



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: May 14, 2007
RE: Patrick Metals / 141-24405-00561
FROM: Nisha Sizemore
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, Room 1049, 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 03/23/06



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

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

Mr. Steve Peterson
Patrick Metals
5020 Lincoln Way East
Mishawaka, Indiana 46544

May 14, 2007

Re: Registered Operation Status,
141-24405-00561

Dear Mr. Peterson:

The application from Patrick Metals received on March 5, 2007, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following emission units at an aluminum extrusion, fabrication, and powder coating facility, located at 5020 Lincoln Way East, Mishawaka, Indiana, 46544 is classified as registered:

- (a) One (1) powder coating line, identified as P1, constructed in 2007, with a maximum throughput rate of 1.5 tons of aluminum per hour, equipped with an integral fabric filter, and exhausting inside the building. The waste coat is collected for reuse and the particulate emissions from this line are less than 0.551 pounds per hour.
- (b) One (1) metal extrusion process, constructed in 1988, with a maximum throughput rate of 2.0 tons of aluminum per hour and the maximum particulate emissions less than 0.551 pounds per hour.
- (c) One (1) metal fabrication operation, constructed in 1988, with a maximum throughput rate of 0.5 tons of aluminum per hour and the maximum particulate emissions less than 0.551 pounds per hour.
- (d) One (1) parts washer, identified as E12, constructed in 2006, using only washing solutions containing no VOC.
- (e) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour (MMBtu/hr), including the following:
 - (1) One (1) natural gas-fired press heater, identified as E1, constructed in 1988, with a maximum heat input capacity of 4.5 MMBtu/hr, and exhausting through stack S1.
 - (2) One (1) natural gas-fired press heater, identified as E2, constructed in 1988, with a maximum heat input capacity of 5.4 MMBtu/hr, and exhausting through stack S2.
 - (3) Two (2) natural gas-fired age ovens, identified as E3 and E4, constructed in 1988, each with a maximum heat input capacity of 5.0 MMBtu/hr, and exhausting through stack S3 and S4, respectively.
 - (4) One (1) CFM makeup oven, identified as E5, constructed in 2006, using natural gas as fuel, with a maximum heat input capacity of 0.5 MMBtu/hr, and exhausting through stack S5.
 - (5) One (1) HVAC, identified as E6, constructed in 2006, using natural gas as fuel, with a maximum heat input capacity of 0.3 MMBtu/hr, and exhausting through stack S6.

- (6) One (1) pretreat wash heater, identified as E7, constructed in 2006, using natural gas as fuel, with a maximum heat input capacity of 3.8 MMBtu/hr, and exhausting through stack S7.
 - (7) One (1) dry-off oven, identified as E8, constructed in 2006, using natural gas as fuel, with a maximum heat input capacity of 1.1 MMBtu/hr, and exhausting through stack S8.
 - (8) One (1) dry-off oven, identified as E9, constructed in 2006, using natural gas as fuel, with a maximum heat input capacity of 1.75 MMBtu/hr, and exhausting through stack S9.
 - (9) Two (2) powder cure ovens, identified as E10, constructed in 2007, using natural gas as fuel, each with a maximum heat input capacity of 1.1 MMBtu/hr, and exhausting through stack S10.
 - (10) One (1) burn-off oven, identified as E11, constructed in 2006, using natural gas as fuel, with a maximum heat input capacity of 0.46 MMBtu/hr, and exhausting through stack S11.
 - (11) Two (2) air make-up units, identified as F1, constructed in 1988, using natural gas as fuel, each with a maximum heat input capacity of 0.5 MMBtu/hr, and exhausting through stack S12.
 - (12) Twelve (12) office heating furnaces, identified as F2, constructed in 1988, using natural gas as fuel, each with a maximum heat input capacity of 0.13 MMBtu/hr, and exhausting through stack S13.
- (f) Vessels storing hydraulic oils, lubricating oils, machining oils, and machining fluids.
 - (g) Machining where an aqueous cutting coolant continuously floods the machining interface.
 - (h) Infrared cure equipment.
 - (i) Quenching operations used with heat treating processes.
 - (j) Paved and unpaved roads and parking lots with public access.

