1 (Registration Emission Levels)

Pursuant to 326 IAC 2-5.5-1, the volatile organic compound emissions from the spray paint booth (EU-1) shall not exceed twenty-five (25) tons per years.

326 IAC 2-5.5-1 (Registration Emission Levels)

Pursuant to 326 IAC 2-5.5-1, the potential to emit of any individual hazardous air pollutant from the spray paint booth (EU-1) shall not exceed ten (10) tons per year.

326 IAC 2-5.5-1 (Registration Emission Levels)

Pursuant to 326 IAC 2-5.5-1, the potential to emit of all hazardous air pollutants combined from the paint spray booth (EU-1) shall not exceed twenty-five (25) tons per year.

Conclusion

The construction and operation of this motorcoach production facility shall be subject to the conditions of the attached proposed Registration 039-15404-00567.

**Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

Company Name: Haulmark Industries, Inc. - Motor Coach Division
Address City IN Zip: 52400 State Road 15, Bristol, IN 46507
CP: 039-15404-00567
Pit ID: 039-00567
Reviewer: ERG/EH
Date: 5/28/02

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	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
Tectyl 1422s Black 3.4	9.5	36.29%	0.0%	36.3%	0.0%	48.00%	4.00000	0.067	3.45	3.45	0.92	22.20	4.05	1.78	7.19	75%
Benders Spray Adhesive	5.6	83.00%	0.0%	83.0%	0.0%	0.00%	0.20500	0.111	4.65	4.65	0.11	2.54	0.46	0.02	N/A	75%
Benders Spray Paint	6.1	85.00%	14.3%	70.7%	10.5%	15.00%	0.10200	0.111	4.83	4.32	0.05	1.17	0.21	0.01	28.81	75%
Benders Undercoating	6.7	81.00%	9.2%	71.8%	7.4%	19.00%	0.81900	0.111	5.17	4.79	0.44	10.45	1.91	0.13	25.20	75%
Maurer 210T Silkflex Primer	8.3	0.00%	0.0%	0.0%	0.0%	100.00%	0.65100	0.111	0.00	0.00	0.00	0.00	0.00	0.66	0.00	75%
LaSalle Bristol 94 Primer	7.2	94.00%	14.7%	79.3%	12.6%	6.00%	0.10600	0.111	6.50	5.68	0.07	1.60	0.29	0.01	94.64	75%
Maurer Sikaflex Sausage	9.9	9.00%	8.7%	0.3%	10.4%	91.00%	0.81000	0.111	0.03	0.03	0.00	0.07	0.01	1.78	0.03	50%
