



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: April 29, 2009

RE: Girtz Industries, Inc / 181-27457-00038

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

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 13-15-5-3, this permit 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.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require 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
FNPER.dot12/03/07



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New Source Construction and Minor Source Operating Permit OFFICE OF AIR QUALITY

Girtz Industries, Inc.
5262 N. East Shafer Drive
Monticello, IN, Indiana 47960

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

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-5.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a MSOP under 326 IAC 2-6.1.

Operation Permit No.: M181-27457-00038	
Issued by:  Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: April 29, 2009 Expiration Date: April 29, 2014

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SECTION A SOURCE SUMMARY

This permit 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 Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and manufactures a stationary metal enclosures and skid bases for power packaging and performs diesel generator quality assurance testing operation.

Source Address:	5262 N. East Shafer Drive, Monticello, IN, Indiana 47960
Mailing Address:	5262 N. East Shafer Drive, Monticello, IN 47960
General Source Phone Number:	(574) 278 -7510
SIC Code:	3244
County Location:	White
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary

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

- (a) One (1) spray paint booth, identified as SB-1, constructed in 1997, utilizing an air assisted airless spray system, with a maximum capacity of 91.25 metal containers per month or 1095 metal containers per year, controlled with a corrugated paper filter for particulate control which exhausts to stack S1 with a maximum flow rate of 30,000 acfm, and a process throughput of 1.6 tons/hr of metal containers.

NOTE: The abrasive blasting process causes a bottle neck on the operation of painting operation. Only 3 units are coated per day.

- (b) One (1) powder spray booth, identified as PCB-1, constructed in 1997, utilizing electrostatic spray gun, equipped with cartridge filtration system, exhausting inside, maximum capacity; 2 units per day, 2,000 lbs per unit and using 11.6 pounds of powder per hour, with a process throughput of 0.084 tons per hour.
- (c) Abrasive Blasters:
- (1) Two (2) enclosed abrasive sand blasting operations, identified as AB-1 and AB-2, constructed in 1997 and 2008 respectively, abrasive flow rate of 595 lb/hr and a nozzle pressure of 110 psig each, equipped with baghouse B-1 for particulate control, with a maximum process throughput of 1.56 tons/hr combined for AB-1 and AB-2, exhausting through stack S6.
- (2) One (1) manual abrasive blasting cabinet, identified as AB-3, constructed in 2008, propelling steel shots, maximum abrasive flow rate of 370.8 lb/hr and a nozzle pressure of 120 psig, with a maximum capacity of 2400 pounds metal parts including shot blasts per day, exhausting through stack S6.

(d) Laser Cutting and Welding Operation:

- (1) Twenty five (25) metal inert gas (MIG) welders, identified as W-1, constructed in 1990, with a maximum hourly consumption of 148.53 pounds of wire, and exhausting inside.
- (2) Seven (7) TIG manually operated welding stations, identified as W-2, constructed in 1990, with a maximum hourly consumption of 9.85 lbs/hr of electrode each, and maximum capacity of less than six hundred twenty-five (625) pounds of wire consumed per day each, and exhausting inside.
- (3) Two (2) Laser cutting stations, each with a maximum capacity of 3,400 inches/ hour of stock one (1) inches thickness, identified as LC-1 and LC-2, constructed in 1996, equipped with downdraft filters and exhausting through stack S2.
- (4) One (1) plasma cutting unit, identified as PC-1, equipped with downdraft filters and exhausting through stack S3.

(e) One (1) diesel generator quality assurance testing station, constructed in 2007, with a maximum capacity of 120 test runs per month at 1 hour per test run per generator consisting of the following:

- (1) One (1) compression ignition diesel generator set, identified as G-1, rated at a maximum output of 2,680 horsepower, and exhausting to the outdoors.

(f) Natural Gas Combustion:

- (1) One (1) natural gas fired drying oven, identified as DO-1, with a maximum heat input capacity of 2.0 MMBtu per hour, exhausting outside through stack S5.
- (2) One (1) natural gas fired controlled pyrolysis cleaning furnace, identified as PF-1, with a maximum heat input capacity of 0.5 MMBtu per hour and a maximum of 80 pounds of dried coatings per hour, exhausting outside through stack S4.

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SECTION B GENERAL CONDITIONS

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

Terms in this permit 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 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.3 Affidavit of Construction [326 IAC 2-5.1-3(h)] [326 IAC 2-5.1-4]

This document shall also become the approval to operate pursuant to 326 IAC 2-5.1-4 when prior to the start of operation, the following requirements are met:

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), verifying that the emission units were constructed as proposed in the application or the permit. The emission units covered in this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM if constructed as proposed.
- (b) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2 and an Operation Permit Validation Letter is issued.
- (c) The Permittee shall attach the Operation Permit Validation Letter received from the Office of Air Quality (OAQ) to this permit.

B.4 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

- (a) This permit, M181-27457-00038, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

B.5 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

B.6 Enforceability

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.7 Severability

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.8 Property Rights or Exclusive Privilege

This permit does not convey any property rights of any sort or any exclusive privilege.

B.9 Duty to Provide Information

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.10 Certification

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.11 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(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 permit.

(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 and Enforcement 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.12 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after

issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

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

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to M181-27457-00038 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 permit.

B.14 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least one hundred twenty (120) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.15 Permit Renewal [326 IAC 2-6.1-7]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
- (1) Submitted at least one hundred twenty (120) days prior to the date of the expiration of this permit; and
 - (2) 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.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.16 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.17 Source Modification Requirement

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.18 Inspection and Entry
[326 IAC 2-5.1-3(e)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.19 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

B.20 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees due within thirty (30) calendar days of receipt of a bill from IDEM, OAQ,.

- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.21 Credible Evidence [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

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SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Permit Revocation [326 IAC 2-1.1-9]

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

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (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 permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 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 permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

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

The Permittee 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).

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
- (2) If there is a change in the following:
- (A) Asbestos removal or demolition start date;
- (B) Removal or demolition contractor; or
- (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-6.1-5(a)(2)]

C.8 Performance Testing [326 IAC 3-6]

- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

C.10 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required

monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.12 Instrument Specifications [326 IAC 2-1.1-11]

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps

C.13 Response to Excursions or Exceedances

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:

- (1) monitoring data;
- (2) monitor performance data, if applicable; and
- (3) corrective actions taken.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

C.15 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.16 General Record Keeping Requirements [326 IAC 2-6.1-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are

available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance or ninety (90) days of initial start-up, whichever is later.

C.17 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) Reports required by conditions in Section D of this permit shall be submitted to:

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

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit 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.
- (c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) paint booth, identified as SB-1, constructed in 1997, utilizing an air assisted airless spray system, with a maximum capacity of 91.25 metal containers per month or 1095 metal containers per year, controlled with a corrugated paper filter which exhausts to stack S1 with a maximum flow rate of 30,000 acfm, and a process throughput of 1.6 tons/hr of metal containers.

NOTE: The abrasive blasting process produces a bottle neck on the operation of painting operation. Only 3 units are coated per day.

- (b) One (1) powder spray booth, identified as PCB-1, constructed in 1997, using electrostatic spray gun, equipped with cartridge filtration system, exhausting inside, maximum capacity; 2 units per day, 2,000 lbs per unit and using 11.6 pounds of powder per hour, with a process throughput of 0.084 tons per hour.

(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 2-6.1-5(a)(1)]

D.1.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

- (a) Particulate emissions from the spray paint booth, identified as SB-1, shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.
- (b) If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:
- (1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
 - (2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
- (c) If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

D.1.2 Volatile Organic Compounds (VOC) Limit [326 IAC 8-2-9]

- (a) Pursuant to 326 IAC 8-2-9 (Volatile Organic Compounds, Miscellaneous Metal Coating Operations), when coating metal parts, the volatile organic compound (VOC) content of the coating delivered to the applicator at the surface coating operation, identified as SB-1, shall be limited to 3.5 pounds per gallon of coating, excluding water, for forced warm air dried coatings.
- (b) Pursuant to 326 IAC 8-2-9(f), all solvents sprayed from application equipment of paint booth, SB-1 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.

D.1.3 Operational Limitations

The number of units coated in paint booth, SB-1 shall not exceed 3 units per day.

D.1.4 Particulate Emission Limitations

Pursuant to 326 IAC 6-3-2(e), the particulate emissions from the powder spray booth, identified as PCB-1, shall be limited to less 0.78 pounds per hour, when operating at a process weight rate of 0.084 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:

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

D.1.5 Preventive Maintenance Plan

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, the paint booth SB-1 and PCB-1, is required for these facilities and the filters.

