



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: September 8, 2008

RE: Martinrea Industries, Inc. / 079-26727-00012

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

**Martinrea Industries, Inc.
505 Industrial Drive,
North Vernon, Indiana 47265**

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. 079-26727-00012	
Issued by/Original Signed By: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: September 8, 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 stainless steel and non-stainless steel automotive fuel tank fill pipe manufacturing source.

Source Address:	505 Industrial Drive, North Vernon, Indiana 47265
Mailing Address:	PO Box 927, North Vernon, IN 47265
General Source Phone Number:	(812) 346-5750
SIC Code:	3714
County Location:	Jennings 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) Surface Coating Operations for dip coating of the non-stainless steel automotive fuel tank fill pipe assemblies, approved for construction in 2008, with a maximum capacity of 405 units per hour, including;
 - (1) One (1) Dip-Spin Coating Line, identified as 700 Coating, including a dip-spin coating tank, spin-off drum and bake-off oven, uncontrolled and exhausting to the indoors except for the oven emissions which exhaust to stack CS4; and
 - (2) One (1) Phosphating/Cleaning Line, identified as 700 Clean, uncontrolled and exhausting to stacks CS2, and consisting of the following steps (all in dip tanks);
 - (1) Water Rinse;
 - (2) Cleaning (Parco Cleaner 472, non-VOC);
 - (3) Water Rinse;
 - (4) Water Rinse;
 - (5) Phosphating (Bonderite 7400)
 - (6) Drying in the dry-off oven
- (b) Welding Operations, for fabrication of stainless steel and non-stainless steel automotive fuel tank fill pipe assemblies, identified as Welding, approved for construction in 2008, using less than six hundred and twenty-five (625) pounds of wire or rod per day, uncontrolled and exhausting to the indoors;
 - (1) Fifteen (15) Metal Inert Gas (MIG) welding stations with a maximum hourly electrode consumption of one hundred sixteen thousandths (0.116) pounds per hour per station;
- (c) Natural gas-fired combustion sources approved for construction in 2008, with heat input equal to or less than ten (10) million Btu per hour, each, as follows;
 - (1) One (1) Hot Water Heater, identified as 700HW, with a maximum heat input capacity of one and sixty-five hundredths (1.65) million British Thermal Units per hour (MMBTU/hr), uncontrolled and exhausting to stack CS1;

- (2) One (1) Dry-off Oven, identified as 700DO, with a maximum heat input capacity of thirty-six hundredths (0.36) MMBTU/hr, uncontrolled and exhausting to stack CS3;
- (3) One (1) 2 - Zone Curing Oven, identified as 700CO, with a maximum heat input capacity of two (2.00) MMBTU/hr, uncontrolled and exhausting to stack CS4;
- (4) Two (2) air make up units, identified as MU1 and MU2, with a maximum heat input capacity of four (4.00) MMBTU/hr, each, uncontrolled and exhausting to the indoors;
- (5) One (1) air make up unit, identified as MU3, with a maximum heat input capacity of three (3.00) MMBTU/hr, uncontrolled and exhausting to the indoors; and
- (6) Three (3) air space heaters, identified as SH1 through SH3, with a maximum heat input capacity of forty hundredths (0.40) MMBTU/hr, each, uncontrolled and exhausting to the indoors.

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. 079-26727-00012 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)]: Surface Coating Operations

- (a) Surface Coating Operations for dip coating of the non-stainless steel automotive fuel tank fill pipe assemblies, approved for construction in 2008, with a maximum capacity of 405 units per hour, including;
- (1) One (1) Dip-Spin Coating Line, identified as 700 Coating, including a dip-spin coating tank, spin-off drum and bake-off oven, uncontrolled and exhausting to the indoors except for the oven emissions which exhaust to stack CS4; and
 - (2) One (1) Phosphating/Cleaning Line, identified as 700 Clean, uncontrolled and exhausting to stacks CS2, and consisting of the following steps (all in dip tanks);
 - (1) Water Rinse;
 - (2) Cleaning (Parco Cleaner 472, non-VOC);
 - (3) Water Rinse;
 - (4) Water Rinse;
 - (5) Phosphating (Bonderite 7400)
 - (6) Drying in the dry-off oven

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

- (a) Pursuant to 326 IAC 8-2-9, the Permittee shall not allow the discharge into the atmosphere VOC in excess of three (3.0) pounds of VOC 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.