Alco Max Clean	7.2	98.00%	88.0%	10.0%	75.7%	0.00%	0.10200	0.111	2.94	0.72	0.01	0.19	0.04	0.00	N/A	50%
La Venture Vulkem	10.0	10.00%	0.0%	10.0%	0.0%	0.00%	0.56000	0.111	1.00	1.00	0.06	1.49	0.27	1.23	N/A	50%
Schnee-Moorhead Poly-Urethane Silicone	13.0	3.00%	0.0%	3.0%	0.0%	97.00%	0.13600	0.111	0.39	0.39	0.01	0.14	0.03	0.42	0.40	50%
La Venture White Silicone	10.0	10.00%	0.0%	10.0%	0.0%	0.00%	0.08800	0.111	1.00	1.00	0.01	0.23	0.04	0.19	N/A	50%
La Venture Floor Glue	10.2	0.00%	0.0%	0.0%	0.0%	65.00%	0.05000	0.111	0.00	0.00	0.00	0.00	0.00	0.12	0.00	50%
Mauer Construction Glue	9.0	34.00%	33.2%	0.8%	36.0%	66.00%	0.07500	0.111	0.11	0.07	0.00	0.01	0.00	0.11	0.10	50%
Schnee-Moorhead Construction Silicone	13.0	3.00%	0.0%	3.0%	0.0%	98.00%	0.02200	0.111	0.39	0.39	0.00	0.02	0.00	0.07	0.40	50%
Hahn Enerfoam	10.0	0.00%	0.0%	0.0%	0.0%	0.00%	0.01300	0.111	0.00	0.00	0.00	0.00	0.00	0.03	N/A	50%
Hahn Enerfoam Cleaner	8.0	95.80%	0.0%	95.8%	0.0%	4.20%	0.00400	0.111	7.65	7.65	0.00	0.08	0.01	0.00	182.25	50%
La Venture Clear Silicone	10.0	10.00%	0.0%	10.0%	0.0%	0.00%	0.00900	0.111	1.00	1.00	0.00	0.02	0.00	0.02	N/A	50%
LaSalle Bristol Black Pipe Dope	11.4	78.00%	0.0%	78.0%	0.0%	0.00%	0.02600	0.111	8.89	8.89	0.03	0.62	0.11	0.02	N/A	50%
LaSalle Bristol PVC Cleaner	7.5	100.00%	5.0%	95.0%	4.0%	0.00%	0.02600	0.111	7.42	7.13	0.02	0.49	0.09	0.00	N/A	50%
LaSalle Bristol Rectifier Seal	11.4	50.00%	0.0%	50.0%	0.0%	0.00%	0.00600	0.111	5.72	5.72	0.00	0.09	0.02	0.01	N/A	50%
Acetone	9.9	100.00%	0.0%	100.0%	0.0%	0.00%	0.05000	0.111	9.91	9.91	0.06	1.32	0.24	0.00	N/A	0%
Alcohol	6.6	100.00%	0.0%	100.0%	0.0%	0.00%	0.05000	0.111	6.55	6.55	0.04	0.87	0.16	0.00	N/A	0%
WD40	9.9	38.44%	0.0%	38.4%	0.0%	0.00%	0.01300	0.111	3.81	3.81	0.01	0.13	0.02	0.02	N/A	50%
Mineral Spirits	6.3	100.00%	0.0%	100.0%	0.0%	0.00%	0.00300	0.111	6.30	6.30	0.00	0.05	0.01	0.00	N/A	0%

