



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: November 5, 2008

RE: Winona Powder Coating / 039-27001-00678

FROM: Matthew Stuckey, Branch 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, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FN-REGIS.dot 1/2/08



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REGISTRATION OFFICE OF AIR QUALITY

**Winona Powder Coating
800 Summa Drive
Elkhart, Indiana 46516**

Pursuant to 326 IAC 2-5.1 (Construction of New Sources: Registrations) and 326 IAC 2-5.5 (Registrations), (herein known as the Registrant) is hereby authorized to construct and operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this registration.

Registration No. 039-27001-00678	
Issued by: <i>Original Signed By:</i> Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: November 5, 2008

SECTION A

SOURCE SUMMARY

This registration is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Registrant 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 Registrant to obtain additional permits pursuant to 326 IAC 2.

A.1 General Information

The Registrant owns and operates a stationary liquid painting and powder coating of metal products operation.

Source Address:	800 Summa Drive, Elkhart, Indiana 46516
Mailing Address:	800 Summa Drive, Elkhart, Indiana 46516
General Source Phone Number:	574-294-6662
SIC Code:	3479
County Location:	Elkhart County
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Registration

A.2 Emission Units and Pollution Control Equipment Summary

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

- (a) Four (4) powder spray coating booths, identified as PB-1, PB-2, PB-3 and PB-4. Each booth is equipped with two (2) high volume low pressure (HVLP) spray guns used to paint various steel and aluminum shapes. The booths were constructed in 2003, each with a maximum capacity of 60 pounds of powder coating and 380 parts per hour. Powders are recycled using a fabric baghouse attached to the spray booth. Fifty percent of the 25% overspray is reused or sprayed again, which is considered to be integral to the process. PB-2 exhausts to stack (S20).
- (b) One (1) powder booth lab, identified as PB-5, constructed in 2004, with a baghouse, exhausting to stack (S21).
- (c) One (1) pretreat washer, identified as PW-1, constructed in 2003, and containing the following natural gas-fired heating units:
 - (1) Washer stage dry off oven, identified as GO-2, constructed in 2003, having a maximum heat input capacity of 1.5 MMBtu/hr, and exhausting to stack (S2).
 - (2) Washer stage 1 burner, with a maximum heat capacity of 2.5 MMBtu/hr.
 - (3) Washer stage 2 burner, with a maximum heat capacity of 1.5 MMBtu/hr.
- (d) One (1) pretreat washer, identified as PW-2, constructed in 2003, and containing the following natural gas-fired heating units:
 - (1) Washer stage dry off oven, identified as GO-4, constructed in 2003, having a maximum heat input capacity of 4.5 MMBtu/hr, and exhausting to stack (S4).
 - (2) Washer stage 1 burner, with a maximum heat capacity of 5 MMBtu/hr.
 - (3) Washer stage 3 burner, with a maximum heat capacity of 3.8 MMBtu/hr.

- (e) Powder coat cure oven, identified as GO-3, constructed in 2003, with a maximum heat capacity of 2.0 MMBtu/hr, exhausting at stack (S3).
- (f) Powder coat cure oven, identified as GO-5, constructed in 2003, with a maximum heat input capacity of 4.5 MMBtu/hr, exhausting at stack (S5).
- (g) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour, including:
 - (1) Two (2) gas fired ovens, identified as GO-6 and GO-7, constructed in 2004 and 2003, with a maximum heat input capacity of 0.3 and 0.78 MMBtu/hr, exhausting at stacks (S6 and S7).
 - (2) One (1) gas fired oven lab, identified as GO-8, constructed in 2004, with a maximum heat input capacity of 0.35 MMBtu/hr, exhausting at stack (S8).
 - (3) Four (4) gas fired building heaters, identified as GO-9, GO-10, GO-11, and GO-12, constructed in 1985, each with a maximum heat input capacity of 0.1 MMBtu/hr, exhausting at stacks (S9, S10, S11 and S12).
 - (4) One (1) gas fired office heater, identified as GO-13, constructed in 1985, with a maximum heat input capacity of 0.1 MMBtu/hr, exhausting at stack (S13).
- (h) Two (2) liquid spray paint booths, identified as LB-1 and LB-2, approved for construction in 2008, with a maximum capacity rate of 135 units each of 12" x 24" steel shapes, using one high volume low pressure (HVLP) spray gun per booth when coating and .005 gallons per unit, using dry filters as control, and exhausting to stacks (S14 and S15).
- (i) One (1) gas fired oven, identified as GO-1, approved for construction in 2008, with a maximum heat input capacity of 1.0 MMBtu/hr, exhausting at stack (S1).