The following conditions shall be applicable:

1. Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:
 - (a) Opacity shall not exceed an average of thirty percent (30%) 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.
2. The fabric filter is considered an integral part of the powder coating line; therefore, particulate from the powder coating line shall be controlled by the fabric filter at all times that the powder coating line is in operation. The Permittee shall operate the fabric filter in accordance with manufacturer's specifications.
3. Pursuant to 326 IAC 4-2-2(a) (Incinerators), the burn-off oven (E11) shall comply with the following requirements:

- (a) Consist of primary and secondary chambers or the equivalent.
 - (b) Be equipped with a primary burner unless burning only wood products.
 - (c) Comply with 326 IAC 5-1 and 326 IAC 2.
 - (d) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in 326 IAC 4-2-2(c).
 - (e) Be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented;
 - (f) Not emit particulate matter in excess of five-tenths (0.5) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators with solid waste capacity less than two hundred (200) pounds per hour.
 - (g) Be operated so as to not create a nuisance or fire hazard.
 - (h) If any of the requirements of paragraphs (a) through (g) are not met, then the Permittee shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.
4. Pursuant to 326 IAC 9-1-2 (Carbon Monoxide Emission Limits), the Permittee shall not operate refuse burning equipment (burn-off oven E11) unless the waste gas stream is burned in a direct flame afterburner or a secondary chamber. The Permittee complies with this requirement by burning the waste gas stream in a secondary chamber.
5. Pursuant to 326 IAC 6-4(Fugitive Dust Emissions), the owner and /or operator of this source shall not generate fugitive dust 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, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

This registration is the first air approval issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

**Compliance Data Section
Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251**

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Pursuant to Contract No. A305-5-65, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Yu-Lien Chu, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 386-1024 to speak directly to Ms. Chu. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, or call (800) 451-6027, and ask for Duane Van Laningham or extension 3-6878, or dial (317) 233-6878.

Sincerely,


Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

ERG/YC

cc: File - St. Josephs County
St. Josephs County Health Department
Northern Regional Office
Air Compliance Section Inspector - Rick Reynolds
Compliance Data Section
Administrative and Development
Technical Support and Modeling - Michele Boner
Billing, Licensing, and Training Section - Dan Stamatkin

Registration Annual Notification

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

Company Name:	Patrick Metals
Address:	5020 Lincoln Way East
City:	Mishawaka, Indiana 46544
Authorized individual:	Dale Smith
Phone #:	(574) 255-9692
Registration #:	R141-24405-00561

I hereby certify that Patrick Metals is still in operation and is in compliance with the requirements of Registration R141-24405-00561.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name:	Patrick Metals
Location:	5020 Lincoln Way East, Mishawaka, Indiana 46544
County:	St. Joseph
SIC Code:	3355
Registration No.:	141-24405-00561
Permit Reviewer:	ERG/YC

The Office of Air Quality (OAQ) has reviewed an application from Patrick Metals relating to the operation of an aluminum extrusion, fabrication, and powder coating facility.

History

Patrick Metals is an existing aluminum extrusion and fabricating facility which was constructed in 1988. The potential to emit of the entire source is less than the exemption thresholds listed in 326 IAC 2-1.1-3(e) and there was no air approval issued to this source. In the application received on March 5, 2007, the Permittee applied for a registration to operate the existing emission units and a new powder coating line which was constructed in 2007. The powder coating line has been installed but has not started operating.

The potential to emit of the new powder coating line and the associated ovens are less than the exemption thresholds in 326 IAC 2-1.1-3(e). Therefore, the construction of the powder coating line and the associated ovens does not require air approval. However, the potential to emit of the entire source after this modification will exceed the exemption thresholds. The Permittee has applied for a registration for the operation of this facility.

Permitted Emission Units and Pollution Control Equipment

There are no permitted emission units operating at this time.

Unpermitted Emission Units and Pollution Control Equipment

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

Existing Exempted Emission Units and Pollution Control Equipment

The application includes information relating to the operation of the following existing emission units, which were considered exempt units when constructed:

- (a) One (1) powder coating line, identified as P1, constructed in 2007, with a maximum throughput rate of 1.5 tons of aluminum per hour, equipped with an integral fabric filter, and exhausting inside the building. The waste coat is collected for reuse and the particulate emissions from this line are less than 0.551 pounds per hour.