State Potential Emissions

Add worst case coating to all solvents

1.83

43.81

8.00

6.62

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: Emissions Calculations

HAP Emissions

Surface Coating Activities

Company Name: Haulmark Industries, Inc. - Motor Coach Division
Address City IN Zip: 52400 State Road 15, Bristol, IN 46507
Permit Number: 039-15404-00567
PI# ID: 039-00567
Reviewer: ERG/EH
Date: 5/28/02

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Hexane	Weight % Toluene	Weight % Ethyl Benzene	Weight % Glycol Ethers	Weight % tetrachloroethylene	Xylene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Toluene Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Tetrachloroethylene Emissions (ton/yr)
Tetctyl 1422s Black 3.4	9.5	4.00000	0.067	15.00%	0.00%	1.70%	4.70%	0.50%	0.00%	1.67	0.00	0.19	0.52	0.06	0.0000
Benders Spray Adhesive	5.6	0.20500	0.111	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00	0.00	0.00	0.00	0.00	0.06
Benders Spray Paint	6.1	0.10200	0.111	2.50%	0.00%	19.00%	0.00%	0.00%	0.00%	0.01	0.00	0.06	0.00	0.00	0.0000
Benders Undercoating	6.7	0.81900	0.111	0.00%	0.00%	30.00%	0.00%	0.00%	0.00%	0.00	0.00	0.80	0.00	0.00	0.0000
Maurer 210T Silkaflex Primer	8.3	0.65100	0.111	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.0000
LaSalle Bristol 94 Primer	7.2	0.10600	0.111	35.00%	0.00%	0.00%	7.00%	7.00%	0.00%	0.13	0.00	0.00	0.03	0.03	0.0000
Maurer Sikaflex Sausage	9.9	0.81000	0.111	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.0000
Alco Max Clean	7.2	0.10200	0.111	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.0000
La Venture Vulkem	10.0	0.56000	0.111	0.50%	0.00%	0.50%	0.00%	0.00%	0.00%	0.01	0.00	0.01	0.00	0.00	0.0000
Schnee-Moorhead Poly-Urethane Silicone	13.0	0.13600	0.111	0.00%	0.00%	1.30%	0.00%	0.00%	0.00%	0.00	0.00	0.01	0.00	0.00	0.0000
La Venture White Silicone	12.2	0.08800	0.111	0.00%	5.00%	0.00%	1.00%	0.00%	0.00%	0.00	0.03	0.00	0.01	0.00	0.0000
La Venture Floor Glue	10.2	0.05000	0.111	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.0000
Mauer Construction Glue	9.0	0.07500	0.111	0.00%	13.18%	8.31%	0.00%	0.00%	0.00%	0.00	0.04	0.03	0.00	0.00	0.0000
Schnee-Moorehead Construction Silicone	13.0	0.02200	0.111	0.00%	0.00%	1.30%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.0000
Hahn Enerfoam	10.0	0.01300	0.111	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.0000
Hahn Enerfoam Cleaner	8.0	0.00400	0.111	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.0000
La Venture Clear Silicone	10.0	0.00900	0.111	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.0000
LaSalle Bristol Black Pipe Dope	7.1	0.02600	0.111	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.0000
LaSalle Bristol PVC Cleaner	6.6	0.02600	0.111	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.0000
LaSalle Bristol Rector Seal	11.4	0.00600	0.111	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.0000
Acetone	9.9	0.05000	0.111	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.0000
Alcohol	6.6	0.05000	0.111	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.0000
WD40	9.9	0.01300	0.111	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.0000
Mineral Spirits	6.3	0.00300	0.111	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.0000

Total State Potential Emissions

1.82 0.07 1.10 0.56 0.08 0.06

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
Welding and Thermal Cutting**

Company Name: Haulmark Industries, Inc. - Motor Coach Division
Address City IN Zip: 52400 State Road 15, Bristol, IN 46507
CP: 039-15404-00567
Pit ID: 039-00567
Reviewer: ERG/EH
Date: 5/28/02

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)		
			PM=PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr			
WELDING													
Submerged Arc				0.036	0.011			0.000	0.000	0.000		0	0.0000
Metal Inert Gas (MIG)(carbon steel)	9	0.27		0.0241	0.000034		0.00001	0.059	0.0000826	0.0000000	2.43E-05	0	0.0001
Stick (E7018 electrode)				0.0211	0.0009			0.000	0.000	0.000		0	0.0000
Tungsten Inert Gas (TIG)(carbon steel)				0.0055	0.0005			0.000	0.000	0.000		0	0.0000
Oxyacetylene(carbon steel)				0.0055	0.0005			0.000	0.000	0.000		0	0.0000
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	Cr	PM = PM10	Mn	Ni	Cr		
Oxyacetylene				0.1622	0.0005	0.0001	0.0003	0.000	0.000	0.000	0.000	0.000	0.000
Oxymethane				0.0815	0.0002		0.0002	0.000	0.000	0.000	0.000	0.000	0.000
Plasma**				0.0039				0.000	0.000	0.000	0.000	0.000	0.000
EMISSION TOTALS													
Potential Emissions lbs/hr								0.0586	0.0001	0.0000	0.0000		0.0001
Potential Emissions lbs/day								1.4055	0.0020	0.0000	0.0006		0.0026
Potential Emissions tons/year								0.2565	0.0004	0.0000	0.0001		0.0005

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 r

Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in./m) x (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick

Plasma cutting emissions, lb/hr: (# of stations)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 8 mm thick)

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: (# of stations)(max. lbs of electrode used/hr/station)(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.

Welding and other flame cutting emission factors are from an internal training session document.

Refer to AP-42, Chapter 12.19 for additional emission factors for welding.