SECTION B

GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

Terms in this registration shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-1.1-1) shall prevail.

B.2 Effective Date of Registration [IC 13-15-5-3]

Pursuant to IC 13-15-5-3, this registration is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

B.3 Registration Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation), this registration to operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this registration.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this registration.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this registration shall not require revocation of this registration.
- (d) For any cause which establishes in the judgment of IDEM, the fact that continuance of this registration is not consistent with purposes of this article.

B.4 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to Registration No. 039-27001-00678 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this registration.

B.5 Annual Notification [326 IAC 2-5.1-2(f)(3)] [326 IAC 2-5.5-4(a)(3)]

Pursuant to 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3):

- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this registration.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

- (c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

B.6 Source Modification Requirement [326 IAC 2-5.5-6(a)]

Pursuant to 326 IAC 2-5.5-6(a), 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.

B.7 Registrations [326 IAC 2-5.1-2(i)]

Pursuant to 326 IAC 2-5.1-2(i), this registration does not limit the source's potential to emit.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]

C.1 Opacity [326 IAC 5-1]

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, unless otherwise stated in this registration:

- (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.

C.2 Fugitive Dust Emissions [326 IAC 6-4]

The Registrant 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 (Fugitive Dust Emissions).

SECTION D.1

OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

- (a) Four (4) powder spray coating booths, identified as PB-1, PB-2, PB-3 and PB-4. Each booth is equipped with two (2) high volume low pressure (HVLP) spray guns used to paint various steel and aluminum shapes. The booths were constructed in 2003, each with a maximum capacity of 60 pounds of powder coating and 380 parts per hour. Powders are recycled using a fabric baghouse attached to the spray booth. Fifty percent of the 25% overspray is reused or sprayed again, which is considered to be integral to the process. PB-2 exhausts to stack (S20).
- (b) One (1) powder booth lab, identified as PB-5, constructed in 2004, with a baghouse, exhausting to stack (S21).

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-5.1-2(f)(1)] [326 IAC 2-5.5-4(a)(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the powder coating booths (PB-1, 2, 3 and 4) shall not exceed 0.39 pounds per hour when operating at a process weight rate of 0.03 tons per hour. The pound per hour limitation was calculated with the following equation:

Interpolation 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:

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

The baghouse shall be in operation at all times the powder coating booths are in operation, in order to comply with this limit.

SECTION D.2

OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

- (h) Two (2) liquid spray paint booths, identified as LB-1 and LB-2, approved for construction in 2008, with a maximum capacity rate of 135 units each of 12" x 24" steel shapes, using one high volume low pressure (HVLP) spray gun per booth when coating and .005 gallons per unit, using dry filters as control, and exhausting to stacks (S14 and S15).

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-5.1-2(f)(1)] [326 IAC 2-5.5-4(a)(1)]

D.2.1 Volatile Organic Compound (VOC) [326 IAC 8-2-9]

- (a) Pursuant to 326 IAC 8-2-9, (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating applied to metal components in the spray booths (LB-1 and LB-2) shall be limited to 3.5 pounds of VOCs per gallon of coating, excluding water, as delivered to the applicator.
- (b) Pursuant to 326 IAC 8-2-9(f), all solvents sprayed from application equipment during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.

D.2.2 Particulate Matter (PM) [326 IAC 6-3-2]

Particulate from Paint Booths (LB-1 and LB-2) shall be controlled by a dry particulate filter control system, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

Compliance Determination Requirements [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]

D.2.3 Volatile Organic Compounds

Compliance with the VOC content and usage limitations contained in Condition D.2.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3)(A) using formulation data supplied by the coating manufacturer. However, IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]

D.2.4 Record Keeping Requirements

- (a) To document compliance with Condition D.2.1, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.2.1. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) The VOC content of each coating material and solvent used.
- (2) The amount of coating material and solvent less water used on a monthly basis.
- (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

- (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

**REGISTRATION
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3).

Company Name:	Winona Powder Coating
Address:	800 Summa Drive
City:	Elkhart, Indiana 46516
Phone Number:	574-294-6662
Registration No.:	039-27001-00678

I hereby certify that Winona Powder Coating is :

still in operation.

