



Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

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

TO: Interested Parties / Applicant  
DATE: March 5, 2007  
RE: Delta Tool Manufacturing, Inc. / 049-23769-00035  
FROM: Nisha Sizemore  
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, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures  
FNPER.dot 03/23/06



Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204-2251  
(317) 232-8603  
(800) 451-6027  
www.in.gov/idem

## New Source Review and a Minor Source Operating Permit OFFICE OF AIR QUALITY

**Delta Tool Manufacturing, Inc.  
3201 Wabash Avenue  
Rochester, Indiana 46975**

(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.

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 an MSOP under 326 IAC 2-6.1.

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.

Operation Permit No.: MSOP 049-23769-00035	
Issued by: <i>Original document          signed by</i> Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: March 5, 2007  Expiration Date: March 5, 2012

## TABLE OF CONTENTS

<b>SECTION A</b>	<b>SOURCE SUMMARY</b> .....	4
A.1	General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]	
A.2	Emission Units and Pollution Control Equipment Summary	
<b>SECTION B</b>	<b>GENERAL CONDITIONS</b> .....	7
B.1	Definitions [326 IAC 2-1.1-1]	
B.2	Permit Term [326 IAC 2-6.1-7(a)] [326 IAC 2-1.1-9.5] [IC 13-15-3-6(a)]	
B.3	Term of Conditions [326 IAC 2-1.1-9.5]	
B.4	Enforceability	
B.5	Severability	
B.6	Property Rights or Exclusive Privilege	
B.7	Duty to Provide Information	
B.8	Certification	
B.9	Annual Notification [326 IAC 2-6.1-5(a)(5)]	
B.10	Preventive Maintenance Plan [326 IAC 1-6-3]	
B.11	Prior Permits Superseded [326 IAC 2-1.1-9.5]	
B.12	Termination of Right to Operate [326 IAC 2-6.1-7(a)]	
B.13	Permit Renewal [326 IAC 2-6.1-7]	
B.14	Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]	
B.15	Source Modification Requirement [326 IAC 2-2-2] [326 IAC 2-3-2]	
B.16	Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)] [IC 13-14-2-2] [IC13-17-3-2] [IC 13-30-3-1]	
B.17	Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]	
B.18	Annual Fee Payment [326 IAC 2-1.1-7]	
B.19	Credible Evidence [326 IAC 1-1-6]	
<b>SECTION C</b>	<b>SOURCE OPERATION CONDITIONS</b> .....	12
	<b>Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]</b>	
C.1	Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]	
C.2	Permit Revocation [326 IAC 2-1.1-9]	
C.3	Opacity [326 IAC 5-1]	
C.4	Open Burning [326 IAC 4-1] [IC 13-17-9]	
C.5	Incineration [326 IAC 4-2] [326 IAC 9-1-2]	
C.6	Fugitive Dust Emissions [326 IAC 6-4]	
C.7	Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]	
	<b>Testing Requirements [326 IAC 2-6.1-5(a)(2)]</b>	
C.8	Performance Testing [326 IAC 3-6]	
	<b>Compliance Requirements [326 IAC 2-1.1-11]</b>	
C.9	Compliance Requirements [326 IAC 2-1.1-11]	
	<b>Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]</b>	
C.10	Compliance Monitoring [326 IAC 2-1.1-11]	
C.11	Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]	
	<b>Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]</b>	
C.12	Malfunctions Report [326 IAC 1-6-2]	
C.13	General Record Keeping Requirements [326 IAC 2-6.1-5]	
C.14	General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]	

**D.1 EMISSIONS UNIT OPERATION CONDITIONS: One (1) Surface Coating Booth, SC ..... 17**

**Emission Limitations and Standards**

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

**Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]**

D.1.2 Record Keeping Requirements

**D.2 EMISSIONS UNIT OPERATION CONDITIONS: Metal Working Facilities..... 18**

**Emission Limitations and Standards**

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

**Compliance Determination Requirements**

D.2.2 Particulate Control

**Certification ..... 20**

**Annual Notification ..... 21**

**Malfunction Report..... 22**

## 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 operates a metal tooling components fabrication source.

Authorized Individual:	Vice President
Source Address:	3201 Wabash Avenue, Rochester, Indiana 46975
Mailing Address:	P.O. Box 241, Rochester, Indiana 46975
General Source Phone Number:	574-223-2503
SIC Code:	3498
County Location:	Fulton
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source under PSD rules Minor Source, Section 112 of the Clean Air Act