**Appendix A: Emission Calculations
Natural Gas Combustion Only
four (4) space heaters rated at 0.1 MMBtu/hr each**

Company Name: Haulmark Industries, Inc. - Motor Coach Division
Address City IN Zip: 52400 State Road 15, Bristol, IN 46507
CP: 039-15404-00567
Plt ID: 039-00567
Reviewer: ERG/EH
Date: 5/28/02

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

0.4

3.5

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NO _x	VOC	CO
	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.0	0.0	0.0	0.2	0.0	0.1

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

**Emission Factors for NO_x: Uncontrolled = 100, Low NO_x Burner = 50, Low NO_x 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

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

Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)

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

See next page for HAPs emissions calculations.

Appendix A: Emission Calculations
Natural Gas Combustion Only
four (4) space heaters rated at 0.1 MMBtu/hr each

Company Name: Haulmark Industries, Inc. - Motor Coach Division
Address City IN Zip: 52400 State Road 15, Bristol, IN 46507
CP: 039-15404-00567
Plt ID: 039-00567
Reviewer: ERG/EH
Date: 5/28/02

HAPs - Organics

	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Emission Factor in lb/MMCF					
Potential Emission in tons/yr	3.679E-06	2.102E-06	1.314E-04	3.154E-03	5.957E-06

HAPs - Metals

	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Emission Factor in lb/MMCF					
Potential Emission in tons/yr	8.760E-07	1.927E-06	2.453E-06	6.658E-07	3.679E-06

Methodology is the same as previous page.

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

Summary Table

Company Name: Haulmark Industries, Inc. - Motor Coach Division
Address City IN Zip: 52400 State Road 15, Bristol, IN 46507
CP: 039-15404-00567
Pit ID: 039-00567
Reviewer: ERG/EH
Date: 5/28/02

Potential To Emit in Tons/Year

	PM	PM10	SO2	NOx	VOC	CO	Xylene	Hexane	Toluene	Ethylbenzene	Glycol Ethers	Tetrachloroethylene	Manganese	Chromium
Surface Coating	6.66	6.66	-	-	8.00	-	1.82	0.07	1.1	0.56	0.08	0.06	-	-
Welding	0.26	0.26	-	-	-	-	-	-	-	-	-	-	0.0004	0.0001
Heaters	-	-	-	0.2	-	0.1	-	-	-	-	-	-	-	-
Total	6.92	6.92	-	0.2	8.00	0.1	1.82	0.07	1.1	0.56	0.08	0.06	0.0004	0.0001

**Appendix A: Actual Emission Calculations
VOC and Particulate
From Surface Coating Operations**

Company Name: Haulmark Industries, Inc. - Motor Coach Division
Address City IN Zip: 52400 State Road 15, Bristol, IN 46507
CP: 039-15404-00567
Plt ID: 039-00567
Reviewer: ERG/EH
Date: 5/28/02

