



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: January 13, 2006  
RE: Liftco, Inc. / 039-21952-00640  
FROM: Paul Dubenetzky  
Chief, Permits Branch  
Office of Air Quality

### Notice of Decision – Approval

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 326 IAC 2, this approval was effective immediately upon submittal of the application.

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 from 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  
FNPER-AM.dot 1/10/05



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

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January 13, 2006

Mr. Duane Courser  
Liftco, Inc.  
24076 Reedy Drive  
Elkhart, IN 46514

Re: Exempt Construction and Operation Status,  
039-21952-00640

Dear Mr. Courser:

The application from Liftco, Inc., received on November 3, 2005, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following stationary recreational vehicle slide out surface coating plant, located at 24076 Reedy Drive, Elkhart, Indiana 46514, is classified as exempt from air pollution permit requirements:

- (a) one (1) electrostatic powder coating booth, constructed in 2005, for surface coating of slide outs for recreational vehicles at a maximum capacity of 1500 pounds of steel per hour, equipped with two (2) manual spray guns, designated as EU-01 and EU-02, with a total maximum coating rate of 40 pounds of powder coating per hour, with powder overspray collected by two modular powder coating recovery systems, each with a control efficiency of 99%, exhausting to the indoors.
- (b) one (1) natural gas-fired heater, constructed in 2005, rated at 0.9 MMBtu/hr, exhausting to the indoors;
- (c) one (1) natural gas-fired heater, constructed in 2005, rated at 1.5 MMBtu/hr, exhausting to the indoors;
- (d) one (1) natural gas-fired heater, constructed in 2005, rated at 2.5 MMBtu/hr, exhausting to the indoors;

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 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) Since the powder coating recovery system is considered an integral part of the powder coating booth and is necessary to comply with the requirements of 326 IAC 6-3-2, particulate from the powder coating booth shall be controlled by the powder coating recovery system at all times that the powder coating booth is in operation, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

The powder coating booth has applicable compliance monitoring requirements as specified below:

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the powder coating recovery system. To monitor the performance of the powder coating recovery system, weekly observations shall be made of the overspray from the powder coating booth exhaust while the booth is in operation. If a condition exists which indicates that the powder coating recovery system is not properly controlling particulate emissions from the powder coating booth, the Permittee shall take reasonable response steps to restore operation of the powder coating booth (including the powder coating recovery system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Failure to take reasonable response steps shall be considered a deviation from the permit.
- (b) Monthly inspections shall be performed of the coating emissions from the powder coating booth exhaust and the presence of overspray at the exhaust and the nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps to restore operation of the powder coating booth (including the powder coating recovery system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Failure to take reasonable response steps shall be considered a deviation from the permit.

This exemption is the first air approval issued to this source.

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, 46204, at 317-234-3350 or at 1-800-451-6027 (ext 43350).

Sincerely,

Origin signed by

Nysa L. James, Section 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

# Indiana Department of Environmental Management Office of Air Quality

## Technical Support Document (TSD) for an Exemption

### Source Background and Description

**Source Name:** Liftco, Inc.  
**Source Location:** 24076 Reedy Drive, Elkhart, Indiana 46514  
**County:** Elkhart  
**SIC Code:** 3714 (Manufacturing of Motor Vehicle Parts and Accessories)  
3479 (Coating, Engraving, & Allied Services, Not Elsewhere Classified)  
**Application No.:** 039-21952-00640  
**Reviewer:** Nathan C. Bell

On November 3, 2005, the Office of Air Quality (OAQ) received an application from Liftco, Inc. relating to the construction and operation of a stationary recreational vehicle slide out surface coating plant.

### New Emission Units and Pollution Control Equipment

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

- (a) one (1) electrostatic powder coating booth, constructed in 2005, for surface coating of slide outs for recreational vehicles at a maximum capacity of 1500 pounds of steel per hour, equipped with two (2) manual spray guns, designated as EU-01 and EU-02, with a total maximum coating rate of 40 pounds of powder coating per hour, with powder overspray collected by a powder coating recovery system, with a control efficiency of 99%, exhausting to the indoors.
- (b) one (1) natural gas-fired heater, constructed in 2005, rated at 0.9 MMBtu/hr, exhausting to the indoors;
- (c) one (1) natural gas-fired heater, constructed in 2005, rated at 1.5 MMBtu/hr, exhausting to the indoors;
- (d) one (1) natural gas-fired heater, constructed in 2005, rated at 2.5 MMBtu/hr, exhausting to the indoors;

### Unpermitted Emission Units and Pollution Control Equipment

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

### Existing Approvals

There are no existing approvals for this source

### Enforcement Issue

There are no enforcement actions pending.

