

Ms. Betty Dunham  
Rauch Rehabilitation and Development Services  
845 Park Place  
New Albany, IN 47150

Re: AAT043-10596  
First Administrative Amendment to  
Title V Permit 043-7097-00021

Dear Ms. Betty Dunham:

Rauch Rehabilitation, Inc. was issued a permit on October 7, 1998 for a miscellaneous metal surface and coating operation. A letter, which was received on February 3, 1999, requested a Title V amendment regarding clarification of the spray coating application method that is used. In their October 7, 1998 Title V permit the method is listed as an airless application system but, according to their letter the method used is an air spray gun. This would result in a change of transfer efficiency which would increase PM and PM10 emissions by 17.3 tons/year. However, when control devices are considered the potential to emit is less than five (5) tons/year therefore there are no changes in rule applicability so the Title V modification will be covered as an Administrative Amendment. Pursuant to the provisions of 2-7-11 the permit is hereby administratively amended as follows:

A.2(a): One (1) spray booth, identified as EU-01, with a maximum capacity of 2400 pounds of metal parts per hour, utilizing an ~~airless~~ **air spray gun** application system, with baffles for control of particulate matter overspray, and exhausting to stack S1.

D (Facility Description):

One (1) spray booth, identified as EU-01, with a maximum capacity of 2400 pounds of metal parts per hour, utilizing an ~~airless~~ **air spray gun** application system, with baffles for control of particulate matter overspray, and exhausting to stack S1.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment, the following revised permit pages (pages 4, and 25), and the technical support document to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Lynn Nieman at (800) 451-6027, press 0 and ask for Lynn Nieman or extension 3-2627, or dial (317) 233-2627.

Sincerely,

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Management

Attachments

GLN

cc: File - Floyd County  
U.S. EPA, Region V  
Floyd County Health Department  
Air Compliance Section Inspector - Joe Foyst  
Compliance Data Section - Jerri Curless  
Administrative and Development - Janet Mobley  
Technical Support and Modeling - Nancy Landau

**PART 70 OPERATING PERMIT  
OFFICE OF AIR MANAGEMENT**

**Rauch Rehabilitation and Developmental Services, Inc.  
845 Park Place  
New Albany, Indiana 47150**

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T043-7097-00021	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Management	Issuance Date:  October 7, 1998

First Administrative Amendment AAT043-10596-00021	Pages Affected: 4, and 25
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Management	Issuance Date:

## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

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The Permittee owns and operates a stationary wood office furniture (chair) manufacturing plant.

Responsible Official: Betty Dunham  
Source Address: 845 Park Place, New Albany, Indiana 47150  
Mailing Address: 845 Park Place, New Albany, Indiana 47150  
SIC Code: 8331  
County Location: Floyd County  
County Status: Nonattainment for ozone  
Attainment or unclassifiable for all other criteria pollutants  
Source Status: Part 70 Permit Program  
Minor Source, under PSD or Emission Offset Rules;  
Major Source, Section 112 of the Clean Air Act

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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

- (a) One (1) spray booth, identified as EU-01, with a maximum capacity of 2400 pounds of metal parts per hour, utilizing an air spray gun application system, with baffles for control of particulate matter overspray, and exhausting to stack S1.

### A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4 (c)] [326 IAC 2-7-5(15)]

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This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (d) One (1) MIG welding station, identified as MW1, with a maximum capacity of 156 pounds per year, and exhausting to general ventilation.

### A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

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This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

## SECTION D.1 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]

One (1) spray booth, identified as EU-01, with a maximum capacity of 2400 pounds of metal parts per hour, utilizing an air spray gun application system, with baffles for control of particulate matter overspray, and exhausting to stack S1.

#### D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the spray booth shall be limited to 3.5 pounds of VOCs per gallon of coating less water for air dried coatings.