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	Pounds VOC per gallon of coating	Actual VOC pounds per hour	Actual VOC pounds per day	Actual VOC tons per year	Actual Particulate (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Tetctyl 1422s Black 3.4	9.5	36.29%	0.0%	36.3%	0.0%	48.00%	1.01600	0.067	3.45	3.45	0.23	5.64	1.03	0.45	7.19	75%
Benders Spray Adhesive	5.6	83.00%	0.0%	83.0%	0.0%	0.00%	0.05210	0.111	4.65	4.65	0.03	0.65	0.12	0.01	N/A	75%
Benders Spray Paint	6.1	85.00%	14.3%	70.7%	10.5%	15.00%	0.02590	0.111	4.83	4.32	0.01	0.30	0.05	0.00	28.81	75%
Benders Undercoating	6.7	81.00%	9.2%	71.8%	7.4%	19.00%	0.20800	0.111	5.17	4.79	0.11	2.65	0.48	0.03	25.20	75%
Maurer 210T Silkafflex Primer	8.3	0.00%	0.0%	0.0%	0.0%	100.00%	0.16540	0.111	0.00	0.00	0.00	0.00	0.00	0.17	0.00	75%
LaSalle Bristol 94 Primer	7.2	94.00%	14.7%	79.3%	12.6%	6.00%	0.02690	0.111	6.50	5.68	0.02	0.41	0.07	0.00	94.64	75%
Maurer Sikaflex Coatings	9.9	9.00%	8.7%	0.3%	10.4%	91.00%	0.20570	0.111	0.03	0.03	0.00	0.02	0.00	0.45	0.03	50%
Alco Max Clean	7.2	98.00%	88.0%	10.0%	75.7%	0.00%	0.02590	0.111	2.94	0.72	0.00	0.05	0.01	0.00	N/A	50%
La Venture Vulkem	10.0	10.00%	0.0%	10.0%	0.0%	0.00%	0.14220	0.111	1.00	1.00	0.02	0.38	0.07	0.31	N/A	50%
Schnee-Moorhead Poly-Urethane Silicone	13.0	3.00%	0.0%	3.0%	0.0%	97.00%	0.03450	0.111	0.39	0.39	0.00	0.04	0.01	0.11	0.40	50%
La Venture White Silicone	10.0	10.00%	0.0%	10.0%	0.0%	0.00%	0.02240	0.111	1.00	1.00	0.00	0.06	0.01	0.05	N/A	50%
La Venture Floor Glue	10.2	0.00%	0.0%	0.0%	0.0%	65.00%	0.01270	0.111	0.00	0.00	0.00	0.00	0.00	0.03	0.00	50%
Maurer Construction Glue	9.0	34.00%	33.2%	0.8%	36.0%	66.00%	0.01910	0.111	0.11	0.07	0.00	0.00	0.00	0.03	0.10	50%
Schnee-Moorehead Construction Silicone	13.0	3.00%	0.0%	3.0%	0.0%	98.00%	0.00560	0.111	0.39	0.39	0.00	0.01	0.00	0.02	0.40	50%
Hahn Enerfoam	10.0	0.00%	0.0%	0.0%	0.0%	0.00%	0.00330	0.111	0.00	0.00	0.00	0.00	0.00	0.01	N/A	50%
Hahn Enerfoam Cleaner	8.0	95.80%	0.0%	95.8%	0.0%	4.20%	0.00100	0.111	7.65	7.65	0.00	0.02	0.00	0.00	182.25	50%
La Venture Clear	10.0	10.00%	0.0%	10.0%	0.0%	0.00%	0.00230	0.111	1.00	1.00	0.00	0.01	0.00	0.01	N/A	50%
LaSalle Bristol Black Pipe Dope	11.4	78.00%	0.0%	78.0%	0.0%	0.00%	0.00660	0.111	8.89	8.89	0.01	0.16	0.03	0.00	N/A	50%
LaSalle Bristol PVC Cleaner	7.5	100.00%	5.0%	95.0%	4.0%	0.00%	0.00660	0.111	7.42	7.13	0.01	0.13	0.02	0.00	N/A	50%
LaSalle Bristol Sealant	11.4	50.00%	0.0%	50.0%	0.0%	0.00%	0.00150	0.111	5.72	5.72	0.00	0.02	0.00	0.00	N/A	50%
Acetone	9.9	100.00%	0.0%	100.0%	0.0%	0.00%	0.01270	0.111	9.91	9.91	0.01	0.34	0.06	0.00	N/A	0%
Alcohol	6.6	100.00%	0.0%	100.0%	0.0%	0.00%	0.01270	0.111	6.55	6.55	0.01	0.22	0.04	0.00	N/A	0%
WD40	9.9	38.44%	0.0%	38.4%	0.0%	0.00%	0.00330	0.111	3.81	3.81	0.00	0.03	0.01	0.00	N/A	50%
Mineral Spirits	6.3	100.00%	0.0%	100.0%	0.0%	0.00%	0.00080	0.111	6.30	6.30	0.00	0.01	0.00	0.00	N/A	0%

State Actual Emissions

Add worst case coating to all solvents

0.46 11.13 2.03 1.68

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)
Actual VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Actual VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Actual 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 Actual 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