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

D.1.2 Volatile Organic Compounds

Compliance with the VOC content and usage limitations contained in Condition D.1.1 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.1.3 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1, 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.1.1. 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:	Martinrea Industries, Inc.
Address:	505 Industrial Drive
City:	North Vernon, Indiana 47265
Phone Number:	(812) 346-5750
Registration No.:	079-26727-00012

I hereby certify that Martinrea Industries, Inc. is :

still in operation.

I hereby certify that Martinrea Industries, Inc. is :

no longer in operation.

in compliance with the requirements of Registration No. 079-26727-00012.

not in compliance with the requirements of Registration No. 079-26727-00012.

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: Martinrea Industries, Inc.
Source Location: 505 Industrial Drive, North Vernon, Indiana 47265
County: Jennings
SIC Code: 3714
Registration No.: 079-26727-00012
Permit Reviewer: Hannah L. Desrosiers

On July 8, 2008, the Office of Air Quality (OAQ) has received an application from Martinrea Industries, Inc. relating to the reconstruction and operation of an existing, exempt, stainless steel and non-stainless steel automotive fuel tank fill pipe manufacturing operation. The source requests a Registration be issued, to allow for operational flexibility and future growth.

Existing Approvals

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

- (a) Exemption No. 079-17653-00012, issued on May 29, 2003.
- (b) Exemption No. 079-13546-00012, issued on January, 31, 2001.
- (c) CP - Registration No. 079-9649-00012, issued on May 12, 1998.
- (d) SSOA No. 079-6703-00012, issued on November 27, 1996.

Due to this application, the source is transitioning from an Exemption to a Registration.

County Attainment Status

The source is located in Jennings County.

Pursuant to 326 IAC 326 IAC 1-4-41, the following attainment status designations are applicable to Jennings County:

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective June 15, 2004, 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.

¹Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which 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. Jennings 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) PM_{2.5}
Jennings 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
Jennings County has been classified as attainment or unclassifiable in Indiana for all remaining 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 Martinrea Industries, Inc. on July 8, 2008, relating to the reconstruction and operation of their existing, exempt, non-stainless steel automotive fuel tank fill pipe surface coating operations.

The following is a list of the modified, and new, emission unit(s) and pollution control device(s):

- (a) Surface Coating Operations for dip coating of the non-stainless steel automotive fuel tank fill pipe assemblies, approved for construction in 2008, with a maximum capacity of 405 units per hour, including;
- (1) One (1) Dip-Spin Coating Line, identified as 700 Coating, including a dip-spin coating tank, spin-off drum and bake-off oven, uncontrolled and exhausting to the indoors except for the oven emissions which exhaust to stack CS4; and
 - (2) One (1) Phosphating/Cleaning Line, identified as 700 Clean, uncontrolled and exhausting to stacks CS2, and consisting of the following steps (all in dip tanks);
 - (1) Water Rinse;
 - (2) Cleaning (Parco Cleaner 472, non-VOC);
 - (3) Water Rinse;
 - (4) Water Rinse;
 - (5) Phosphating (Bonderite 7400)
 - (6) Drying in the dry-off oven
- (b) Welding Operations, for fabrication of stainless steel and non-stainless steel automotive fuel tank fill pipe assemblies, identified as Welding, approved for construction in 2008, using less than six hundred and twenty-five (625) pounds of wire or rod per day, uncontrolled and exhausting to the indoors;