#### D.1.2 Emission Offset Minor Limit [326 IAC 2-3]

Pursuant to CP-043-2789-00021 issued on June 10, 1993, any change or modification which may increase potential VOC emissions to 100 tons per twelve (12) consecutive month period, including coatings, dilution solvents, from the spray booth shall obtain a permit pursuant to 326 IAC 2-3 (Emission Offset) before such change may occur.

#### D.1.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c), the PM from the spray booth shall not exceed the pound per hour emission rate established as E in the following formula:

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

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

#### D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

### Compliance Determination Requirements

#### D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.1.3 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

#### D.1.6 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.1.1 and D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

## Indiana Department of Environmental Management Office of Air Management

### Technical Support Document (TSD) for a Part 70 Administrative Amendment

#### Source Background and Description

Source Name: Rauch Rehabilitation and Developmental Services, Inc.  
Source Location: 845 Park Place, New Albany, Indiana 47150  
County: Floyd  
SIC Code: 8331  
Operation Permit No.: T043-7097-00021 Issued: October 7, 1998  
Permit Reviewer: Bryan Sheets  
Revision No.: AAT043-10596  
Modification Reviewer: Lynn Nieman

#### History

Rauch Rehabilitation and Developmental Services, Inc., was issued a permit on October 7, 1998, for a miscellaneous metal surface coating operation. A request for administrative review was received on February 3, 1999. The following changes were made as the first administrative amendment to the source.

#### CHANGES

##### Permitted Emission Units and Pollution Control Equipment

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

- (a) One (1) spray booth, identified as EU01, with a maximum capacity of 2400 pounds of metal parts per hour, utilizing an ~~airless~~ **air spray gun** application system, with baffles for control of particulate matter overspray, and exhausting to stack S1.

##### Unpermitted Emission Units and Pollution Control Equipment

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

##### Insignificant Activities

There are no changes in Insignificant activities from the original Title V.

##### Existing Approvals

There are no changes in Existing Approvals from the original Title V.

### Enforcement Issue

There are no changes in Enforcement actions pending from the original Title V.

### Recommendation

The staff recommends to the Commissioner that the First Administrative Amendment be approved. This recommendation is based on the following facts and conditions:

The increase in the Potential to Emit of Particulate Matter (PM) is 5 tons/year. The Title V permit issued on October 7, 1998 has federally enforceable conditions that require the use of dry filters as Particulate Matter (PM) control in the spray booth.

### Emission Calculations

- (a) See Appendix A of this document for detailed emissions calculations.
- (b) Since the increase in Potential to Emit of Particulate Matter (PM) is less than five (5) tons per year, this is being processed as an Administrative Amendment under 326 IAC 2-7.

### Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source 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.”

Pollutant	Potential To Emit (tons/year)
PM	<del>47.24</del> 22.21
PM-10	<del>47.24</del> 22.21
SO <sub>2</sub>	negligible
VOC	52.21
CO	0.04
NO <sub>x</sub>	0.09

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Ethyl benzene	3.13
Manganese	negligible
Methyl Isobutyl Ketone	1.47
Xylene	22.78
TOTAL	23.81*

\* The total HAPs are based on the sum of HAPs using the worst case coating and solvent.

The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

### Actual Emissions

There are no changes in actual emission from the original Title V.

### **County Attainment Status**

There are no changes in County Attainment Status from the original Title V.

### **Federal Rule Applicability**

There are no changes in Federal Rule Applicability from the original Title V.

### **State Rule Applicability - Entire Source**

There are no changes in State Rule Applicability - Entire Source from the original Title V.

### **State Rule Applicability - Surface Coating Booth**

There are no changes in State Rule Applicability - Surface Coating Booth from the original Title V.

### **Compliance Requirements**

There are no changes in Compliance Requirements from the original Title V.

### **Air Toxic Emissions**

There are no changes in Air Toxic Emissions from the original Title V.

### **Conclusion**

The modification of this source will be subject to the conditions of the attached Title V Administrative Amendment No.: AT043-10596-00021.