Compliance Determination Requirements

D.1.6 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.

D.1.7 Particulate Control

The cartridge filtration system of the powder spray booth, shall be in operation at all times when powder spray booth, identified as PCB-1, is in operation.

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

D.1.8 Record Keeping Requirements

- (a) To document Compliance with Condition D.1.2, 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.1.2. 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.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(c) Abrasive Blasters:

- (1) Two (2) enclosed abrasive sand blasting operations, identified as AB-1 and AB-2, constructed in 1997 and 2008 respectively, abrasive flow rate of 595 lb/hr and a nozzle pressure of 110 psig each, equipped with baghouse B-1 for particulate control, with a maximum process throughput of 1.56 tons/hr combined for AB-1 and AB-2, exhausting through stack S6.
- (2) One (1) manual abrasive blasting cabinet, identified as AB-3, constructed in 2008, maximum abrasive flow rate of 370.8 lb/hr and a nozzle pressure of 120 psig, with a maximum capacity of 2400 pounds metal parts including shot blasts per day, exhausting through stack S6.

(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 2-6.1-5(a)(1)]

D.2.1 Particulate [326 IAC 6-3-2(d)]

- (a) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the two (2) abrasive blaster operations, identified as AB-1, and AB-2, shall be limited to 5.53 pounds per hour combined when operating at a combined process weight rate of 1.56 tons per hour.
- (b) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the manual abrasive blasting cabinet, identified as AB-3, potential particulate emissions shall not exceed five hundred fifty-one thousandths (0.551) pound per hour when operating at a process weight rate of less than 100 pounds per hour.

The pound per hour limitation was calculated with the following equation:

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

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

D.2.2 Preventive Maintenance Plan

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for shot blasting operation, and their control devices.

Compliance Determination Requirements

D.2.3 Particulate Control

In order to comply with Condition D.2.1, the baghouse for particulate control in blasting operation, AB-1 and AB-2, shall be in operation at all times the shot blast facilities are in operation.

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

D.2.4 Visible Emissions Notations

- (a) Daily visible emission notations of the shot blast facility stack exhaust shall be performed

during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.2.5 Broken or Failed bag Detection

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced.
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line

Filer failure can be indicated by a significant drop in the baghouse pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

D.2.6 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouse used in conjunction with the shot blasting operation, at least once per day when the shot blasting process is in operation. When for any one reading, the pressure drop across the dust collector is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions and Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and Evansville EPA and shall be calibrated at least once every six (6) months.

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

D.2.7 Record Keeping Requirements

- (a) To document Compliance with Condition D.2.4, the Permittee shall maintain daily records of the visible emission notations of the stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (e.g., the process did not operate that day).
- (b) Daily records of the pressure drop across the baghouse controlling the shot blast

process. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g., the process did not operate that day).

- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(d) Laser Cutting and Welding Operation:

- (1) Twenty five (25) metal inert gas (MIG) welders, identified as W-1, constructed in 1990, with a maximum hourly consumption of 148.53 pounds of wire, and exhausting inside.
- (2) Seven (7) TIG manually operated welding stations, identified as W-2, constructed in 1990, with a maximum hourly consumption of 9.85 lbs/hr of electrode each, and maximum capacity of less than six hundred twenty-five (625) pounds of wire consumed per day each, exhausting inside.
- (3) Two (2) Laser cutting stations each with a maximum capacity of 3,400 inches/ hour of stock one (1) inch thickness, identified as LC-1 and LC-2, constructed in 1996, equipped with downdraft filters and exhausting through stack S2.
- (4) One (1) plasma cutting unit, identified as PC-1, equipped with downdraft filters and exhausting through stack S3.

(e) One (1) diesel generator quality assurance testing station, constructed in 2007, with a maximum capacity of 120 test runs per month at 1 hour per test run per generator consisting of the following:

- (1) One (1) compression ignition diesel generator set, identified as G-1, rated at a maximum output of 2,680 horsepower, and exhausting to the outdoors.

(f) Natural Gas Combustion:

- (1) One (1) natural gas fired drying oven, identified as DO-1, with a maximum heat input capacity of 2.0 MMBtu per hour, exhausting outside through stack S5.
- (2) One (1) natural gas fired controlled pyrolysis cleaning furnace, identified as PF-1, with a maximum heat input capacity of 0.5 MMBtu per hour and a maximum of 80 pounds of dried coatings from metal parts per hour, exhausting outside through stack S4.

(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 2-6.1-5(a)(1)]

D.3.1 Particulate [326 IAC 6-3-2(d)]

- (a) Pursuant to 326 IAC 6-3-2, the particulates from the MIG operation, identified as W-1, shall be limited by the following.

The pound per hour limitation was calculated with the following equation:

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

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

D.3.2 Incinerators [326 IAC 4-2-2]

Pursuant to 326 IAC 4-2, the pyrolysis cleaning furnace shall:

- (1) Consist of primary and secondary chambers or the equivalent;
- (2) Be equipped with a primary burner unless burning wood products;
- (3) Comply with 326 IAC 5-1 and 326 IAC 2;
- (4) 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); and
- (5) Not emit particulate matter in excess of one (1) of the following:
 - (A) Three-tenths (0.3) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions correct to fifty percent (50%) excess air for incinerators with solid waste capacity of greater than or equal to two hundred (200) pounds per hour.
 - (B) Five-tenths (0.5) pounds 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 of less than two hundred (200) pounds per hour.
- (6) If any requirements of 326 IAC 4-2-2(a)(1) through 326 IAC 4-2-2(a)(5) above are not met, the Permittee shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.

D.3.3 Carbon Monoxide Emission limits [326 IAC 9-1-2]

Pursuant to 326 IAC 9-1-2 (Carbon Monoxide Emission Limits), the Permittee shall not operate the pyrolysis cleaning furnace unless the waste gas stream is burned in one of the following:

- (1) Direct-flame afterburner; or
- (2) Secondary chamber.

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

**MINOR SOURCE OPERATING PERMIT (MSOP)
CERTIFICATION**

Source Name: Girtz Industries, Inc.
Source Address: 5262 N. East Shafer Drive, Monticello, IN, Indiana 47960
Mailing Address: 5262 N. East Shafer Drive, Monticello, IN 47960
MSOP No.: M181-27457-00038

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify)_____
- Report (specify)_____
- Notification (specify)_____
- Affidavit (specify)_____
- Other (specify)_____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

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

**MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	Girtz Industries, Inc.
Address:	5262 N. East Shafer Drive
City:	Monticello, IN, Indiana 47960
Phone #:	(574) 278 -7510
MSOP #:	M181-27457-00038

I hereby certify that Girtz Industries, Inc. is :

still in operation.

no longer in operation.

I hereby certify that Girtz Industries, Inc. is :

in compliance with the requirements of MSOP M181-27457-00038.

not in compliance with the requirements of MSOP M181-27457-00038.

Authorized Individual (typed):
Title:
Signature:
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:

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY FAX NUMBER: (317) 233-6865

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?____, 25 TONS/YEAR SULFUR DIOXIDE ?____, 25 TONS/YEAR NITROGEN OXIDES?____, 25 TONS/YEAR VOC ?____, 25 TONS/YEAR HYDROGEN SULFIDE ?____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?____, 25 TONS/YEAR FLUORIDES ?____, 100 TONS/YEAR CARBON MONOXIDE ?____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF "MALFUNCTION" AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: _____ PHONE NO. () _____
LOCATION: (CITY AND COUNTY) _____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____/____/20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/20____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____
INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

Mail to: Permit Administration & Development Section
Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Girtz Industries, Inc.
5262 N. East Shafer Drive
Monticello, IN, Indiana 47960

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of _____ for _____
(Title) (Company Name)
3. By virtue of my position with _____, I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____
(Company Name)
4. I hereby certify that Girtz Industries, Inc. 5262 N. East Shafer Drive, Monticello, IN, Indiana 47960, completed construction of the painting and open sandblasting plant on _____ in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on **Reviewer: Insert date application received at IDEM** and as permitted pursuant to New Source Construction Permit and Minor Source Operating Permit No. M181-27457-00038, Plant ID No. 181-00038 issued on _____.
5. **Permittee, please cross out the following statement if it does not apply:** Additional (operations/facilities) were constructed/substituted as described in the attachment to this document and were not made in accordance with the construction permit.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature _____
Date _____

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of Indiana
on this _____ day of _____, 20____. My Commission expires: _____.