- (1) Fifteen (15) Metal Inert Gas (MIG) welding stations with a maximum hourly electrode consumption of one hundred sixteen thousandths (0.116) pounds per hour per station;
- (c) Natural gas-fired combustion sources approved for construction in 2008, with heat input equal to or less than ten (10) million Btu per hour, each, as follows:
 - (1) One (1) Hot Water Heater, identified as 700HW, with a maximum heat input capacity of one and sixty-five hundredths (1.65) million British Thermal Units per hour (MMBTU/hr), uncontrolled and exhausting to stack CS1;
 - (2) One (1) Dry-off Oven, identified as 700DO, with a maximum heat input capacity of thirty-six hundredths (0.36) MMBTU/hr, uncontrolled and exhausting to stack CS3;
 - (3) One (1) 2 - Zone Curing Oven, identified as 700CO, with a maximum heat input capacity of two (2.00) MMBTU/hr, uncontrolled and exhausting to stack CS4;
 - (4) Two (2) air make up units, identified as MU1 and MU2, with a maximum heat input capacity of four (4.00) MMBTU/hr, each, uncontrolled and exhausting to the indoors;
 - (5) One (1) air make up unit, identified as MU3, with a maximum heat input capacity of three (3.00) MMBTU/hr, uncontrolled and exhausting to the indoors; and
 - (6) Three (3) air space heaters, identified as SH1 through SH3, with a maximum heat input capacity of forty hundredths (0.40) MMBTU/hr, each, uncontrolled and exhausting to the indoors.

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
Surface Coating Operations	0.61	0.61	0.61	0	0	7.06	0	0.51	0.44 Manganese
Welding	0.04	0.04	0.04	0	0	0	0	0.004	0.004 Manganese
Natural Gas Combustion	0.54	0.54	0.40	0.04	7.10	0.39	5.96	0.134	0.128 Hexane
Total PTE of Entire Source	1.19	1.19	1.05	0.04	7.10	7.45	5.96	0.65	0.45 Manganese
Exemptions Levels	5	5	5	10	10	10	25	25	10
Registration Levels	25	25	25	25	25	25	100	25	10

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
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". Additionally, US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.									

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of all regulated criteria pollutants are less than the levels listed in 326 IAC 2-1.1-3(e)(1). Consequently, the source is subject to the provisions of 326 IAC 2-1.1-3 (Exemptions). However, the source requests a Registration be issued to allow for operational flexibility and future growth. Therefore, 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)

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

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (a) 40 CFR 63 Subpart M - NESHAPs for Miscellaneous Metal Parts and Products Surface Coating
 Pursuant to 40 CFR 63.3881, this rule applies to sources that own or operate a new, reconstructed, or existing affected source, as defined in §63.3882, that uses 946 liters (250 gallons (gal)) per year, or more, of coatings that contain hazardous air pollutants (HAP) in the surface coating of miscellaneous metal parts and products defined in 63.3881 (a); and that is a major source, is located at a major source, or is part of a major source of emissions of HAP, as defined in 40 CFR 63.2. The potential HAP emissions from this existing stationary stainless steel and non-stainless steel automotive fuel tank fill pipe manufacturing source are less than the Title V Major Source thresholds of ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, the National Emission Standards for Hazardous Air Pollutants (NESHAPs): Miscellaneous Metal Parts and Products Surface Coating, 40 CFR 63 Subpart M, do not apply to this source, and the requirements are not included in the in the permit.
- (b) 40 CFR 63, Subpart H - NESHAP Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources
 Pursuant to 40 CFR 63.11170, this rule applies to area sources of HAP as defined in paragraph 63.11170(b), including sources that are part of a tribal, local, State, or Federal facility, who perform the following; paint stripping using MeCl (Methylene Chloride) for the removal of dried paint (including, but not limited to, paint, enamel, varnish, shellac, and lacquer) from wood, metal, plastic, and other substrates, and/or spray application of coatings, as defined in §63.11180, to motor vehicles and mobile equipment including operations that are located in stationary structures at fixed locations, and mobile repair and refinishing operations that travel to the customer's location, except spray coating applications that meet the definition of facility maintenance in §63.11180, using coatings that contain target HAPs, as defined in §63.11180, to a plastic and/or metal substrate on a part or product, except spray coating applications that meet the definition of facility maintenance or space vehicle in §63.11180. While this source meets the definition of an area source, as defined in 40 CFR § 63.2, the surface coating operations performed at this source are not of a type as described. Additionally, the coatings used at this source do not contain any target HAPs as defined in § 63.11180. Therefore, the National Emission Standards for Hazardous Air Pollutants (NESHAPs): Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, 40 CFR 63, Subpart H, do not apply to this source, and the requirements are not included in the in the permit.