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

**Company Name:** Rauch Rehabilitation and Developmental Services, Inc.  
**Address City IN Zip:** 845 Park Place, New Albany, IN 47150  
**OP #:** T043-7097-00021  
**PI# ID:** 043-00021  
**Reviewer:** Lynn Nieman  
**Date:** 2-9-99

Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
10.4	33.65%	0.0%	33.7%	0.0%	64.15%	0.00063	2400.000	3.50	3.50	5.29	126.99	23.18	22.85	5.46	50%
11.2	30.73%	0.0%	30.7%	0.0%	51.80%	0.00063	2400.000	3.44	3.44	5.20	124.89	22.79	26.69	6.64	50%
8.0	43.36%	0.0%	43.4%	0.0%	49.30%	0.00125	2400.000	3.47	3.47	10.41	249.75	45.58	29.77	7.04	50%
8.3	40.39%	0.0%	40.4%	0.0%	36.71%	0.00125	2400.000	3.35	3.35	10.06	241.37	44.05	32.51	9.13	50%
8.7	39.63%	0.0%	39.6%	0.0%	41.30%	0.00125	2400.000	3.45	3.45	10.34	248.24	45.30	34.51	8.35	50%
7.3	100.00%	0.0%	100.0%	0.0%	0.00%	0.00009	2400.000	7.30	7.30	1.58	37.84	6.91	0.00	ERR	50%

**Add worst case coating to all solvents**

**11.99      287.59      52.21      34.51**

surcoat.wb3

**Appendix A: Emission Calculations  
HAP Emission Calculations  
From Surface Coating**

**Company Name:** Rauch Rehabilitation and Developmental Services, Inc.  
**Address City IN Zip:** 845 Park Place, New Albany, IN 47150  
**OP #:** T043-7097-00021  
**Permit Reviewer:** Bryan Sheets  
**Date:** 02/23/98

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Ethylbenzene	Weight % Methyl Isobutyl Ketone	Xylene Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)	Methyl Isobutyl Ketone Emissions (ton/yr)
Black High Solids Primer	10.4	0.00063	2400	24.80%	0.00%	0.00%	16.95	0.00	0.00
Shoppcoat Primers Gray	11.2	0.000630	2400.00	6.00%	1.00%	2.00%	4.40	0.73	1.47
Quik Dry 350 Enamel (Blue)	8	0.001250	2400.00	11.00%	2.00%	0.00%	11.53	2.10	0.00
Safety Red	8.3	0.001250	2400.00	0.00%	0.00%	0.00%	0.00	0.00	0.00
Industrial Enamel Yellow	8.7	0.001250	2400.00	0.00%	0.00%	0.00%	0.00	0.00	0.00
Xylene	7.3	0.000090	2400.00	85.00%	15.00%	0.00%	5.83	1.03	0.00

Total State Potential Emissions

**22.78      3.13      1.47**

**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  
Natural Gas Combustion Only  
MM BTU/HR <100  
Small Industrial Boiler**

**Company Name:** Rauch Rehabilitation and Developmental Services, Inc.  
**Address City IN Zip:** 845 Park Place, New Albany, IN 47150  
**OP #:** T043-7097-00021  
**PI# ID:** T043-00021  
**Reviewer:** Bryan Sheets  
**Date:** 02/23/98

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

0.2

2.0

**Pollutant**

Emission Factor in lb/MMCF	PM	PM10	SO2	NOx	VOC	CO
	11.2	11.2	0.6	94.0	7.3	40.
				*see below		
Potential Emission in tons/yr	0.0	0.0	0.0	0.1	0.0	0.0

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

PM emission factors are condensable and filterable.

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

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)

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

gasc99.wb3

**MIG Welding  
E70S-3 Electrode**

156 pounds per year x 0.0051 pounds PM/pounds electrode/2000 pounds per ton = 3.98 x 10<sup>-4</sup> tons PM per year  
 156 pounds per year x 0.0003 pounds Mn/pounds electrode/2000 pounds per ton = 2.34 x 10<sup>-5</sup> tons PM per year