Signature _____
Name _____ (typed or printed)

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document (TSD) for a Registration Transitioning to a Minor Source Operating Permit (MSOP) with New Source Review (NSR)

Source Background and Description

Source Name:	Girtz Industries, Inc.
Source Location:	5262 N. East Shafer Drive, Monticello, IN 47960
County:	White
SIC Code:	3444
MSOP No.:	181-27457-00038
Permit Reviewer:	Swarna Prabha

On March 24, 2009, the Office of Air Quality (OAQ) had a notice published in Monticello-Union Township Public Library, 321 West Broadway Street, Monticello, Indiana, 47960, stating that Girtz Industries, Inc. had applied for a Registration Transitioning to a Minor Source Operating Permit (MSOP) to continue to operate a stationary metal enclosures and skid bases for power packaging and performing diesel generator quality assurance testing operation. The notice also stated that the OAQ proposed to issue a MSOP for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments and Responses

NOTE: The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD, but the Permit will have the updated changes.

On April 24, 2009, Ray Boyden of Conerstone Environmental Health and Safety, Inc. submitted comments to IDEM, OAQ on the draft MSOP New Source Review. The comments and revised permit language are provided below with deleted language as ~~strikeouts~~ and new language **bolded**.

Comment 1:

I would like to comment, on behalf of Girtz Industries, that the torit filters associated with AB-1 and AB-2 will no longer be in operation due to the installation of a new baghouse. On the permit application form PI-17, it was stated that two torit filters are used for control and that a baghouse will be added in early 2009. The baghouse has now been installed and the source would like to remove the torit filters from the Emission Unit Description. The source would also like to remove the requirement of operating the torit filters at all times the shot blast units are in operation, as stated in D.2.3. Please feel free to contact me with any questions or concerns.

Response to Comment 1:

As requested by the Permittee, the facility description in Sections A.2, D.2 and D.2.3 of the permit has been revised as follows:

(c) Abrasive Blasters:

- (1) Two (2) enclosed abrasive sand blasting operations, identified as AB-1 and AB-2, constructed in 1997 and 2008 respectively, abrasive flow rate of 595 lb/hr and a nozzle pressure of 110 psig each, equipped with ~~torit filters and~~ baghouse B-1 for

particulate control, with a ~~combined~~ maximum process throughput of 1.56 tons combined for AB-1 and AB-2, exhausting through stack S6.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(c) Abrasive Blasters:

- (1) Two (2) enclosed abrasive sand blasting operations, identified as AB-1 and AB-2, constructed in 1997 and 2008 respectively, abrasive flow rate of 595 lb/hr and a nozzle pressure of 110 psig each, **equipped with baghouse B-1 for particulate control**, with a maximum process throughput of 1.56 tons/hr combined for AB-1 and AB-2, exhausting through stack S6.
- (2) One (1) manual abrasive blasting cabinet, identified as AB-3, constructed in 2008, maximum abrasive flow rate of 370.8 lb/hr and a nozzle pressure of 120 psig, ~~equipped with torit filters to control particulate~~, with a maximum capacity of 2400 pounds metal parts including shot blasts per day, exhausting through stack S6.

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

....

Compliance Determination Requirements

D.2.3 Particulate Control

In order to comply with Condition D.2.1, the ~~torit filters and~~ baghouse for particulate control in blasting operation, AB-1 and AB-2, shall be in operation at all times the shot blast facilities are in operation.

...

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

D.2.7 Record Keeping Requirements

...

- (b) Daily records of the pressure drop across the ~~dust collector~~ **baghouse** controlling the shot blast process. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g., the process did not operate that day).

...

IDEM Contact

Question regarding this permit can be directed to Ms. Swarna Prabha the Indiana Department of Environmental Management, Office of Air Quality, 100 North Senate Avenue, MC 6153 IGCN 1003, Indianapolis, In 46204-2251 or by telephone at 317-234-5376 or toll free at 1-800-452-6027 extension 4-5376.

**Indiana Department of Environmental Management
Office of Air Quality**

Technical Support Document (TSD) for a Registration Transitioning to a Minor
Source Operating Permit (MSOP) with New Source Review (NSR)

Source Description and Location

Source Name: Girtz Industries, Inc.
Source Location: 5262 N. East Shafer Drive, Monticello, IN 47960
County: White
SIC Code: 3444
MSOP No.: 181-27457-00038
Permit Reviewer: Swarna Prabha

This source is metal fabricating and metal coating facility, which manufactures metal enclosures and skid bases for power packaging and diesel generator quality assurance testing operation.

On February 5, 2009, the Office of Air Quality (OAQ) has received an application from Girtz Industries, Inc. related to the transition of a registration to a MSOP due to the additional potential to emit emissions from the unpermitted units.

Existing Approvals

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

- (a) Registration No.: 181-13600-00038, issued on January 16, 2002;
- (b) First Notice-Only Change No.: 181-15539-00038, issued on March 14, 2002;
- (c) Second Notice-Only Change No.: 181-17458-00038, issued on August 21, 2003; and
- (d) Registration Revision No.: 181-24421-00038, issued on February 19, 2008.

County Attainment Status

The source is located in White 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.
¹ Unclassifiable 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

- (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

- (2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, St. Joseph as attainment for the 8-hour ozone standard.
 - (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.
 - (4) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. White County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) **PM2.5**
White 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) **Other Criteria Pollutants**
White 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

- (a) The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-6.1 (Minor Source Operating Permits) applicability.
- (b) Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Background and Description of Permitted Emission Units

The Office of Air Quality (OAQ) has reviewed a Minor Source Operating Permit application, submitted by Gritz Industries, Inc. on February 5, 2009, requesting transition from their existing Registration No. 181-24421-00038, issued on February 19, 2008 to a MSOP. The source has applied to include existing unpermitted emission units, a powder spray booth, identified as PCB-1, enclosed sand blasting operations, identified as AB-2 and AB-3 and welding operations. The Office of Air Quality (OAQ) has reviewed this application, the emissions are considered to be at MSOP level due to the re-evaluation of the potential to emit of the entire source. Therefore, this permit is being reviewed pursuant to the requirements of 326 IAC 2-6.1 (Minor Source Operating Permits) applicability.

The source consists of the following permitted emission units:

- (a) One (1) spray paint booth, identified as SB-1, constructed in 1997, utilizing an air assisted airless spray system, with a maximum capacity of 91.25 metal containers per month or 1095 metal containers per year, controlled with a corrugated paper filter which exhausts to stack S1, with a maximum flow rate of 30,000 acfm, and a process throughput of 1.6 tons/hr of metal containers.

NOTE: The abrasive blasting causes a bottle neck on the operation of painting operation. Only 3 units are

coated per day.

- (b) One (1) enclosed abrasive sand blasting operation, identified as AB-1, constructed in 1997, abrasive flow rate of 595 lb/hr and a nozzle pressure of 110 psig, equipped with torit filters and a baghouse B-1 for particulate control, with a maximum process throughput of 1.56 tons per hour combined for AB-1 and AB-2, exhausting through stack S6.

NOTE: The combined process throughput for shotblasters AB-1 and AB-2 (see below unpermitted unit) is 1.56 tons per hour based on three units shot blasted per day (24 hours), each unit weighs 25,000 lbs. Emission unit AB-2 is listed under unpermitted emission unit.

- (c) One (1) diesel generator quality assurance testing station, constructed in 2007, with a maximum capacity of 120 test runs per month at 1 hour per test run per generator consisting of the following:
 - (1) One (1) compression ignition diesel generator set, identified as G-1, rated at a maximum output of 2,680 horsepower, and exhausting to the outdoors.
- (d) Natural Gas Combustion:
 - (1) One (1) natural gas fired drying oven, identified as DO-1, with a maximum heat input capacity of 2.0 MMBtu per hour, exhausting outside through stack S5.
 - (2) One (1) natural gas fired controlled pyrolysis cleaning furnace, identified as PF-1, with a maximum heat input capacity of 0.5 MMBtu per hour and a maximum of 80 pounds of dried coatings from metal parts per hour, exhausting outside through stack S4.