- (c) 40 CFR 63 Subpart T - NESHAP for Halogenated Solvent Cleaning
Pursuant to 40 CFR 63.460, this rule applies to each individual batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machine that uses any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than five (5) percent by weight, as a cleaning and/or drying agent. This source does not use a cold solvent cleaning machine of a type listed, or any degreasing solvent that contains any of the listed halogenated compounds. Therefore, the National Emission Standards for Hazardous Air Pollutants (NESHAPs) Halogenated Solvent Cleaning, 40 CFR 63 Subpart T, do not apply to this source, and the requirements are not included in the in the permit.
- (d) There are no other 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)

- (a) 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:

Entire Source

- (a) 326 IAC 2-5.1-2 (Registrations)
Registration applicability is discussed under the Permit Level Determination – Registration section above.
- (b) 326 IAC 2-2 (Prevention of Significant Deterioration (PSD))
The requirements of this rule apply to the construction of any new major stationary source, as defined in §2-2-1(gg), or any project at an existing major stationary source in an area designated as attainment or unclassifiable in 326 IAC 1-4 (Nonattainment/Attainment/Unclassifiable Area Designations for Sulfur Dioxide, Total Suspended Particulates, Carbon Monoxide, Ozone, and Nitrogen Dioxides). This existing source is located in Attainment/Unclassifiable Area for all criteria pollutants, however, it does not meet the definition of a major stationary source under PSD (326 IAC 2-2), because no regulated pollutant is emitted at a rate of two hundred fifty (250) tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1). Therefore, the requirements of 326 IAC 2-2 PSD do not apply to this source, and are not included in the permit.
- (c) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
Pursuant to 326 IAC 2-4.1-1, this rule applies to any owner or operator who constructs or reconstructs a major source of hazardous air pollutants (HAP), as defined in 40 CFR 63.41*, after July 27, 1997. 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.
- (d) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1(a), this rule applies to any source required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, and/or any source located in Lake, Porter, or LaPorte counties that emit volatile organic compounds (VOC) or oxides of nitrogen (NOx) into the ambient air at levels equal to or greater than twenty-five (25) tons per year, and/or any source that emits lead into the ambient air at levels equal to or greater than five (5) tons per year. Additionally, pursuant to 326

IAC 2-6-1(b), all sources permitted by the department are subject to section 5 of this rule, additional information requests. This source is not required to have an operating permit under 326 IAC 2-7 (Part 70), 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, this source is only subject to the provisions of 326 IAC 2-6-5 (Additional information requests).

(e) 326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-1, this rule applies to opacity, not including condensed water vapor, emitted by or from a facility or source, located anywhere in the state. Section 2(1) of this rule applies to sources or facilities located in areas not otherwise listed in section (1)(c). Therefore, 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.

(f) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)

Pursuant to 326 IAC 6-4-1, this rule applies to all sources of fugitive dust; i.e., the generation of particulate matter to the extent that some portion of the material escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located. Therefore, 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.

(g) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

Pursuant to 326 IAC 6-5-1, this rule applies to all sources of fugitive particulate matter emissions located in nonattainment areas for particulate matter as designated by the board (except for such a source located in Lake County); including portions of Clark, Dubois, Marion, St. Joseph, Vanderburgh, and Vigo Counties, which have potential fugitive particulate matter emissions of twenty-five (25) tons per year or more. This existing source is located in Jennings County, and its potential fugitive particulate emissions are less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 6-5 Fugitive Particulate Matter Emission Limitations do not apply to this source, and are not included in the permit.

(h) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)

Pursuant to 326 IAC 8-1-6, new facilities located anywhere in the state are subject only if they have potential emissions of 25 tons of VOC or more per year, or are not otherwise regulated by other provisions of Article 8. The unlimited potential VOC emissions from each emission unit at this existing source is less than twenty-five (25) tons per year. Additionally, the surface coating operations are otherwise subject to 326 IAC 8-2-9 (Miscellaneous Metal Coating). Therefore, the requirements of 326 IAC 8-1-6 General Reduction Requirements do not apply to any of the emission units at this source, and are not included in the permit.

(i) 326 IAC 12-1 (New Source Performance Standards)

Pursuant to 326 IAC 12-1-1, this article applies to the owner or operator of any stationary source and incorporates by reference 40 CFR 60 New Source Performance Standards. If the emission limitations contained in this article conflict with or are inconsistent with any other emission limitations established by this title, then the more stringent limitation shall apply.