### **Air Pollution Control Justification as an Integral Part of the Process**

The company had submitted the following justification for considering the powder coating recovery system as an integral part of the powder coating booth:

The powder coating recovery system (consisting of two modular units, one unit for the white powder coating, one unit for the black powder coating) should be considered integral to the normal operation of the coating booth, since there is significant economic benefit gained by collecting and re-using the powder coating. Based on a total initial capital cost of \$36,000 for both modular recovery units, a powder coating unit cost of \$2.33 per pound, and a powder re-use rate of 20 pounds per hour, the number of hours needed during the first year of operation to recover the capital cost would be approximately 773 hours (32 weeks). Based on a total annual operational cost for both modular recovery units of \$12,000, the number of hours needed each year to recover the annual operational cost would be approximately 258 hours (11 weeks).

IDEM, OAQ has evaluated the justification and agreed that the powder coating recovery system described above will be considered as an integral part of the coating booth. Therefore, the permitting level will be determined using the potential to emit after the powder coating recovery system. Particulate from the coating booth shall be controlled by the powder coating recovery system at all times that the coating booth is in operation, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

### **Recommendation**

The staff recommends to the Commissioner that the application be approved as an exemption. 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 November 3, 2005. Additional information was submitted by the source on November 28, 2005 and January 5, 2005.

### **Emission Calculations**

- (a) See Appendix A of this TSD for detailed emissions calculations (Appendix A, pages 1 through 3).

### **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."

Pollutant	Potential To Emit (tons/year)
PM	0.92
PM-10	1.04
SO <sub>2</sub>	0.01
NO <sub>x</sub>	2.15
VOC	0.12
CO	1.80

HAPs	Potential To Emit (tons/year)
Chromium	negligible
Manganese	negligible
Nickel	negligible
n-Hexane	0.04
Toluene	negligible
Benzene	negligible
Dichlorobenzene	negligible
Formaldehyde	negligible
Lead	negligible
Cadmium	negligible
<b>TOTAL HAPs</b>	<b>0.04</b>

- (a) The PTE (as defined in 326 IAC 2-1.1-1(16)) of regulated criteria pollutants are less than the levels listed in 326 IAC 2-1.1-3(e)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3.
- (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 subject to the provisions of 326 IAC 2-1.1-3.

**County Attainment Status**

The source is located in Elkhart County.

Pollutant	Status
PM10	Attainment or Unclassifiable
PM2.5	Attainment or Unclassifiable
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	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 basic nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) 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.

- (c) 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.
- (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

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	0.92
PM-10	1.04
SO <sub>2</sub>	0.01
NO <sub>x</sub>	2.15
VOC	0.12
CO	1.80
Worst Single HAP	0.04
Combination HAPs	0.04

- (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 40 CFR 60, Subpart MM, New Source Performance Standards (NSPS) for Automobile and Light Duty Truck Surface Coating Operations (40 CFR 60.390 through 60.398) (326 IAC 12), because this source is not an automobile or light-duty truck assembly plant that surface coats automobile or light duty truck bodies. This source performs surface coating of slide outs for recreational vehicles.

- (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 40 CFR 63, Subpart IIII, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Surface Coating of Automobiles and Light-Duty Trucks (40 CFR 63.3080 through 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 performs surface coating of slide outs for recreational vehicles.
- (d) This source is not subject to the requirements of the 40 CFR 63, Subpart Mmmm, NESHAPs for Surface Coating of Miscellaneous Metal Parts and Products (40 CFR 63.3880 through 63.3981), because this source is not a major source of HAPs as defined in 40 CFR 63.2.
- (e) This source is not subject to the requirements of 40 CFR 63, Subpart DDDDD, NESHAPs for Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR 63.7480 through 63.7575), because the source is not a major source of HAPs as defined in 40 CFR 63.2.
- (f) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (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))

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

##### 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. This source will be constructed in Elkhart County, which has been designated as basic nonattainment for the 8-hour ozone standard. The uncontrolled potential to emit of VOC and NOx are each less than 100 tons per year. Therefore, the requirements of 326 IAC 2-3 (Emission Offset) are not 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 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 - Powder Coating Booth**

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

Pursuant to 326 IAC 6-3-1(b)(14), the powder coating booth is exempt from the requirements of 326 IAC 6-3, because it has a potential particulate emissions less than five hundred fifty-one thousandths (0.551) pound per hour. IDEM, OAQ has agreed that the powder coating recovery system will be considered as an integral part of the powder coating booth and the potential to emit particulates (PM/PM10) will be determined after the powder coating recovery system.