- (b) One (1) metal extrusion process, constructed in 1988, with a maximum throughput rate of 2.0 tons of aluminum per hour and the maximum particulate emissions less than 0.551 pounds per hour.
- (c) One (1) metal fabrication operation, constructed in 1988, with a maximum throughput rate of 0.5 tons of aluminum per hour and the maximum particulate emissions less than 0.551 pounds per hour.
- (d) One (1) parts washer, identified as E12, constructed in 2006, using only washing solutions containing no VOC.
- (e) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour (MMBtu/hr), including the following:
 - (1) One (1) natural gas-fired press heater, identified as E1, constructed in 1988, with a maximum heat input capacity of 4.5 MMBtu/hr, and exhausting through stack S1.
 - (2) One (1) natural gas-fired press heater, identified as E2, constructed in 1988, with a maximum heat input capacity of 5.4 MMBtu/hr, and exhausting through stack S2.
 - (3) Two (2) natural gas-fired age ovens, identified as E3 and E4, constructed in 1988, each with a maximum heat input capacity of 5.0 MMBtu/hr, and exhausting through stack S3 and S4, respectively.
 - (4) One (1) CFM makeup oven, identified as E5, constructed in 2006, using natural gas as fuel, with a maximum heat input capacity of 0.5 MMBtu/hr, and exhausting through stack S5.
 - (5) One (1) HVAC, identified as E6, constructed in 2006, using natural gas as fuel, with a maximum heat input capacity of 0.3 MMBtu/hr, and exhausting through stack S6.
 - (6) One (1) pretreat wash heater, identified as E7, constructed in 2006, using natural gas as fuel, with a maximum heat input capacity of 3.8 MMBtu/hr, and exhausting through stack S7.
 - (7) One (1) dry-off oven, identified as E8, constructed in 2006, using natural gas as fuel, with a maximum heat input capacity of 1.1 MMBtu/hr, and exhausting through stack S8.
 - (8) One (1) dry-off oven, identified as E9, constructed in 2006, using natural gas as fuel, with a maximum heat input capacity of 1.75 MMBtu/hr, and exhausting through stack S9.
 - (9) Two (2) powder cure ovens, identified as E10, constructed in 2007, using natural gas as fuel, each with a maximum heat input capacity of 1.1 MMBtu/hr, and exhausting through stack S10.
 - (10) One (1) burn-off oven, identified as E11, constructed in 2006, using natural gas as fuel, with a maximum heat input capacity of 0.46 MMBtu/hr, and exhausting through stack S11.
 - (11) Two (2) air make-up units, identified as F1, constructed in 1988, using natural gas as fuel, each with a maximum heat input capacity of 0.5 MMBtu/hr, and exhausting through stack S12.

- (12) Twelve (12) office heating furnaces, identified as F2, constructed in 1988, using natural gas as fuel, each with a maximum heat input capacity of 0.13 MMBtu/hr, and exhausting through stack S13.
- (f) Vessels storing hydraulic oils, lubricating oils, machining oils, and machining fluids.
- (g) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (h) Infrared cure equipment.
- (i) Quenching operations used with heat treating processes.
- (j) Paved and unpaved roads and parking lots with public access.

Existing Approvals

There are no air approvals issued to this source.

Air Pollution Control Justification as an Integral Part of the Process

The company submitted the following justification for considering the fabric filter as an integral part of the powder coating line:

The dry filters used on the powder coating line should be considered integral to the normal operation of the coating line, since there is significant economic benefit gained by collecting and re-using the powder coating.

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

Enforcement Issue

There are no enforcement actions pending.

Recommendation

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

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on March 5, 2007. Additional information was received on May 2, 2007.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 and 2).

Potential to Emit of the Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational

design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential to Emit (tons/year)
PM	0.27
PM10	1.06
SO ₂	0.08
VOC	0.77
CO	11.7
NO _x	14.0

HAPs	Potential to Emit (tons/yr)
Benzene	0.26
Formaldehyde	0.01
Other HAPs	Negligible
Total	0.27

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of all criteria pollutants is less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-1.1-1(16)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (c) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of all criteria pollutants is less than 25 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-6.1(MSOP).
- (d) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of NO_x is greater than or equal to 10 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-1.1-3 (Exemptions).
- (e) Fugitive Emissions
Since this type of operation is not in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset.

County Attainment Status

The source is located in St. Joseph County.

Pollutant	Status
PM10	Attainment
PM2.5	Attainment
SO ₂	Attainment
NO ₂	Attainment
8-hour Ozone	Nonattainment
CO	Attainment
Lead	Attainment

- (a) 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 NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. St. Joseph County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

- (b) St. Joseph County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.
- (c) St. Joseph County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Source Status

Existing Source PSD and Emission Offset Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	0.27
PM10	1.06
SO ₂	0.08
VOC	0.77
CO	11.7
NO _x	14.0

- (a) This existing source is not a PSD major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, the requirements of PSD do not apply.
- (a) This existing source is not a Emission Offset major stationary source because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or greater. Therefore, the requirements of Emission Offset do not apply.
- (c) These emissions are based on the potential to emit of this source (see Appendix A).