(1) There are no New Source Performance Standards (NSPS)(40 CFR Part 60) included in the permit. See the "Federal Rule Applicability" section of this TSD

(j) 326 IAC 20 (Hazardous Air Pollutants)

Pursuant to 326 IAC 20-1-1, this article applies to any source, or facility anywhere in the state, for which a standard is prescribed under this article unless otherwise specified in individual standards, and incorporates by reference National Emissions Standards for Hazardous Air Pollutants 40 CFR 63 Subpart A* General Provisions. If the emission limitations contained in this article conflict with or are inconsistent with any other emission limitations established by this title, then the more stringent limitation shall apply.

- (1) 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. See the "Federal Rule Applicability" section of this TSD.

Surface Coating

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

Pursuant to 326 IAC 6-3-1(a), particulate emissions from manufacturing processes, located anywhere in the state, unless specifically exempted by § 6-3-1(b) shall follow the work practices and control technologies contained in § 6-3-2, subsections (b) through (d), or be limited according to § 6-3-2(e), as applicable.

Pursuant to 326 IAC 6-3-1(b)(5), surface coating operations using dip coating are specifically exempted from the rule.

This source performs dip coating of non-stainless steel automotive fuel tank fill pipe assemblies. Therefore, the requirements of 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) do not apply to the surface coating operations at this source, and are not included in the permit.

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

Pursuant to 326 IAC 8-2-1(a)(4) and § 8-2-9(a)(5), affected facilities include any industrial category which coats metal parts or products under the Standard Industrial Classification Code of major group 35: Industrial And Commercial Machinery And Computer Equipment, constructed after July 1, 1990, located in any county, and which have actual emissions of greater than fifteen (15) pounds of VOCs per day before add-on controls.

- (1) The Dip-Spin Coating Line, approved for reconstruction in 2008, after the rule applicability date of July 1, 1990, applies coatings to non-stainless steel automotive fuel tank fill pipe assemblies, SIC Code 3714: Motor Vehicle Parts and Accessories, and has actual VOC emissions of less than fifteen (15) pounds per day. Therefore, the requirements of 326 IAC 8-2-9 Miscellaneous Metal Coating do not apply to this facility.

However in the interest of retaining operational flexibility, and to allow for future growth, the source has requested the applicable requirements be included in the permit for this facility.

- (A) Pursuant to 326 IAC 8-2-9(d)(4), the volatile organic compound (VOC) content of the coating utilized in the Dip-Spin Coating Line shall be limited to 3.0 pounds of VOCs per gallon of coating less water, for all coatings and coating application systems not specifically addressed by §8-2-9(d)(1) through §8-2-9(d)(3).

Based on the MSDS submitted by the source and calculations made, the dip coating operations can comply with this requirement.

- (B) 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.

- (2) The Phosphating/Cleaning Line, approved for construction in 2008, will utilize aqueous solvents, which are not considered surface coatings (as defined in 326 IAC 8-1-0.5(c)), is approved for construction after the rule applicability date of July 1, 1990, and will have actual VOC emissions less than fifteen (15) pounds per day before add-on controls. Therefore, the requirements of 326 IAC 8-2-9 Miscellaneous Metal Coating do not apply to this facility and are not included in the permit.
- (c) 326 IAC 8-3 (Organic Solvent Degreasing Operations)
Pursuant to 326 IAC 8-3-1(a)(2), the requirements of 326 IAC 8-3-2 (Cold Cleaner Operations) apply to all new facilities constructed after January 1, 1980, that utilize organic materials (solvents) containing volatile organic compounds (VOCs) (as defined by 326 IAC 1-2-90), which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents, unless otherwise exempted.

Pursuant to 326 IAC 2-1.1-3(e)(13)(D) (Exemptions for Water Based Activities), any operation using aqueous solutions containing less than or equal to one percent (1%) by weight of VOCs excluding HAPs as defined under Section 112(b) of the Clean Air Act, are specifically exempted activities.

The Phosphating/Cleaning Line uses aqueous solutions containing less than or equal to one percent (1%) by weight of VOCs excluding HAPs, therefore, the requirements of 326 IAC 8-3 do not apply to this facility and are not included in the permit.