I hereby certify that Winona Powder Coating is :

no longer in operation.

in compliance with the requirements of Registration No. 039-27001-00678.

not in compliance with the requirements of Registration No. 039-27001-00678.

Authorized Individual (typed):
Title:
Signature:
Phone Number:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Description and Location

Source Name: Winona Powder Coating
Source Location: 800 Summa Drive, Elkhart, Indiana 46516
County: Elkhart
SIC Code: 3479
Registration No.: 039-27001-00678
Permit Reviewer: Janet Mobley

On September 17, 2008, the Office of Air Quality (OAQ) has received an application from Winona Powder Coating related to the construction and operation of new emission units and the continued operation of an existing surface coating operation.

Existing Approvals

There have been no previous approvals issued to this source.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Attainment effective July 19, 2007, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Attainment effective October 18, 2000, for the 1-hour ozone standard for the South Bend-Elkhart area, including Elkhart County, and is a maintenance area for the 1-hour National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour standard was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM2.5.	

(a) Ozone Standards

Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) 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 NO_x emissions are considered when evaluating the rule applicability relating to ozone. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) Elkhart County has been classified as attainment for PM_{2.5}. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM_{2.5} emissions, and the effective date of these rules was July 15th, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions until 326 IAC 2-2 is revised.

- (c) Other Criteria Pollutants
Elkhart County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-5.1-2 (Registrations) applicability.

Background and Description of Emission Units and Pollution Control Equipment

The Office of Air Quality (OAQ) has reviewed an application, submitted by Winona Powder Coating on September 17, 2008, relating to a surface coating operation of metal products using powder coating and liquid painting.

The source consists of the following existing emission units:

- (a) Four (4) powder spray coating booths, identified as PB-1, PB-2, PB-3 and PB-4. Each booth is equipped with two (2) high volume low pressure (HVLP) spray guns used to paint various steel and aluminum shapes. The booths were constructed in 2003, each with a maximum capacity of 60 pounds of powder coating and 380 parts per hour. Powders are recycled using a fabric baghouse attached to the spray booth. Fifty percent of the 25% overspray is reused or sprayed again, which is considered to be integral to the process. PB-2 exhausts to stack (S20).
- (b) One (1) powder booth lab, identified as PB-5, constructed in 2004, with a baghouse, exhausting to stack (S21).
- (c) One (1) pretreat washer, identified as PW-1, constructed in 2003, and containing the following natural gas-fired heating units:
- (1) Washer stage dry off oven, identified as GO-2, constructed in 2003, having a maximum heat input capacity of 1.5 MMBtu/hr, and exhausting to stack (S2).
 - (2) Washer stage 1 burner, with a maximum heat capacity of 2.5 MMBtu/hr.
 - (3) Washer stage 2 burner, with a maximum heat capacity of 1.5 MMBtu/hr.
- (d) One (1) pretreat washer, identified as PW-2, constructed in 2003, and containing the following natural gas-fired heating units:
- (1) Washer stage dry off oven, identified as GO-4, constructed in 2003, having a maximum heat input capacity of 4.5 MMBtu/hr, and exhausting to stack (S4).
 - (2) Washer stage 1 burner, with a maximum heat capacity of 5 MMBtu/hr.
 - (3) Washer stage 3 burner, with a maximum heat capacity of 3.8 MMBtu/hr.
- (e) Powder coat cure oven, identified as GO-3, constructed in 2003, with a maximum heat capacity of 2.0 MMBtu/hr, exhausting at stack (S3).
- (f) Powder coat cure oven, identified as GO-5, constructed in 2003, with a maximum heat input capacity of 4.5 MMBtu/hr, exhausting at stack (S5).

- (g) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour, including:
- (1) Two (2) gas fired ovens, identified as GO-6 and GO-7, constructed in 2004 and 2003, with a maximum heat input capacity of 0.3 and 0.78 MMBtu/hr, exhausting at stacks (S6 and S7).
 - (2) One (1) gas fired oven lab, identified as GO-8, constructed in 2004, with a maximum heat input capacity of 0.35 MMBtu/hr, exhausting at stack (S8).
 - (3) Four (4) gas fired building heaters, identified as GO-9, GO-10, GO-11, and GO-12, constructed in 1985, each with a maximum heat input capacity of 0.1 MMBtu/hr, exhausting at stacks (S9, S10, S11 and S12).
 - (4) One (1) gas fired office heater, identified as GO-13, constructed in 1985, with a maximum heat input capacity of 0.1 MMBtu/hr, exhausting at stack (S13).