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons per year.

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) included in this registration.

- (b) The source does not perform surface coating operations to metal furniture. Therefore, the New Source Performance Standards for Surface Coating of Metal Furniture (326 IAC 12, 40 CFR 60.310 - 60.316, Subpart EE) are not included in this registration.
- (c) The source does not perform metal coil surface coating operations. Therefore, the New Source Performance Standards for Metal Coil Surface Coating (40 CFR Part 60.460 - 60.466, Subpart TT) are not included in this registration.
- (d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) included in this registration.
- (e) This source is a minor source for HAPs. Therefore, the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for the Miscellaneous Metal Parts and Products Surface Coating (40 CFR 63, Subpart MMMM) are not included in this registration.

State Rule Applicability – Entire Source

326 IAC 2-3 (Emission Offset)

The source was constructed in 1988 and modified in 2007. This source is located in St. Joseph County which has been designated as nonattainment for the 8-hour ozone standard. The potential to emit VOC and NO_x from the existing source is less than 100 tons per year. Therefore, this existing source is an Emission Offset minor source. The modification in 2007 does not have potential to emit VOC or NO_x greater than 100 tons per year. Therefore, the modification in 2007 is not subject to the requirements of 326 IAC 2-3 (Emission Offset). The potential to emit from this source remains less than 100 tons per year for VOC and NO_x after the modification in 2007. Therefore, this source remains an Emission Offset minor source.

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

The source was constructed in 1988 and modified in 2007. This source is not in 1 of 28 source categories and the potential to emit of PM, PM₁₀, SO₂, and CO is less than 250 tons per year before control. Therefore, this existing source is a PSD minor source. The modification in 2007 does not have potential to emit PM, PM₁₀, SO₂, and CO greater than 250 tons per year. Therefore, the modification in 2007 is not subject to the requirements of 326 IAC 2-2 (PSD). The potential to emit from this source remains less than 250 tons per year for PM, PM₁₀, SO₂, and CO after the modification in 2007. Therefore, this source remains a PSD minor source.

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

The potential to emit HAP from the entire source is less than 10 tons per year for a single HAP and less than 25 tons per year for total HAPs. Therefore, the requirements of 326 IAC 2-4.1 (MACT) are not applicable.

326 IAC 2-6 (Emission Reporting)

This source is located in St. Joseph County, is not required to operate under a Part 70 permit, and has potential lead emissions that are less than five (5) tons per year. Therefore, pursuant to 326 IAC 2-6-1(b), the source is only subject to additional information requests as provided in 326 IAC 2-6-5.

326 IAC 5-1 (Opacity Limitations)

This source is located in St. Joseph County and is located in an area north of Kern Road and East of Pine Road. 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 the permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) 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.

State Rule Applicability – Power Coating Line

326 IAC 8-1-6 (General Reduction Requirements for VOC Emissions)

There are no VOC emissions associated with the powder coating process. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

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

The one (1) powder coating line is not subject to the requirements of 326 IAC 8-2-9 because spray application of the dry powder coatings does not emit VOCs.

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

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

State Rule Applicability – Extrusion and Fabrication Operations

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

The particulate emissions from the aluminum extrusion and fabrication operations are less than 0.551 pounds per hour. Therefore, these operations are exempt from the requirements of 326 IAC 6-3, pursuant to 326 IAC 6-3-1(b)(14).

State Rule Applicability – Burn-Off Oven E11

326 IAC 4-2-2 (Incinerators)

The burn-off oven (E11) is subject to the requirements of 326 IAC 4-2-2 because it emits regulated pollutants and is not subject to the requirements of any rules under 40 CFR Part 60 (NSPS), Part 61, Part 62, or Part 63 (NESHAP).

Pursuant to 326 IAC 4-2-2(a) (Incinerators), the burn-off oven (E11) shall comply with the following requirements:

- (a) Consist of primary and secondary chambers or the equivalent.
- (b) Be equipped with a primary burner unless burning only wood products.
- (c) Comply with 326 IAC 5-1 and 326 IAC 2.
- (d) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in 326 IAC 4-2-2(c).
- (e) Be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented;
- (f) Not emit particulate matter in excess of five-tenths (0.5) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators with solid waste capacity less than two hundred (200) pounds per hour.