Welding

- (a) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(a), particulate emissions from manufacturing processes, located anywhere in the state, unless specifically exempted by § 6-3-1(b) shall follow the work practices and control technologies contained in § 6-3-2, subsections (b) through (d), or be limited according to § 6-3-2(e), as applicable.

Pursuant to 326 IAC 6-3-1(b)(9), welding operations that consume less than six hundred twenty-five (625) pounds of rod or wire per day, are specifically exempted from the rule.

The welding operations, conducted at the source, consume less than six hundred twenty-five (625) pounds of rod or wire per day. Therefore, the requirements of 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) do not apply to the welding operations at this source, and are not included in the permit.

Natural Gas Combustion

- (a) 326 IAC 4-2-2 (Incinerators)
Pursuant to 326 IAC 6-3-1(a), affected facilities include incinerators which emit regulated pollutants located anywhere in the state. The hot water heater, dry-off oven, 2 - zone curing oven, air make up units, and air space heaters, are each not incinerators, as defined by 326 IAC 1-2-34, since they do not burn waste substances. Therefore, 326 IAC 4-2-2 does not apply to the hot water heater, dry-off oven, 2 - zone curing oven, air make up units, and air space heaters, and the requirements are not included in the permit.
- (b) 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)
Pursuant to 326 IAC 6-2-1(a), particulate emissions from combustion of fuel for indirect heating from all facilities located in Lake, Porter, Marion, Boone, Hamilton, Hendricks, Johnson, Morgan, Shelby, and Hancock Counties, which were existing and in operation or which received permit to construct prior to September 21, 1983, shall be limited according to § 6-2-2. The hot water heater, dry-off oven, 2 - zone curing oven, air make up units, and air space heaters, are each not sources of indirect

heating, as defined in 326 IAC 1-2-19 "Combustion for indirect heating". Therefore, 326 IAC 6-2-2 still does not apply to the hot water heater, dry-off oven, 2 - zone curing oven, air make up units, and air space heaters, and the requirements are not included in the permit.

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

Pursuant to 326 IAC 6-3-1(a), particulate emissions from manufacturing processes, located anywhere in the state, unless specifically exempted by § 6-3-1(b) shall follow the work practices and control technologies contained in § 6-3-2, subsections (b) through (d), or be limited according to § 6-3-2(e), as applicable.

Pursuant to 326 IAC 6-3-1(a), activities that do not meet the definition of a "manufacturing process", as defined in 326 IAC 6-3-1.5(2), are exempted from 326 IAC 6-3.

The hot water heater, dry-off oven, 2 - zone curing oven, air make up units, and air space heaters, each do not meet the definition of a "manufacturing process", and are therefore each exempt from the requirements of 326 IAC 6-3. Consequently, the requirements are not included in the permit.

(d) 326 IAC 7-1.1 (Sulfur Dioxide Emissions Limitations)

Pursuant to 326 IAC 7-1.1, this rule applies to all emissions units with a potential to emit twenty-five (25) tons per year or ten (10) pounds per hour of sulfur dioxide. The potential emissions from each of the hot water heater, dry-off oven, 2 - zone curing oven, three (3) air make up units, and three (3) air space heaters, are less than twenty-five (25) tons per year and ten (10) pounds per hour respectively. Therefore, 326 IAC 7-1.1-2 does not apply to the hot water heater, dry-off oven, 2 - zone curing oven, three (3) air make up units, and three (3) air space heaters, and the requirements are not included in the permit.

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 July 8, 2008.

The construction and operation of this source shall be subject to the conditions of the attached proposed Registration No. 079-26727-00012. The staff recommends to the Commissioner that this Registration be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Hannah Desrosiers 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) 234-5374 or toll free at 1-800-451-6027 extension 4-5374.
- (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

Appendix A: Emissions Calculations Emission Summary

Company Name: Martinrea Industries, Inc.
Address City IN Zip: 505 Industrial Drive
 North Vernon, Indiana
Permit No.: 079-26727-00012
Reviewer: Hannah L. Desrosiers
Date Submitted: July 8, 2008