Since the powder coating recovery system is considered an integral part of the powder coating booth and is necessary to comply with the requirements of 326 IAC 6-3-2, particulate from the powder coating booth shall be controlled by the powder coating recovery system at all times that the powder coating booth is in operation, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

#### 326 IAC 8-2 (Surface Coating Emission Limitations)

Pursuant to 326 IAC 8-2-1 (Applicability) and 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), 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 one (1) powder coating booth is not subject to the requirements of 326 IAC 8-2-9 because spray application of the dry powder coatings does not emit VOCs.

### **State Rule Applicability – Natural Gas Combustion Sources**

#### 326 IAC 4-2-2 (Incinerators)

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

## Testing Requirements

Compliance testing is not required for any of the emission units at this source.

## Compliance Requirements

The powder coating booth has applicable compliance monitoring requirements as specified below:

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the powder coating recovery system. To monitor the performance of the powder coating recovery system, weekly observations shall be made of the overspray from the powder coating booth exhaust while the booth is in operation. If a condition exists which indicates that the powder coating recovery system is not properly controlling particulate emissions from the powder coating booth, the Permittee shall take reasonable response steps to restore operation of the powder coating booth (including the powder coating recovery system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Failure to take reasonable response steps shall be considered a deviation from the permit.
- (b) Monthly inspections shall be performed of the coating emissions from the powder coating booth exhaust and the presence of overspray at the exhaust and the nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps to restore operation of the powder coating booth (including the powder coating recovery system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Failure to take reasonable response steps shall be considered a deviation from the permit.

These monitoring conditions are necessary, since the powder coating recovery system is considered integral to the process and since the powder coating recovery system must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and 326 IAC 2-1.1-3 (Exemptions).

## Conclusion

The operation of this source shall be subject to the conditions of the attached exemption No 039-21952-00640.

**Appendix A: Emissions Calculations  
Emission Summary**

**Company Name:** Liftco, Inc.  
**Address City IN Zip:** 24076 Reedy Dr., Elkhart, IN 46514  
**Permit Number:** 039-21952  
**PIt ID:** 039-00640  
**Reviewer:** Nathan C. Bell  
**Date:** December 29, 2005

Category	Uncontrolled Potential Emissions (tons/year)			
	Emissions Generating Activity			
	Pollutant	Powder Coating Booth	Natural Gas Combustion	TOTAL
Criteria Pollutants	PM	0.88	0.04	0.92
	PM10	0.88	0.16	1.04
	SO2		0.01	0.01
	NOx		2.15	2.15
	VOC		0.12	0.12
	CO		1.80	1.80
Hazardous Air Pollutants	Chromium		3.0E-05	3.0E-05
	Manganese		8.2E-06	8.2E-06
	Nickel		4.5E-05	4.5E-05
	n-Hexane		0.04	0.04
	Toluene		7.3E-05	7.3E-05
	Benzene		4.5E-05	4.5E-05
	Dichlorobenzene		2.6E-05	2.6E-05
	Formaldehyde		1.6E-03	1.6E-03
	Lead		1.1E-05	1.1E-05
	Cadmium		2.4E-05	2.4E-05
	<b>Totals</b>	<b>0.00</b>	<b>0.04</b>	<b>0.04</b>
			<b>Worse Case HAP</b>	<b>0.04</b>

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

**Appendix A: Emissions Calculations  
Powder Coating Booth**

**Company Name:** Liftco, Inc.  
**Address City IN Zip:** 24076 Reedy Dr., Elkhart, IN 46514  
**Permit Number:** 039-21952  
**Plt ID:** 039-00640  
**Reviewer:** Nathan C. Bell  
**Date:** December 29, 2005

**Potential to Emit Particulate Matter (PM/PM10)**

Total Powder Usage =	40	lbs/hr (90% white powder, 10% black powder)
Transfer Efficiency =	50.0%	
Overspray Rate =	20	lbs/hr (powder re-use rate)
Percent PM/PM10 particles =	100.0%	(assuming worst case particle size distribution)
Filter Collection Efficiency* =	99.0%	
Uncontrolled PTE of PM/PM10* =	0.20	lbs/hr
Uncontrolled PTE of PM/PM10* =	0.876	tons/yr

\*IDEM, OAQ has agreed that the powder coating recovery system will be considered as an integral part of the powder coating booth and the potential to emit particulate (PM/PM10) will be determined after the powder coating recovery system.