- (g) Be operated so as to not create a nuisance or fire hazard.
- (h) If any of the requirements of paragraphs (a) through (g) are not met, then the Permittee shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.

326 IAC 9-1-2 (Carbon Monoxide Emission Limits)

The burn-off oven (E11) is considered to be refuse burning equipment. Pursuant to 326 IAC 9-1-2, the Permittee shall not operate refuse burning equipment unless the waste gas stream is burned in a direct flame afterburner or a secondary chamber. The Permittee complies with this requirement by burning the waste gas stream in a secondary chamber.

State Rule Applicability – Natural Gas-Fired Ovens and Heaters

326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)

The natural gas-fired ovens or heaters are not subject to 326 IAC 6-2 as they are not indirect heating units.

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

Pursuant to 326 IAC 6-3-1(b)(14), the natural gas-fired ovens and heaters are exempt from the requirements of 326 IAC 6-3, because it has a potential particulate emissions less than five hundred fifty-one thousandths (0.551) pound per hour.

326 IAC 7-1.1 (Sulfur dioxide emission limitations: applicability)

The natural gas-fired ovens and heaters are not subject to the requirements of 326 IAC 7-1.1-1, because the potential and the actual emissions of sulfur dioxide are less than twenty-five (25) tons per year and ten (10) pounds per hour, respectively.

State Rule Applicability – Fugitive Emissions

326 IAC 6-4 (Fugitive Dust Emissions)

Pursuant to 326 IAC 6-4, the owner and /or operator of this source shall not generate fugitive dust 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, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

326 IAC 6-5 (Fugitive Particulate Emissions Limitations)

Although part of the emission units were constructed after December 13, 1985, the provisions of 326 IAC 6-5 do not apply to this source because the only source of fugitive dust is from paved and unpaved roads.

Conclusion

The operation of this aluminum extrusion, fabrication, and powder coating facility shall be subject to the conditions of the Registration No.: 141-24405-00561.

Appendix A: Emission Calculations
Natural Gas Combustion
(MMBtu/hr < 100)
From the Natural Gas-Fired Units

Company Name: Patrick Metals
Address: 5020 Lincoln Way East, Mishawaka, Indiana 46544
Registration: 141-24405-00561
Reviewer: ERGYC
Date: May 2, 2007

Heat Input Capacity
 MMBtu/hr
 32.6 (26 units total)

Potential Throughput
 MMSCF/yr
 280

Emission Factor in lbs/MMSCF	Pollutant					
	PM	PM10*	SO ₂	**NO _x	VOC	CO
1.9	7.6	0.6	100	5.5	84.0	
Potential to Emit in tons/yr	0.27	1.06	0.08	14.0	0.77	11.7

*PM10 emission factor is condensable and filterable PM combined.

**Emission factors for NO_x: Uncontrolled = 100.

Emission factors are from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 07/98)

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMSCF = 1,000,000 Standard Cubic Feet of Gas

Methodology

Potential Throughput (MMSCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMSCF/1,020 MMBtu
 Potential to Emit (tons/yr) = Potential Throughput (MMSCF/yr) x Emission Factor (lbs/MMSCF) x 1 ton/2000 lbs

**Appendix A: Emission Calculations
HAP Emissions
From the Natural Gas-Fired Units**

**Company Name: Patrick Metals
Address: 5020 Lincoln Way East, Mishawaka, Indiana 46544
Registration: 141-24405-00561
Reviewer: ERG/YC
Date: May 2, 2007**

Heat Input Capacity
MMBtu/hr

32.6 (26 units total)

Potential Throughput
MMSCF/yr

285

Emission Factor in lbs/MMSCF	Pollutant					Total HAPs
	Hexane 1.8E+00	Formaldehyde 7.5E-02	Toluene 3.4E-03	Benzene 2.1E-03	Nickel 2.1E-03	
Potential to Emit in tons/yr	0.26	1.07E-02	4.85E-04	3.00E-04	3.00E-04	0.27

Emission factors are from AP-42, Chapter 1.4, Tables 1.4-3 and 1.4-4 (AP-42, 07/98).

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMSCF = 1,000,000 Standard Cubic Feet of Gas

Methodology

Potential Throughput (MMsCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMSCF/1,020 MMBtu
PTE (tons/yr) = Potential Throughput (MMSCF/yr) x Emission Factor (lbs/MMSCF) x 1 ton/2000 lbs