Unpermitted Emission Units and Pollution Control Equipment

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

- (a) One (1) powder spray booth, identified as PCB-1, constructed in 1997, using electrostatic spray gun, equipped with cartridge filtration system, exhausting inside, maximum capacity; 2 units per day, 2,000 lbs per unit and using 11.6 pounds of powder per hour, with a process throughput of 0.084 tons per hour.
- (b) Abrasive blaster units:
 - (1) One (1) enclosed sand blasting abrasive blasting operation, identified as AB-2, constructed in 2008, abrasive flow rate of 595 lb/hr and a nozzle pressure of 110 psig, equipped with torit filters and a baghouse B-1 for particulate control, with a maximum process throughput of 1.56 tons per hour combined for AB-1 and AB-2, exhausting through stack S6.

NOTE: The combined process throughput for shotblasters AB-1 and AB-2 is 1.56 tons per hour based on three units shot blasted per day (24 Hours), each unit weighs 25,000 lbs. Emission unit AB-1 is listed under permitted emission unit.

- (2) One (1) manual abrasive blasting cabinet, identified as AB-3, constructed in 2008, propelling steel shots, maximum abrasive flow rate of 370.8 lb/hr and a nozzle pressure of 120 psig, with a maximum capacity of 2400 pounds shot blasts including metal parts per day, and exhausting through stack S6.
- (c) Laser Cutting and Welding Operation:
 - (1) Twenty five (25) metal inert gas (MIG) welders, identified as W-1, constructed in 1990, with a maximum hourly consumption of 148.53 pounds of wire, and exhausting inside.

- (2) Seven (7) TIG manually operated welding stations, identified as W-2, constructed in 1990, with a maximum hourly consumption of 9.85 lbs/hr of electrode each, and maximum capacity of less than six hundred twenty-five (625) pounds of rod or wire consumed per day each, exhausting inside.
- (3) Two (2) Laser cutting stations each with a maximum capacity of less than 3,400 inches/ hour, of stock one (1) inches thickness, identified as LC-1 and LC-2, constructed in 1996, equipped with downdraft filters and exhausting through stack S2.
- (4) One (1) plasma cutting unit, identified as PC-1, equipped with downdraft filters and exhausting through stack S3.

Enforcement Issues

IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. IDEM is reviewing this matter and will take the appropriate action. This proposed approval is intended to satisfy the requirements of the construction permit rules.

As part of this TSD, the potential to emit air pollutants was reevaluated (see Emission Calculations and Permit Level Determination – MSOP). Based on the updated emission calculations, the source has the potential to emit air pollutants greater than the Registration threshold levels under 326 IAC 2-6. The source will be issued a Minor Source Operating Permit (MSOP).

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

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Permit Level Determination – MSOP

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	Uncontrolled Potential Emissions (Tons/year)								
	PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO	Total HAPs	Worst Single HAP
Spray Booth, SB -1	22.56	22.56	22.56	0.0	0.0	12.41	0.0	negl.	negl.
Powder spray Booth PCB-1	15.23	15.23	15.23	0.0	0.0	0.0	0.0	negl.	negl.
Abrasive Blasting (3) , AB-1, AB-2 and AB-3	68.35	47.84	47.84	0.0	0.0	0.0	0.0	0.0	0.0
One (1) MIG W-1 seven (7) TIG welding units W-2	8.11	8.11	8.11	0.0	0.0	0.0	0.0	1.01	Manganese (1.01)
Thermal Cutting LC-1 and LC-2, LC-3	0.57	0.57	0.57	0.0	0.0	0.0	0.0	0.0	0.0
Generator Testing (G-1)	0.34	0.28	0.28	0.03	15.71	0.44	4.17	negl.	negl.
Natural Gas Combustion (Drying Oven DO-1 and Pyrolysis Cleaning Furnace PF-1)	1.29	1.29	1.29	0.44	1.33	0.57	2.10	0.02	n-Hexane (0.02)
Total PTE of Entire Source	116.45	95.88	95.88	0.47	17.05	13.42	6.27	1.03	1.01
MSOP	N/A	100	-	100	100	100	100	25	10
Title V Major Source Thresholds	NA	100	-	100	100	100	100	25	10
PSD Major Source Thresholds	250	250	-	250	250	250	250	NA	NA
negl. = negligible These emissions are based upon Registration No. 181-13600-00038 on January 16, 2002 and Second Notice-Only Change No. 181-17458-00038, issued on August 21, 2003. * 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.									

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of PM10 and PM2.5 are each less than one hundred (100) tons per year, but greater than or equal to twenty-five (25) tons per year. The PTE of all other regulated criteria pollutants are less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. A Minor Source Operating Permit (MSOP) 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

The federal rule applicability for this revision is as follows:

New Source Performance Standards (NSPS)

- (a) The requirements of the New Source Performance Standard 40 CFR Part 60, Subpart E, Standards of Performance for Incinerators (326 IAC 12) is not applicable for the one (1) pyrolysis cleaning furnace because it has a charging rate less than 50 tons per day and does not burn refuse consisting of more than 50 percent municipal type waste (household, commercial/retail, and/or institutional waste).
- (b) The requirements of the following New Source Performance Standards (NSPS) are not included in the permit, because the pyrolysis cleaning furnace is not considered a municipal waste combustor or hospital/medical/infectious waste incinerator:
 - (1) 40 CFR 60, Subpart Ea, Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After December 20, 1989 and on or Before September 20, 1994 (326 IAC 12).
 - (2) 40 CFR 60, Subpart Eb, Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996 (326 IAC 12).
 - (3) 40 CFR 60, Subpart Ec, Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996 (326 IAC 12).
 - (4) 40 CFR 60, Subpart AAAA, Standards of Performance for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001 (326 IAC 12).
 - (5) 40 CFR 60, Subpart BBBB, Emission Guidelines and Compliance Times for Small Municipal Waste Combustion Units Constructed on or Before August 30, 1999 (326 IAC 12).
- (c) The one (1) pyrolysis cleaning furnace, constructed in 2003, is exempt from the requirements of the New Source Performance Standard, 40 CFR Part 60, Subpart CCCC, Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001 (326 IAC 12), because pursuant to 40 CFR 60.2020(k) it is considered a parts reclamation unit.
- (d) The requirements of the New Source Performance Standard for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart IIII (326 IAC 12), are not included for this proposed revision, since this source is not a manufacturer, owner, or operator of stationary compression ignition internal combustion engines.
- (e) There are no other New Source Performance Standards (NSPS)(40 CFR Part 60) included for this proposed revision.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (f) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63.6585, Subpart ZZZZ (326 IAC 20-82), are not included for this proposed revision, since this source has the potential to emit less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs.

- (g) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Engine Test Cell/Standards, 40 CFR 63.9285, Subpart PPPPP (326 IAC 20-75), are not included for this proposed revision, since this source has the potential to emit less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs.
- (h) The requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 63, Subpart EEE (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors) (326 IAC 20-28) are not included in the proposed revised permit for the pyrolysis cleaning furnace because it does not meet the definition of a hazardous waste incinerator and the source is not a major source for HAPs.
- (i) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for surface coating of Miscellaneous Metal Parts and Products, 40 CFR 63, Subpart MMMM (326 IAC 20-80-1) are not included in the permit, since this source is not a major source of HAPs as defined in 40 CFR 63.
- (j) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPS), 40 CFR 63, 11169 Subpart HHHHHH, surface coating or paint stripping and miscellaneous surface coating operations at area source (40CFR Part 63.11169), because this source is not involved in the use of chemical strippers that contain methyl chloride (MeCl) in paint removal process, and the surface coating used at this source do not contain chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd).
- (k) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPS), 40 CFR Part 63.11514, Subpart XXXXXX (National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories) are not included in the permit, because this source does not contain materials that contain or have the potential to emit metals, defined to be the compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd), in the amounts greater than or equal to 0.1 percent by weight (of the metal), and materials that contain manganese in amounts greater than or equal to 1.0 percent by weight (of the metal).
- (l) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included for this proposed revision.

Compliance Assurance Monitoring (CAM)

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the potential to emit of the source is limited to 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 proposed revision:

- (a) 326 IAC 2-6.1 (Minor Source Operating Permits (MSOP))
MSOP applicability is discussed under the Permit Level Determination – MSOP section above.
- (b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
This source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit of all attainment regulated pollutants are less than 250 tons per year, and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.
- (c) 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.

- (d) 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.
- (e) 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.
- (f) 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.

Paint booth SB-1:

- (a) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2(d), particulate from the one (1) paint booth, identified as SB-1, shall be controlled by dry filters, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:

- (1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
- (2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

- (b) 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)
Pursuant to 326 IAC 8-2-1 (Applicability), this rule applies to facilities constructed after July 1, 1990 located in any county, and with actual VOC emissions of greater than fifteen (15) pounds per day before add-on controls.