The following is a list of the new emission units and pollution control devices:

- (h) Two (2) liquid spray paint booths, identified as LB-1 and LB-2, approved for construction in 2008, with a maximum capacity rate of 135 units each of 12" x 24" steel shapes, using one high volume low pressure (HVLV) spray gun per booth when coating and .005 gallons per unit, using dry filters as control, and exhausting to stacks (S14 and S15).
- (i) One (1) gas fired oven, identified as GO-1, approved for construction in 2008, with a maximum heat input capacity of 1.0 MMBtu/hr, exhausting at stack (S1).

“Integral Part of the Process” Determination

The source has submitted the following information to justify that the baghouse should be considered an integral part of the powder coating process:

The powder booth system collects the powder in a fabric baghouse that is attached to the spray booth and half of the 25% overspray is reused or sprayed again. The company must recover the powder to keep material usage costs down.

IDEM, OAQ has evaluated the information submitted and agrees that the baghouse should be considered an integral part of the powder coating process. This determination is based on the fact that the powder coating system is designed to operate with the baghouse as an integral part of the process and without the powder recovery system the amount of powder lost during the process would make this coating method prohibitively expensive. Therefore, the permitting level will be determined using the potential to emit after the baghouse. Operating conditions in the proposed permit will specify that this baghouse shall operate at all times when the (process) is in operation.

Enforcement Issues

There are no pending enforcement actions related to this source.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – Registration

The following table reflects the unlimited potential to emit (PTE) of the entire source before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/ Emission Unit	Potential To Emit of the Entire Source (tons/year)								
	PM	PM10 *	PM2.5	SO ₂	NO _x	VOC	CO	Total HAPs	Worst Single HAP
Powder Coating Booths (PB1 - PB5)	2.68	2.68	2.68	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas Combustion Units and Pretreat Washers (GO-1 - GO 13 and PW 1 & 2)	0.20	0.90	0.90	0.10	12.40	0.70	10.40	0.00	0.00
Liquid Spray Booths (LB1 and LB2)	9.76	9.76	9.76	0.00	0.00	20.66	0.00	0.00	Xylene 5.41 Total 12.02
Total PTE of Entire Source	12.64	13.34	13.34	0.10	12.40	21.36	10.40	<25	<10
Registration Levels	25	25	25	25	25	25	100	25	10
negl. = negligible * Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".									

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of *(pollutant(s))* are within the ranges listed in 326 IAC 2-5.1-2(a)(1). The PTE of all other regulated criteria pollutants are less than the ranges listed in 326 IAC 2-5.1-2(a)(1). Therefore, the source is subject to the provisions of 326 IAC 2-5.1-2 (Registrations). A Registration will be issued.
- (b) The potential to emit (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, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

There are no New Source Performance Standards (NSPS)(40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

Compliance Assurance Monitoring (CAM)

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability Determination

The following state rules are applicable to the source:

- (a) 326 IAC 2-5.1-2 (Registrations)
Registration applicability is discussed under the Permit Level Determination – Registration section above.
- (b) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
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. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.
- (c) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (d) 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:
 - (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.
- (e) 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.
- (f) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
The source is not subject to the requirements of 326 IAC 6-5, because the source does not have potential fugitive particulate emissions greater than 25 tons per year. Therefore, 326 IAC 6-5 does not apply.

State Rule Applicability - Powder Coating Booth Operation

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the powder coating booths (PB-1, 2, 3

and 4) shall not exceed 0.39 pounds per hour when operating at a process weight rate of 0.03 tons per hour. The pound per hour limitation was calculated with the following equation: Interpolation 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:

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

The baghouse shall be in operation at all times the powder coating booths are in operation, in order to comply with this limit.

326 IAC 8 (Volatile Organic Compounds)

Since no volatile organic compounds are used or produced during the powder coating operation the powder coating booths are not subject to 326 IAC 8.

State Rule Applicability - Liquid Painting Booth Operation

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

The operation of this new coating and finishing plant 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. The Permittee shall obtain approval from IDEM, OAQ prior to making any modifications to the source that would increase the potential to emit any single HAP to greater than ten (10) tons per year or the potential to emit any combination of HAPs to greater than twenty-five (25) tons per year.