**Methodology**

Overspray Rate (lbs/hr) = [Powder Usage (lbs/hr)] \* [1 - Transfer Efficiency]

Uncontrolled PTE of PM/PM10 (lbs/hr) = [Overspray Rate (lbs/hr)] \* [Percent PM/PM10 particles] \* [1 - Collection Efficiency]

Uncontrolled PTE of PM/PM10 (tons/yr) = Uncontrolled PTE of PM/PM10 (lbs/hr) \* [8760 hr/yr] \* [1 ton/2000 lbs]

**Compliance with 326 IAC 6-3-2:**

Allowable Emissions,  $E = 4.10 * P^{0.67}$  (for weight rates up to 60,000 lb/hr)

where E = emissions in lbs/hr  
P = process weight in tons/hr  
P = 1500 lbs/hr  
= 0.75 tons/hr

Allowable PM Emissions, E = 3.38 lbs/hr  
= 81.1 lbs/day  
= 14.8 tons/yr

Pursuant to 326 IAC 6-3-1(b)(14), the powder coating booth is exempt from the requirements of 326 IAC 6-3, because it has a potential particulate emissions less than five hundred fifty-one thousandths (0.551) pound per hour. Particulate from the powder coating booth shall be controlled by the powder coating recovery system at all times that the powder coating booth is in operation to comply with the 326 IAC 6-3-2 allowable emission rate above.

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

**Company Name: Liftco, Inc.**  
**Address City IN Zip: 24076 Reedy Dr., Elkhart, IN 46514**  
**Permit Number: 039-21952**  
**Plt ID: 039-00640**  
**Reviewer: Nathan C. Bell**  
**Date: December 29, 2005**

					Pollutant	PM*	PM10*	SO2	NOx**	VOC	CO
					Emission Factor (lb/MMCF)	1.9	7.6	0.6	100	5.5	84.0
Emission Unit	Number of Units	Unit Heat Input Capacity MMBtu/hr	Combined Total Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Potential Emission tons/yr						
					PM*	PM10*	SO2	NOx**	VOC	CO	
Heater	1	0.9	0.9	7.88	0.007	0.030	0.002	0.394	0.022	0.331	
Heater	1	1.5	1.5	13.14	0.012	0.050	0.004	0.657	0.036	0.552	
Heater	1	2.5	2.5	21.90	2.1E-02	0.083	0.007	1.095	0.060	0.920	
<b>Totals</b>	<b>3</b>		<b>4.9</b>		<b>0.041</b>	<b>0.163</b>	<b>0.013</b>	<b>2.146</b>	<b>0.118</b>	<b>1.803</b>	

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
Emission Unit	Potential Emission tons/yr									
	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
Heater	8.3E-06	4.7E-06	3.0E-04	0.007	1.3E-05	2.0E-06	4.3E-06	5.5E-06	1.5E-06	8.3E-06
Heater	1.4E-05	7.9E-06	4.9E-04	0.012	2.2E-05	3.3E-06	7.2E-06	9.2E-06	2.5E-06	1.4E-05
Heater	2.3E-05	1.3E-05	8.2E-04	0.020	3.7E-05	5.5E-06	1.2E-05	1.5E-05	4.2E-06	2.3E-05
<b>Totals</b>	<b>4.5E-05</b>	<b>2.6E-05</b>	<b>1.6E-03</b>	<b>0.039</b>	<b>7.3E-05</b>	<b>1.1E-05</b>	<b>2.4E-05</b>	<b>3.0E-05</b>	<b>8.2E-06</b>	<b>4.5E-05</b>

\*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

PM10 = Particulate Matter (<10 um)

SO2 = Sulfur Dioxide

NOx = Nitrous Oxides

VOC - Volatile Organic Compounds

CO = Carbon Monoxide

DCB = Dichlorobenzene

Pb = Lead

Cd = Cadmium

Cr = Chromium

Mn = Manganese

Ni = Nickel