This source performs miscellaneous metal coating operations as described in 326 IAC 8-2-1(a)(4) and has actual emissions of greater than fifteen (15) pounds of VOC per day before add-on controls and is therefore subject to 326 IAC 8-2-9.

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

Based on information provided by the source and the calculations, (see TSD, Appendix A) the Permittee is able to comply with the VOC limits.

- (c) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
The requirements of 326 IAC 8-1-6 do not apply, because 326 IAC 8-2-9 already applies to the coating process.

Powder Spray Booth PCB-1:

- (d) 326 IAC 6-3-2 (e) (Particulate Emission Limitations for Manufacturing Processes)
The particulate matter (PM) from the powder spray booth, identified as PCB-1, shall be limited to less 0.78 pounds per hour, when operating at a process weight rate of 0.084 tons per hour.

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 respective cartridge filtration system, must be in operation at all times when the powder spray booth is in operation in order to comply with this limit. The Permittee shall operate the control device in accordance with manufacturer's specifications.

Abrasive Blasting operations AB-1, AB-2 and AB-3:

- (e) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
 - (1) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the two (2) abrasive blaster operations, identified as AB-1 and AB-2, shall be limited to 5.53 pounds per hour combined when operating at a combined process weight rate of 1.56 tons/hour.
 - (2) Pursuant to 326 IAC 6-3-2, the manual abrasive blaster operation, identified as AB-3, is exempt from the requirements of 326 IAC 6-3, because the potential particulate emissions are less than five hundred fifty-one thousandths (0.551) pound per hour.

The pound per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rates 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 = process weight rate in tons per hour

The respective control system, must be in operation at all times when the blasting operations, AB-1 and AB-2 are in operation in order to comply with this limit. The Permittee shall operate the control device in accordance with manufacturer's specifications.

Laser cutting and welding operations LC-1, LC-2, LC-3, W-1 and W-2:

- (f) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
- (1) Pursuant to 326 IAC 6-3-1(b)(9), the X48 arc flame cutting stations, identified as LC-1, LC-2, LC-3, are each exempt from the requirements of 326 IAC 6-3, because the maximum capacity of the torch cutting operation each is less than three thousand four hundred (3,400) inches per hour of stock one (1) inch thickness or less is cut.
 - (2) Pursuant to 326 IAC 6-3-1(b)(9), the seven (7) TIG welding stations, identified as W-2, are each exempt from the requirements of 326 IAC 6-3, because the potential to consume welding wire is less than six hundred twenty-five (625) pounds per day each.
 - (3) Pursuant to 326 IAC 6-3-2(e), the allowable particulate emissions from MIG operations, identified as W-1, shall be calculated using the following equation:

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

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

Diesel Generator Quality Assurance Testing Operation G-1:

- (g) 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)
The diesel generator set is not subject to 326 IAC 6-2, since it is not a source of indirect heating.
- (h) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
The diesel generator set is exempt from the requirements of 326 IAC 6-3, because, pursuant to 326 IAC 1-2-59, liquid and gaseous fuels and combustion air are not considered as part of the process weight.
- (i) 326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations)
This source is not subject to 326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations) because the potential to emit sulfur dioxide from the diesel generator set is less than twenty-five (25) tons per year and ten (10) pounds per hour.
- (j) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
The proposed revision is not subject to the requirements of 326 IAC 8-1-6, since the potential VOC emissions from the diesel generator set is less than twenty-five (25) tons per year.
- (k) There are no other 326 IAC 8 Rules that are applicable to the diesel generator set.
- (l) 326 IAC 9-1-1 (Carbon Monoxide Emission Limits)
The diesel generator set is not subject to 326 IAC 9-1-1 (Carbon Monoxide Emission Limits) because there is no applicable emission limit for the source under 326 IAC 9-1-2.
- (m) 326 IAC 10-1-1 (Nitrogen Oxides Control)
The diesel generator set is not subject to 326 IAC 10-1-1 (Nitrogen Oxides Control) because the source is not located in Clark or Floyd counties.

- (n) 326 IAC 10-5-1 (Nitrogen Oxide Reduction Program for Internal Combustion Engines (ICE))
The diesel generator set is not subject to 326 IAC 10-5-1 (Nitrogen Oxide Reduction Program for Internal Combustion Engines (ICE)) because it is not large NOx SIP Call engines, as defined in 326 IAC 10-5-2(4).

Natural Gas Combustion sources - Pyrolysis Cleaning Furnace (PF-1) and Drying oven (DO-1).:

- (o) 326 IAC 4-2-2 (Incinerators)
The natural gas fired controlled pyrolysis cleaning furnace, PF-1 is subject to the requirements of 326 IAC 4-2-1 because it meets the definition of an incinerator provided in 326 IAC 1-2-34 and is not subject to any of the rules identified in 326 IAC 4-2-1(b)(2).

Pursuant to 326 IAC 4-2, the pyrolysis cleaning furnace shall:

- (1) Consist of primary and secondary chambers or the equivalent;
 - (2) Be equipped with a primary burner unless burning wood products;
 - (3) Comply with 326 IAC 5-1 and 326 IAC 2;
 - (4) 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); and
 - (5) Not emit particulate matter in excess of one (1) of the following:
 - (A) Three-tenths (0.3) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions correct to fifty percent (50%) excess air for incinerators with solid waste capacity of greater than or equal to two hundred (200) pounds per hour.
 - (B) Five-tenths (0.5) pounds 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 of less than two hundred (200) pounds per hour.
 - (6) If any requirements of 326 IAC 4-2-2(a)(1) through 326 IAC 4-2-2(a)(5) above are not met, the Permittee shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.
- (p) 326 IAC 9-1-2 (Carbon Monoxide Emission Limits)
The natural gas fired controlled pyrolysis cleaning furnace is subject to 326 IAC 9-1-2 (Carbon Monoxide Emission Limits) because this unit is a stationary source of carbon monoxide constructed after March 21, 1972 and subject to the requirements of 326 IAC 9-1-2(a)(3).
- Pursuant to 326 IAC 9-1-2 (Carbon Monoxide Emission Limits), the Permittee shall not operate the pyrolysis cleaning furnace unless the waste gas stream is burned in one of the following:
- (1) Direct-flame afterburner; or
 - (2) Secondary chamber.
- (q) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b)(14), the natural-gas fired drying oven, identified as D0-1 is exempt from the requirements of 326 IAC 6-3, because it has a potential particulate emissions less than five fifty-one thousands (0.551) pounds per hour.

- (r) 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)
 The natural gas-fired oven, D0-1 is not subject to 326 IAC 6-2, since it is not a source of indirect heating.
- (s) 326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations)
 This source is not subject to 326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations) because the potential to emit sulfur dioxide from the natural-gas oven is less than twenty-five (25) tons per year and ten (10) pounds per hour.

Compliance Determination, Monitoring and Testing Requirements

No stack test is required for this source because compliance with the MSOP limit for VOC can be determined by evaluating MSDSs and keeping records of the amount of VOC applied. The use of dry filters ensures compliance with 326 IAC 2-6.1-5 (MSOP) and 326 IAC 6-3 (Process Operations). The compliance monitoring requirements included in the permit should ensure compliance with these rules.

The compliance monitoring requirements applicable to abrasive blaster units , AB-1 and AB-2 are as follows:

Emission Unit/Control	Parameter	Frequency	Range	Excursions and Exceedances
Abrasive Blasters (AB-1, AB-2) /Baghouse (B-1) stack 6	Water Pressure Drop	Daily	3.0 to 6.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	

Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

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 February 5, 2009, and additional information received on February 11, 2009, and February 19, and March 4, 2009.