326 IAC 8-1-6 (New Facilities - General Reduction Requirement)

This source is not subject to the provisions of 326 IAC 8-1-6 (New Facilities - General Reduction Requirements), because 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) is applicable.

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

Pursuant to 326 IAC 6-3-2(d) (Particulate Emission Limitations for Manufacturing Processes), particulate from Paint Booths (LB-1 and LB-2) shall be controlled by a dry particulate filter control system, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

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

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicators at spray booths 1, 2, 3, 4 and 5 shall be limited to 3.5 pounds of VOCs per gallon of coating less water.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

These emission units are subject to 326 IAC 8-2-9 because the potential to emit VOC is greater than 15 pounds per day.

Based on calculations made, the spray booths will be in compliance with this requirement.

Conclusion and Recommendation

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 September 17, 2008.

The construction and operation of this source shall be subject to the conditions of the attached proposed Registration No. 039-27001-00678. The staff recommends to the Commissioner that this Registration be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Janet Mobley at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317)234-5373 or toll free at 1-800-451-6027 extension 4-5373.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Summary Emissions

Company Name: Winona Powder Coating
 Address: 800 Summa Drive, Elkhart, Indiana
 Permit Number: 039-27001-00678
 Reviewer: Janet Mobley
 Date: September 23, 2008

POTENTIAL TO EMIT BEFORE CONTROLS

Emission Units	PM	PM10	PM 2.5	SO2	NOx	VOC	CO	HAPs
Powder Coating booths (PB-1 through BP-5)	268.33	268.33	268.33	0.00	0.00	0.00	0.00	
Natural Gas Combustion Units (GO1-13 & PW 1 & 2)	0.20	0.90	0.90	0.10	12.40	0.70	10.40	
Liquid Spray Booths (LB-1 and LB-2)	9.76	9.76	9.76	0.00	0.00	20.66	0.00	Single HAPS Xylene 5.41
								Total HAPS 12.02
TOTAL	278.29	278.99	278.99	0.10	12.40	21.36	10.40	<10/25

POTENTIAL TO EMIT AFTER CONTROLS

Emission Units	PM	PM10	PM 2.5	SO2	NOx	VOC	CO	HAPs
Powder Coating Booths (PB-1 through PB-5)	* 2.68	* 2.68	2.68	0.00	0.00	0.00	0.00	
Natural Gas Combustion Units (GO1-13 & PW 1 & 2)	0.20	0.90	0.90	0.10	12.40	0.70	10.40	
Liquid Paint Booths (LB-1 & LB-2)	9.76	9.76	9.76	0.00	0.00	20.66	0.00	Single HAPS Xylene 5.41
								Total HAPS 12.02
TOTAL	12.64	13.34	13.34	0.10	12.40	21.36	10.40	<10/25

* The PTE is based on the PTE After Control because the baghouse is considered an integral part of the powder coating operation.

Appendix A: Emissions Calculations

PM AND PM 10

From Powder Coating Operations

PB-1 through PB-5

Company Name: Winona Powder Coating

Address City IN Zip: 800 Summa Drive, Elkhart, Indiana 46516

Permit Number: M039-27001-00678

Reviewer: Janet Mobley

Date: September 22, 2008

Process and Emission ID	Coating Density (Lb/Gal)	Max Usage Rate (gal/unit)	Maximum (unit/hour)	Coating Usage	Transfer Efficiency	Solids Content (%)	Process Control Efficiency (%)	PTE OF PM/PM10 (tons/year) Before Control	PTE OF PM/PM10 (tons/year) After Control *
Powder Coating PB-1	13.6	0.012	380	60.00	75%	100.00%	99.99	65.70	0.6570
Powder Coating PB-2	13.6	0.012	380	60.00	75%	100.00%	99.99	65.70	0.6570
Powder Coating PB-3	13.6	0.012	380	60.00	75%	100.00%	99.99	65.70	0.6570
Powder Coating PB-4	13.6	0.012	380	60.00	75%	100.00%	99.99	65.70	0.6570
Powder Coating PB-5	13.6	0.012	32	5.05	75%	100.00%	99.99	5.53	0.0553
TOTAL								268.33	2.68

The powders are collected by the filter and recycled to the process
 Transfer efficiency for coating flat surface using electrostatic air atomized (AP-40, PAGES 859-861).