Uncontrolled Potential Emissions (tons/year)					
Category	Pollutant	Emissions Generating Activity			TOTAL
		Surface Coating Operations	Welding	Natural Gas Combustion	
Criteria Pollutants	PM	0.61	0.04	0.54	1.19
	PM10*	0.61	0.04	0.54	1.19
	PM2.5	0.61	0.04	0.40	1.05
	SO2	0	0	0.04	0.04
	NOx	0	0	7.10	7.10
	VOC	7.06	0	0.39	7.45
	CO	0	0	5.96	5.96
Hazardous Air Pollutants	Benzene	0	0	1.49E-04	1.49E-04
	Dichlorobenzene	0	0	8.52E-05	8.52E-05
	Ethanol, 2-(2-butoxyethoxy)-	0.07	0	0	0.067
	Formaldehyde	0	0	5.33E-03	5.33E-03
	Hexane	0	0	0.128	0.128
	Toluene	0	0	2.41E-04	2.41E-04
	Cadmium	0	0	7.81E-05	7.81E-05
	Chromium	0	0	9.94E-05	9.94E-05
	Lead	0	0	3.55E-05	3.55E-05
	Manganese	0.44	3.81E-03	2.70E-05	0.45
	Nickel	0	0	1.49E-04	1.49E-04
	Totals		0.508	0.004	0.134
Worse Case HAP					0.45

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

* 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". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

**Appendix A: Emission Calculations
Surface Coating Operations**

Company Name: Martinrea Industries, Inc.
Address City IN Zip: 505 Industrial Drive, North Vernon, Indiana
Permit No.: 079-26727-00012
Reviewer: Hannah L. Desrosiers
Date Submitted: July 8, 2008

VOC and Particulate

Material	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Material Usage (gal/unit)	Maximum Throughput (units/hr)	Maximum Usage (gal/day)	Maximum Usage (lb/hr)	Pounds VOC per Gallon of Coating	Pounds VOC per Gallon of Coating Less Water	Unlimited PTE VOC (lbs/hr)	Unlimited PTE VOC (lbs/day)	Actual VOC (lb/day)	Unlimited PTE VOC (tons/yr)	Actual VOC (ton/yr)	Uncontrolled PTE PM/PM10/PM2.5 (lbs/hr)	Uncontrolled PTE PM/PM10/PM2.5 (tons/yr)	Transfer Efficiency %	
Dip-Spin Coating Line																					
Infinicote	9.8	62.1%	53.3%	8.8%	58.5%	37.90%	0.00461	405	44.8	18.3	0.86	2.08	1.61	38.67	25.78	7.06	3.09	0.14	0.61	98.0%	
Phosphating																					
Bonderite 7400	9.2	10.0%	0.0%	10.0%	0.0%	20.00%	0.00027	405	2.6	1.0	0.92	---	0.10	2.42	1.61	0.44	0.19	0.00	0.00	100.0%	
Aqueous Cleaning																					
Parco Cleaner 472	10.0	1.0%	0.0%	1.0%	0.0%	25.00%	0.00164	405	16.0	6.7	0.10	---	0.07	1.60	1.07	0.29	0.13	0.00	0.00	100.0%	
State Potential Emissions												"Worst Case" Uncontrolled	2.08	1.61	38.67	25.78	7.06	3.09	0.14	0.61	

Methodology

Maximum Usage (gal/day) = Material Usage (gal/unit) * Maximum Throughput (units/hr) * 24 hrs/day
 Maximum Usage (lb/hr) = Density (lbs/gal) * Material Usage (gal/unit) * Maximum Throughput (units/hr)
 Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
 Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
 Unlimited PTE VOC (lbs/hr) = Pounds VOC per Gallon of Coating (lbs/gal) * Maximum Usage (gal/unit) * Maximum Throughput (units/hr)
 Unlimited PTE VOC (lbs/day) = Unlimited PTE VOC (lbs/hr) * 24 hrs/day
 Actual VOC (lbs/day) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * 8hr
 Unlimited PTE VOC (tons/yr) = Unlimited PTE VOC (lbs/hr) * 8760 hrs/yr * 1 ton/2000 lbs
 Actual VOC (tons/yr) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (2920 hr/yr) * (1 ton/2000 lbs)
 Uncontrolled PTE PM/PM10/PM2.5 (tons/yr) = Density (lbs/gal) * (1- Weight % Volatile) * Maximum Usage (gal/unit) * Maximum Throughput (units/hr) * (1-Transfer Efficiency %) * 8760 hrs/yr * 1 ton/2000 lbs
 PTE PM/PM10/PM2.5 After Control (tons/yr) = Uncontrolled PTE PM/PM10 (tons/yr) * (1-Control Efficiency %)