The construction and operation of this source shall be subject to the conditions of the attached proposed New Source Review and MSOP No. 181-27457-00038. The staff recommends to the Commissioner that this New Source Review and MSOP be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Swarna Prabha 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) 234-5376 or toll free at 1-800-451-6027 extension 4-5376.
- (b) A copy of the findings is available on the Internet at: www.in.gov/idem/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: Gritz Industries, Inc.
Address City IN Zip: 5262 N. East Shafer Drive, Monticello, IN 47960
MSOP No.: 181-27457-00038
Reviewer: Swarna Prabha**

Uncontrolled Potential Emissions (tons/year)									
Emissions Generating Activity									
Category	Pollutant	Spray Paint Booth SB-1	Powder coating PCB-1	Abrasive Blasting AB-1, AB-2, AB-3	MIG and TIG Welding W-1, W-2	Thermal cutting LC-1, LC-2, PC-1	Generator testing G-1	Natural gas Combustion D0-1, PF-1	TOTAL
Criteria Pollutants	PM	22.56	15.23	68.35	8.11	0.57	0.34	1.29	116.45
	PM10	22.56	15.23	47.84	8.11	0.57	0.28	1.29	95.88
	SO2						0.025	0.44	0.47
	NOx						15.71	1.33	17.05
	VOC	12.41					0.44	0.57	13.42
	CO						4.17	2.10	6.27
Hazardous Air Pollutant	n-Hexane							0.02	0.02
	Chromium							1.2E-05	1.2E-05
	Manganese				1.01			3.3E-06	1.0E+00
	Nickel							1.8E-05	1.8E-05
	Toluene							2.9E-05	2.9E-05
	Napthalene						6.38E-04		6.4E-04
	Dichlorobenzene							1.0E-05	1.0E-05
	Formaldehyde							6.4E-04	6.4E-04
	Lead							4.3E-06	4.3E-06
	Cadmium							9.4E-06	9.4E-06
Totals					1.01		6.4E-04	6.7E-04	1.03

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

Controlled Potential Emissions (tons/year)									
Emissions Generating Activity									
Category	Pollutant	Spray Paint Booth SB-1, SB2	Powder coating PCB-1	Abrasive Blasting AB-1, AB-2, AB-3	MIG and TIG Welding W-1, W-2	Thermal cutting LC-1, LC-2, PC-1	Generator testing G-1	Natural gas Combustion D0-1, PF-1	TOTAL
Criteria Pollutants	PM	0.11	1.52	16.29	8.11	0.006	0.342	1.29	27.68
	PM10	0.11	1.52	11.41	8.11	0.006	0.281	1.29	22.73
	SO2						0.02	0.4	0.47
	NOx						15.71	1.3	17.05
	VOC	12.41	0.00				0.44	0.57	13.42
	CO						4.17	2.10	6.27
Hazardous Air Pollutants	n-Hexane							0.02	0.02
	Chromium							1.2E-05	1.2E-05
	Manganese				1.01			3.3E-06	1.0E+00
	Nickel							1.8E-05	1.8E-05
	Toluene							2.9E-05	2.9E-05
	Napthalene						6.38E-04		6.4E-04
	Dichlorobenzene							1.0E-05	1.0E-05
	Formaldehyde							6.4E-04	6.4E-04
	Lead							4.3E-06	4.3E-06
	Cadmium							9.4E-06	9.4E-06
Totals					1.01		6.4E-04	6.7E-04	1.03

There are no emission factors in AP42 for PM2.5, PM10 = PM2.5

1. On May 8, 2008 U. S. EPA promulgated the new 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 IAC2-2, to include those requirements. 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 .

**Appendix A: Emission Calculations
Spray Paint Booth**

TSD Appendix A: Page 2 of 9

Company Name: Girtz Industries, Inc.
Address City IN Zip: 5262 N. East Shafer Drive, Monticello, IN 47960
MSOP NO.: 181-27457-00038
Prepared by : Cornerstone Environmental, Health & Safety, Inc.
Reviewer: Swarna Prabha

Material ID	Product Density (lb/gal)	Volatile Content - Water & Organics (wt%)	Water Content (wt%)	Organics Content (wt%)	Solids Content (vol%)	Max Coating Usage (gal/unit)	*Max Throughput (units/yr)	VOC Content less Water (lbs/gal)	VOC Content (lbs/gal)	Potential VOC Emission Rate (lbs/hr)	Potential VOC Emissions (tons/yr)	Potential PM Emissions (tons/yr)	Transfer Efficiency
Intercure 99	10.51	15.40%	0.0%	15.40%	80.00%	14.00	1095	1.62	1.62	2.83	12.41	22.56	65%

Potential to Emit VOC from Clean-Up

Material ID	Density (lbs/gal)	VOC Content (wt%)	Max Usage (gal/yr)	VOC Emission Rate (lbs/hr)	VOC Emissions (tons/yr)
Acetone	6.58	0%	5327.00	0.00	0.00

Potential to Emit HAP from Coating and Clean-Up

Material ID	Density (lbs/gal)	HAP Constituent	HAP Content (wt%)	HAP Content (lbs/gal)	HAP Emissions (lbs/hr)	HAP Emissions (tons/yr)
Intercure 99	10.51	N/A	0.00%	0.00	0.00	0.00
Acetone	6.58	N/A	0.00%	0.00	0.00	0.00

PTE Summary

PTE Summary for Spray Booth	VOC (tons/yr)	PM (tons/yr)	Single HAP (tons/yr)	Combined HAPs (tons/yr)
Uncontrolled	12.41	22.56	0.00	0.00
Controlled (PM w/dry filter at 99.5% eff)	N/A	0.11	N/A	N/A

Notes:

The 40' ISO containers require the most coating at 14 gallons per container and 10 gallons of primer per container. Girtz has stated that 3 containers per day is the estimated max throughput due to the abrasive blasting bottleneck. * Maximum throughput = 3 units/ day * 365 days/yr = 1,095 units/yr
Intercure 99 is a single step coating, therefore no primer is required.
Air Assisted Airless spray gun is used to coat the containers.

Methodology

Pounds of VOC per Gallon Coating = [Density (lb/gal)] * [Weight % VOCs]
PTE of VOC (lbs/hr) = [Maximum Usage (lbs/hr)] * [Weight % VOCs]
PTE of VOC (lbs/day) = [PTE of VOC (lbs/hr)] * [24 hours/day]
PTE of VOC (tons/yr) = [PTE of VOC (lbs/day)] * [(365 days/yr)] * [1 ton/2000 lbs]
PTE of PM/PM10 (tons/yr) = [Density (lbs/gal)] * [Maximum Usage (gal/day)] * [(Weight % Solids)] * [1 - Transfer efficiency]] * [365 days/yr] * [1 ton/2000 lbs]
Pounds VOC per Gallon of Solids = [Density (lbs/gal)] * [Weight % VOCs] / [Volume % solids]

**Appendix A: Emission Calculations
Powder Coating**

TSD Appendix A: Page 3 of 9

Company Name: Girtz Industries, Inc.
Address City IN Zip: 5262 N. East Shafer Drive, Monticello, IN 47960
MSOP NO.: 181-27457-00038
Prepared by : Cornerstone Environmental, Health & Safety, Inc.
Reviewer: Swarna Prabha

Material ID	Application Type	Solids (wt %)	**Maximum Throughput (lb/hr)	*Transfer Efficiency (%)	PM Emissions Before Control (lb/hr) (1)	PM Emissions Before Control (tpy) (2)	Control Efficiency (%)	PM Emissions After Control (lb/hr) (3)	PM Emissions After Control (tpy) (4)
Powder Coating	Electrostatic	100.0%	11.6	70.0%	3.48	15.23	90.0%	0.35	1.52

Notes:

Powder coated parts size varies from very small parts to larger parts. The source coats 2 units per day (24 hrs. per day)
Average weight of units coated per day is 4000 lbs/day equivalent to 167 lbs/hr.

*The minimum efficiency for electrostatic Airless gun = 70 %

The coating powder contains no VOC or HAPs

ITW Gema technical services manager estimates max throughput of 175-200 grams per minute.

200 g/min used as a conservative approach, which is 26.5 lb/hr.