METHODOLOGY

PTE OF PM/PM10 (tons/year) after integral controls = coating usage (lb/hr) * 8760 hr/yr * 1/2000 ton/lb * transfer efficiency (%) * solids content (%) * Process Control Efficiency (%)

* The baghouse is considered an integral part of the powder coating operation.

**Appendix A: Emissions Calculations
Natural Gas Units**

Company Name: Winona Powder Coating
Address City IN Zip: 800 Summa Drive, Elkhart, Indiana 46516
Permit Number: M039-27001-00678
Reviewer: Janet Mobley
Date: September 22, 2008

Heat Input Capacity MMBtu/hr

Potential Throughput MMCF/yr

28.23

247.3

	Pollutant					
Emission Factor in lb/MMCF	PM*	PM10*	SO2	NOx 100 **see below	VOC	CO
	1.9	7.6	0.6		5.5	84
Potential Emission in tons/yr	0.20	0.90	0.10	12.40	0.70	10.40

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

**Emission Factors for NOx: Uncontrolled = 280 (pre-NSPS) or 190 (post-NSPS), Low NOx Burner = 140, Flue gas recirculation = 100 (See Table 1.4-1)

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 #1-01-006-01, 1-01-006-04
 (AP-42 Supplement D 3/98)

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

Note to Reviewer: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
 See page 4 for HAPs emissions calculations.

**Appendix A: Emission Calculations
Natural Gas Combustion Units
HAPs Emissions**

Company Name: Winona Powder Coating
Address City IN Zip: 800 Summa Drive, Elkhart, Indiana 46516
Permit Number: M039-27001-00678
Reviewer: Janet Mobley
Date: September 22, 2008

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.10E-03	1.20E-03	7.50E-02	1.80E+00	3.40E-03
Potential Emission in tons/yr	2.60E-04	1.48E-04	9.27E-03	2.23E-01	4.20E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.00E-04	1.10E-03	1.40E-03	3.80E-04	2.10E-03
Potential Emission in tons/yr	6.18E-05	1.36E-04	1.73E-04	4.70E-05	2.60E-04

Methodology is the same as page 3.

**Appendix A: Emissions Calculations
VOC and Particulate**

**From Surface Coating Operations
(LB-1 AND LB-2)**

**Company Name: Winona Powder Coating
Address City IN Zip: 800 Summa Drive, Elkhart, Indiana 46516
Permit Number: M039-27001-00678
Reviewer: Janet Mobley
Date: September 22, 2008**

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 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
MIL-DTL-530398	10.1	34.60%	0.0%	34.6%	0.0%	53.00%	0.00500	135.000	3.49	3.49	2.36	56.61	10.33	4.88	6.59	75%
MIL-DTL-530398	10.1	34.60%	0.0%	34.6%	0.0%	53.00%	0.00500	135.000	3.49	3.49	2.36	56.61	10.33	4.88	6.59	75%

Potential Emissions Add worst case coating to all solvents **4.72 113.23 20.66 9.76**

Solvent used will be methyl acetate. Can be used up to 10% by volume and not effect VOC content

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

Transfer efficiency was estimated at 75% for flat surface work and HVLP air atomized, per "Air Pollution Engineering Manual" (AP-40), Table 2, page 362, 1992 edition

Appendix A: Emission Calculation:
HAP Emission Calculations
UNITS LB-1 & LB-2
Company Name: Winona Powder Coating
Address City IN Zip: 800 Summa Drive, Elkhart, Indiana 46516
Permit Number: 039-27001-00678
Reviewer: Janet Mobley
Date: September 22, 2008

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % EthylBenzene	Weight % Methyl Isobutyle Ketone (MIK)	PTE Xylene Emissions (ton/yr)	PTE Toluene Emissions (ton/yr)	PTE EthylBenzene Emissions (ton/yr)	PTE Methyl Isobutyl Ketone (MIK) Emissions (ton/yr)
MYL-DTL-53039B LB-1	10.11	0.005	135	9.00%	4.00%	2.00%	5.00%	2.69	1.2	0.6	1.49
MYL-DTL-53039B LB-2	10.22	0.005	135	9.00%	4.00%	2.00%	5.00%	2.72	1.21	0.6	1.51

Total Potential Emissions

5.41

2.4

1.2

3.01

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