Notes

Potential emissions based on rated capacity at 8,760 hours/year.
 PM = PM10 = PM2.5
 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". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

HAP Emission Calculations

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum Usage (unit/hour)	Weight % Manganese	Manganese Emissions (ton/yr)	Weight % Ethanol, 2-(2-butoxyethoxy)-	Ethanol, 2-(2-butoxyethoxy)- Emissions (ton/yr)
Dip-Spin Coating Line							
Infinicote	9.81	0.00461	405	0%	0	2%	0.067
Phosphating							
Bonderite 7400	9.18	0.00027	405	10.00%	0.441	0%	0
Aqueous Cleaning							
Parco Cleaner 472	10.01	0.00164	405	0%	0	0%	0
Total Single HAPs					0.44		0.07
Total Combined HAPs							0.51

METHODOLOGY

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

Appendix A: Emissions Calculations
Welding and Thermal Cutting

Company Name: Martinrea Industries, Inc.
Address City IN Zip: 505 Industrial Drive, North Vernon, Indiana
Permit No.: 079-26727-00012
Reviewer: Hannah L. Desrosiers
Date Submitted: July 8, 2008

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
			PM = PM10 = PM2.5	Mn	Ni	Cr	PM = PM10 = PM2.5	Mn	Ni	Cr	
WELDING											
Metal Inert Gas (MIG)(carbon steel)	15	0.116	0.0055	0.0005			0.010	0.001	0	0	0.001
EMISSION TOTALS											
Potential Emissions lbs/hr							0.01	8.70E-04	0	0	8.70E-04
Potential Emissions lbs/day							0.23	0.02	0	0	0.02
Potential Emissions tons/year							0.04	3.81E-03	0	0	3.81E-03

METHODOLOGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

**Emission Factor for plasma cutting from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted). Therefore, the emission factor for plasma cutting is for 8 mm thick rather than 1 inch, and the maximum metal thickness is not used in calculating the emissions.

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

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

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

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

Company Name: Martinrea Industries, Inc.
Address City IN Zip: 505 Industrial Drive
North Vernon, Indiana
Permit No.: 079-26727-00012
Reviewer: Hannah L. Desrosiers
Date Submitted: July 8, 2008

Combustion Source	# of units	Heat Input per unit (MMBtu/hr)	Total Heat Input (MMBtu/hr)
Hot Water Heater	1	1.65	1.65
Dry-off Oven	1	0.36	0.36
2 - Zone Curing Oven	1	2.00	2.00
Air Make-up Units	2	4.00	8.00
Air Make-up Units	1	3.00	3.00
Air Space Heaters	3	0.40	1.20
Total	9	11.41	16.21

Maximum Heat Input Capacity
MMBtu/hr
16.21

Potential Throughput
MMCF/yr
142.01

Particulate Emissions

Emission Factor in lb/MMCF	Pollutant						
	PM	PM10*	PM2.5*	SO2	NOx	VOC	CO
7.6	7.6	7.6	5.7	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.540	0.540	0.405	0.043	7.10	0.39	5.96

*PM10 emission factor is filterable and condensable fractions combined. PM2.5 emission factor is condensable fraction only.

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

HAPs Emissions

Emission Factor in lb/MMcf	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
2.10E-03	1.20E-03	0.08	1.80	3.40E-03	
Potential Emission in tons/yr	1.49E-04	8.52E-05	5.33E-03	0.128	2.41E-04

Emission Factor in lb/MMcf	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
5.00E-04	1.10E-03	1.40E-03	3.80E-04	2.10E-03	
Potential Emission in tons/yr	3.55E-05	7.81E-05	9.94E-05	2.70E-05	1.49E-04

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Total HAPs = 0.134 tons/yr

Worst Single HAP = 0.128 tons/yr

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 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