** Powder coat operation is a batch process and only coats 26.25 min/hr.

Max Throughput (lb/hr) = 26.5 (lb/hr) x (26.25/60) = 11.6 (lb/hr)

Torit ECB-1 with Ultra Web filter has MERV of 13 (90% efficiency)

Methodology:

- (1) PM Emissions Before Control (lb/hr) = Max Throughput (lb/hr) x Solids (wt %) x (1-Transfer Efficiency)
- (2) PM Emissions Before Control (tpy) = PM Emissions Before Control (lb/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)
- (3) PM Emissions After Control (lb/hr) = Max Throughput (lb/hr) x Solids (wt %) x (1-Transfer Efficiency) x (1-Control Efficiency)
- (4) PM Emissions After Control (tpy) = PM Emissions (lb/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)

**Appendix A: Emission Calculations
Abrasive Blasting Room**

Company Name: Girtz Industries, Inc.
Address City IN Zip: 5262 N. East Shafer Drive, Monticello, IN 47960
MSOP NO.: 181-27457-00038
Prepared by : Cornerstone Environmental, Health & Safety, Inc.
Reviewer: Swarna Prabha

Abrasive Blasting Cabinet AB-1 and AB-2

Nozzle Pressure (psig)	Internal Diameter (inches)	(1) Flow Rate (lb/hr)	(2) Emission Factor (lb PM/lb abrasive)	(3) PTE of PM (ton/yr)	(5) Emission Factor (lb PM ₁₀ /lb PM)	(6) PTE PM ₁₀ (ton/yr)	Torit filter efficiency	Baghouse B1	Controlled PM (ton/yr)	Controlled PM ₁₀ (ton/yr)
110	0.44	594.83	0.010	26.05	0.7	18.24	90%	99.0%	0.026	0.018
110	0.44	594.83	0.010	26.05	0.7	18.24	90%	99.0%	0.026	0.018
Abrasive Blasting Cabinet AB-3⁽⁴⁾										
	Internal Diameter (inches)	(1) Flow Rate (lb/hr)	(2) Emission Factor (lb PM/lb abrasive)	(3) PTE of PM (ton/yr)	(5) Emission Factor (lb PM ₁₀ /lb PM)	(6) PTE PM ₁₀ (ton/yr)				
	120	0.25	370.80	0.010	16.24	0.7	11.37	0%	16.24	11.37
Total Blaster Emissions				68.35		47.84	0%		16.29	11.41

Additional Notes:

- "Stappa Alapco, Section 3: Abrasive Blasting" was used to calculate emissions.
 Table 3-3 illustrates "Flow Rate of Sand Through a Blasting Nozzle as a Function of Nozzle Pressure and Internal Diameter"
 Table 3-3 is specific to nozzle pressures from 30 to 100 psig in 10 psig increments.
 (1) Therefore, Equation 3.1 was used to estimate flow rates at 95 psig, 105 psig, and 120 psig.
 Equation 3.1: Flow Rate (lb/hr) = FR1 x (ID/ID1) x (D/D1); where FR1 = 309 lb/hr, ID1 = 0.25 inches, D1 = 100 psig
 (2) Emission Factors from "Stappa Alapco, Section 3: Abrasive Blasting", Table 3-1.
 EF for grit is 20 lb per ton of abrasive: 20/2000 = 0.01 lbPM / lb Abrasive
 (3) PTE PM Emissions (tpy) = Flow Rate (lb/hr) x 8760 (hr/yr) x 0.010 (lb PM / lb abrasive) / 2000 (lb/ton)
 (4) The Abrasive Blasting Cabinet is exempt pursuant to 326 IAC 2.1-1.3(e)(26)
 (5) Emission Factors from "Stappa Alapco, Section 3: Abrasive Blasting", Table 3-1.
 EF for PM10 is 0.70 pounds per pound of PM
 (6) PM10 (tpy) = PM (tpy) x PM10/PM emission factor
 Controlled PM/PM10 (ton/yr) = PTE PM/PM10 (tons.yr) * (1- control efficiency)

Appendix A: Emission Calculations

Emissions based on Maximum Rated Capacity of Welders

TSD Appendix A: Page 5 of 9

Company Name: Girtz Industries, Inc.
Address City IN Zip: 5262 N. East Shafer Drive, Monticello, IN 47960
MSOP NO.: 181-27457-00038
Prepared by : Cornerstone Environmental, Health & Safety, Inc.
Reviewer: Swarna Prabha

MIG Welding

Wire Diameter (in)	0.045
Wire Feed Rate (ipm)	220
Density (lb/in ³)	0.283
Feed Rate (in ³ /min)	0.35
Feed Rate (lb/min)	0.10
Feed Rate (lb/hr)	5.94
MIG Welding Stations	25

Potential Weld Wire Usage (lbs/hr)	Percent of Electrode Converted to Fume (%)	Fume (PM) /(PM10) Generated (lbs/hr)	Percent Manganese in fume (%)	Manganese Emissions (lbs/hr)	Potential PM/PM ₁₀ Emissions (tpy)	Potential Manganese Emissions (tpy)
148.53	1.2%	1.78	12.6%	0.22	7.81	0.98

TIG Welding

Wire Diameter (in)	0.09375
Wire Feed Rate (ipm)	12
Density (lb/in ³)	0.283
Feed Rate (in ³ /min)	0.08
Feed Rate (lb/min)	0.02
Feed Rate (lb/hr)	1.41
TIG Welding Stations	7

Potential Weld Wire Usage (lbs/hr)	Percent of Electrode Converted to Fume (%)	Fume (PM) /(PM10) Generated (lbs/hr)	Percent Manganese in fume (%)	Manganese Emissions (lbs/hr)	Potential PM/ PM ₁₀ Emissions (tpy)	Potential Manganese Emissions (tpy)
9.85	0.7%	0.07	8.8%	0.01	0.30	0.03

Total **8.11** **1.01**

Notes :

Fume generation and percent Manganese in fume emission factors were obtained from "Guide for Estimating Welding Emissions for EPA and Ventilation Permit Reporting" published by the American Welding Society

MIG Weld Wire - 045 7100 Ultra Dual Shield (0.045 in diameter at 220 in/min)

Tech Data Sheet states MIG Weld Wire has an AWS Classification of E71T-1

TIG Weld Wire - 035 Super Arc (3/32 in (0.094 in) diameter at 12 in/min)

MSDS states TIG Weld Wire has an AWS Classification of ER70S-6

Methodology:

$$\text{vol} = \pi \times r^2 \times h$$

$$\text{Feed Rate [in}^3\text{/min]} = \pi \times (\text{Wire Diameter [in]} / 2)^2 \times \text{Wire Feed Rate [in/min]}$$

$$\text{Feed Rate [lb/min]} = \text{Feed Rate [in}^3\text{/min]} \times \text{Density [lb/in}^3\text{]}$$

$$\text{Feed Rate [lb/hr]} = \text{Feed Rate [lb/min]} \times 60 \text{ [min/hr]}$$

$$\text{Potential Weld Wire Usage [lbs/hr]} = \text{Feed Rate [lb/hr]} \times \text{\# of Welding Stations}$$

$$\text{Fume Generated [lbs/hr]} = \text{Potential Weld Wire Usage [lbs/hr]} \times \text{Electrode Converted to Fume [wt \%]}$$

$$\text{Potential PM Emissions [tpy]} = \text{Fume Generated [lbs/hr]} \times 8760 \text{ [hr/yr]} / 2000 \text{ [lb/ton]}$$

**Appendix A: Emission Calculations
Emissions from Thermal Cutting Processes**

Company Name: Girtz Industries, Inc.
Address City IN Zip: 5262 N. East Shafer Drive, Monticello, IN 47960
MSOP NO.: 181-27457-00038
Prepared by : Cornerstone Environmental, Health & Safety, Inc.
Reviewer: Swarna Prabha

Mazak Superturbo X48 Laser Cutter

Maximum Number of Torches Simultaneously Cutting = 1
 Maximum Metal Thickness [in] = 0.50
 Maximum Metal Thickness [mm] = 12.7
 Maximum Cutting Rate [in/min] = 20.0
 Maximum Cutting Rate [mm/min] = 508

Pollutant	Emission Factor (lb/1,000 inches cut, 35 mm thick) ^{(1) (3)}	Maximum Emissions Rate (lb/hr) ⁽⁴⁾	Maximum Emissions Rate After Control (lb/hr) ⁽⁴⁾	Potential Emissions (tpy) ⁽⁵⁾	Control Efficiency (%)	Potential Emissions After Control (tpy)
PM	0.030	0.02	0.0002	0.08	99%	0.001
PM ₁₀	0.030	0.02	0.0002	0.08	99%	0.001

Mazak Superturbo X48 Laser Cutter

Maximum Number of Torches Simultaneously Cutting = 1
 Maximum Metal Thickness [in] = 0.50
 Maximum Metal Thickness [mm] = 12.7
 Maximum Cutting Rate [in/min] = 20.0
 Maximum Cutting Rate [mm/min] = 508

Pollutant	Emission Factor (lb/1,000 inches cut, 35 mm thick) ^{(1) (3)}	Maximum Emissions Rate (lb/hr) ⁽⁴⁾	Maximum Emissions Rate After Control (lb/hr) ⁽⁴⁾	Potential Emissions (tpy) ⁽⁵⁾	Control Efficiency (%)	Potential Emissions After Control (tpy)
PM	0.030	0.02	0.0002	0.08	99%	0.001
PM ₁₀	0.030	0.02	0.0002	0.08	99%	0.001

Messer Plasma Cutter

Maximum Number of Torches Simultaneously Cutting = 1
 Maximum Metal Thickness [in] = 1.50
 Maximum Metal Thickness [mm] = 38.1
 Maximum Cutting Rate [in/min] = 35.0
 Maximum Cutting Rate [mm/min] = 889

Pollutant	Emission Factor (lb/1,000 inches cut, 35 mm thick) ^{(1) (3)}	Maximum Emissions Rate (lb/hr) ⁽⁴⁾	Maximum Emissions Rate After Control (lb/hr) ⁽⁴⁾	Potential Emissions (tpy) ⁽⁵⁾	Control Efficiency (%)	Potential Emissions After Control (tpy)
PM	0.030	0.09	0.0009	0.41	99%	0.004
PM ₁₀	0.030	0.09	0.0009	0.41	99%	0.004
Combined Laser cutting						
PM				0.57		0.006
PM10				0.57		0.006

Additional Notes

- (1) Emission factors are from "Emission of Fume, Nitrogen Oxides and Noise in Plasma Cutting of Stainless and Mild Steel" by Broman B. et al, The Swedish Institute of Production Engineering Research, ITW Document 1E-174-93, March 1994
 (2) Semidry Cutting EF [lb/1,000 inches cut, 35 mm thick] = 0.2 [g/min] (avg) / 0.375 [m/min] (avg) x 0.0022 [lb/g] / 39.37 [in/m] x 1,000 [in] = 0.030 [lb/1,000 inches cut, 35 mm thick]
 (3) Dry Cutting EF [lb/1,000 inches cut, 35 mm thick] = 2.6 [g/min] (avg) * (1-25% for Oxygen as plasma gas) / 3.6 [m/min] (avg) x 0.0022 [lb/g] / 39.37 [in/m] x 1,000 [in] = 0.03 [lb/1,000 inches cut, 35 mm thick]
 (4) Maximum Emissions Rate [lb/hr] = Number of Torches x Maximum Metal Thickness [in] x Maximum Cutting Rate [in/min] / 1,000 [in/1,000 in] x 60 [min/hr] x Emission Factor [lb/1,000 inches cut, thickness]
 (5) Potential Emissions [tpy] = Maximum Emissions Rate [lb/hr] x 8,760 [hr/yr] / 2,000 [lb/ton]
 Messer Plasma Cutter max thickness, rate from Vendor

Appendix A: Emission Calculations
Cummins DQKAB Diesel Generator Set Testing Station - Only Standby, 2000 kW

TSD Appendix A: Page 7 of 9

Company Name: Girtz Industries, Inc.
Address City IN Zip: 5262 N. East Shafer Drive, Monticello, IN 47960
MSOP NO.: 181-27457-00038
Prepared by : Cornerstone Environmental, Health & Safety, Inc.
Reviewer: Swarna Prabha

Internal Combustion Engines - Diesel Fuel generator (> 600 HP)

Maximum Amount of Test Runs (runs/mo)	120
Maximum Length of Test Run (min/run) per generator	60
Maximum Amount of Testing (hr/yr)	1,440
Power Output Rating of Generator (kW)	2,000
Power Output Rating of Generator (hp)	2,680
Power Output Rating of Generator (MMBtu/hr)	6.82

Pollutant	Emission Factors (lb/MM Btu)	PTE (lb/yr)	PTE (tpy)
PM	0.0697	684.51	0.34
PM10	0.0573	562.73	0.28
NO _x	3.2	31426.56	15.71
SO _x **	0.00505	49.60	0.02
CO	0.85	8347.68	4.17
VOC	0.09	883.87	0.44
Napthalene*	1.3E-04	1.28	0.0006
Phenanthrene/anthracene*	4.1E-05	0.40	0.0002
Pyrene*	3.7E-06	0.04	0.0000
Benz(a)anthracene/chrysene*	3.5E-07	0.00	0.0000
Benzo(a)pyrene	2.6E-07	0.00	0.0000
Combined HAPs		1.72	0.0009

Notes:

- Bottlenecks in process limit the maximum number of generators QA/QC tested to 120 per month.
Vendor supplied generators are tested before they are put in a metal enclosure.
- Emission Factors are from AP-42 Table 3.4-1 and Table 3.4-2 , particulate and particle-sizing for large Uncontrolled stationary diesel engines SCC 2-02-004-01
- Total PM-10 is the sum of filterable particulate less than 10 µm aerodynamic diameter and condensable particulate
Total particulate is the sum of the total filterable particulate and condensable particulate.
- * Emission factors are from AP-42, Table 3.4-4 Hazardous air pollutant and are based on steady-state operating conditions and #2 diesel fuel combustion.
- ** Sulfur content is assumed to be 0.005 for #2 diesel fuel

Methodology:

PTE (lb/yr) = Emission Factor (lb/MM Btu) x Power Rating (MMBtu/hr) x Maximum Amount of Testing (360 hr/yr)
PTE (tpy) = PTE (lb/yr) / 2000 (lb/ton)
An average conversion factor of 1hp-hr = 7,000Btu

Appendix A: Emission Calculations
Natural gas fired drying oven

Company Name: Girtz Industries, Inc.
Address City IN Zip: 5262 N. East Shafer Drive, Monticello, IN 47960
MSOP NO.: 181-27457-00038
Prepared by : Cornerstone Environmental, Health & Safety, Inc.
Reviewer: Swarna Prabha

Description	Total Heat Input Capacity (MMBtu/hr)	Total Max. Potential Throughput (MMCF/yr)
Drying Oven	2.0	17.2

Pollutant Emission Factors (lbs/MMCF)						
PM	PM10*	SO ₂	NO _x **	CO	VOC	HAPs
7.6	7.6	0.6	94	40.0	5.5	1.89

Emission Unit ID	Potential To Emit (tons/yr)						
	PM	PM10	SO ₂	NO _x	CO	VOC	HAPs
Drying Oven	0.065	0.065	0.005	0.81	0.34	0.047	0.016

Hazardous Air Pollutanta (HAPs)

Pollutant	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
Emission Factor (lb/MMCF)	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission tons/yr										
Emission Unit	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
Air Make up Unit H1, Office Heaters H2, H3	1.8E-05	1.0E-05	6.4E-04	1.5E-02	2.9E-05	4.3E-06	9.4E-06	1.2E-05	3.3E-06	1.8E-05
Totals	1.8E-05	1.0E-05	6.4E-04	1.5E-02	2.9E-05	4.3E-06	9.4E-06	1.2E-05	3.3E-06	1.8E-05

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

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

The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.

There is no emission factor for PM2.5 in AP 42, PM10 = PM2.5

Methodology

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

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

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

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu, MMCF = 1,000,000 Cubic Feet of Gas

Abbreviations

PM = Particulate Matter	NO _x = Nitrous Oxides	DCB = Dichlorobenzene	Cr = Chromium
PM10 = Particulate Matter (<10 um)	VOC - Volatile Organic Compounds	Pb = Lead	Mn = Manganese
SO ₂ = Sulfur Dioxide	CO = Carbon Monoxide	Cd = Cadmium	Ni = Nickel
	MMBtu = 1,000,000 Btu		
	MMCF - 1,000,000 Cubic Feet of Gas		
	1000 Btu per cubic foot of natural gas		

**Appendix A: Emission Calculations
Pyrolysis Cleaning Furnace**

Company Name: Girtz Industries, Inc.
Address City IN Zip: 5262 N. East Shafer Drive, Monticello, IN 47960
MSOP NO.: 181-27457-00038
Prepared by : Cornerstone Environmental, Health & Safety, Inc.
Reviewer: Swarna Prabha

THROUGHPUT lbs/hr 80

THROUGHPUT ton/yr 350.4

	POLLUTANT				
	PM	SO2	CO	VOC	NOX
Emission Factor in lb/ton	7.0	2.5	10.0	3.0	3.0
Potential Emissions in ton/yr	1.23	0.44	1.75	0.53	0.53
Combined emissions from Drying Oven and Pyrolysis Cleaning furnace	1.29	0.44	2.10	0.57	1.33

There is no emission factor in AP42, PM10 = PM2.5

Methodology

Emission factors are from AP 42 (5th Edition 1/95) Table 2.1-12, Uncontrolled emission factors for industrial/commercial refuse combustors, multiple chambers

Throughput (lb/hr) * 8760 hr/yr * ton/2000 lb = throughput (ton/yr)