### 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) surface coating booth, identified as SC, constructed prior to 1985, using HVLP spray applicators to coat metal parts, equipped with dry filters for particulate control, exhausting to Stack SC, capacity: 0.10 metal parts per hour.
- (b) One (1) shotblast booth, identified as SB, constructed prior to 1985, equipped with a dust collector, identified as DC1, constructed in 2006, exhausting to the general ventilation, capacity: 160 pounds of metal parts per hour.
- (c) Nine (9) metal inert gas (MIG) welding stations, identified as WD1 through WD9, constructed prior to 1985, exhausting to the general ventilation, capacity: 0.60 pounds of weld wire per hour, each.
- (d) One (1) spot welding station, identified as WD10, constructed in 1985, exhausting to the general ventilation, capacity: 150 pounds of metal parts per hour.
- (e) One (1) stick welding station, identified as WD11, constructed in 1985, exhausting to the general ventilation, capacity: 0.10 pounds of electrode consumed per hour.
- (f) Natural gas-fired combustion sources, consisting of the following:
  - (1) Two (2) natural gas-fired forced air space heaters, identified as H1 and H2, constructed prior to 1985, exhausting to Stacks H1 and H2, heat input capacity: 0.200 million British thermal units per hour, each.
  - (2) One (1) natural gas-fired forced air space heater, identified as H3, constructed prior to 1985, exhausting to Stack H3, heat input capacity: 0.400 million British thermal units per hour.

- (3) One (1) natural gas-fired forced air space heater, identified as H4, constructed prior to 1985, exhausting to Stack H4, heat input capacity: 0.100 million British thermal units per hour.
  - (4) One (1) natural gas-fired forced air space heater, identified as H5, constructed prior to 1985, exhausting to Stack H5, heat input capacity: 0.500 million British thermal units per hour.
  - (5) One (1) natural gas-fired forced air space heater, identified as H6, constructed prior to 1985, exhausting to Stack H6, heat input capacity: 0.100 million British thermal units per hour.
  - (6) One (1) natural gas-fired forced air space heater, identified as H7, constructed prior to 1985, exhausting to Stack H7, heat input capacity: 0.150 million British thermal units per hour.
  - (7) One (1) natural gas-fired forced air space heater, identified as H8, constructed prior to 1985, exhausting to Stack H8, heat input capacity: 0.200 million British thermal units per hour.
  - (8) One (1) natural gas-fired forced air space heater, identified as H9, constructed prior to 1985, exhausting to Stack H9, heat input capacity: 0.300 million British thermal units per hour.
  - (9) One (1) natural gas-fired water heater, identified as WH1, constructed prior to 1985, exhausting to the general ventilation, heat input capacity: 0.040 million British thermal units per hour.
- (h) Miscellaneous metal fabrication equipment, identified as MMF, constructed in 1985, consisting of the following:
- (1) Three (3) shearing tools, identified as SR1 through SR3,
  - (2) Four (4) band saws, identified as BS1 through BS4,
  - (3) One (1) plasma cutter, identified as PC1, cutting a maximum metal thickness of 0.179 inches with a maximum cutting rate of 10.0 inches per minute,
  - (4) One (1) arc carbon cutter, identified as CC1, cutting a maximum metal thickness of 0.179 inches with a maximum cutting rate of 10.0 inches per minute,
  - (5) Three (3) presses, identified as PP1 through PP3,
  - (6) Two (2) iron workers, identified as IW1 and IW2,
  - (7) One (1) radial drill, identified as DR1,
  - (8) Four (4) forming brakes, identified as BK1 through BK4,
  - (9) One (1) power roll, identified as PR1,
  - (10) One (1) hand roll, identified as HR1,
  - (11) Three (3) lathes, identified as LT1 through LT3,

- (12) Two (2) vertical mills, identified as VM1 and VM2,
  - (13) Two (2) surface grinders, identified as SFG1 and SFG2,
  - (14) Three (3) drill presses, identified as DP1 through DP3,
  - (15) One (1) tapping unit, identified as TU1, and
  - (16) Eight (8) stamping presses, identified as PP4 through PP11.
- (i) Paved and unpaved roads and parking lots with public access.

## **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 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, 049-23769-00035, 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 13-15-3-3. 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.3 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.4 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.5 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.6 Property Rights or Exclusive Privilege**

---

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

### **B.7 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.8 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.9 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:  
  
Compliance Branch, Office of Air Quality  
Indiana Department of Environmental Management  
100 North Senate Avenue  
Indianapolis, Indiana 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.10 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, 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 Branch, Office of Air Quality  
100 North Senate Avenue  
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.11 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

---

- (a) All terms and conditions of permits established prior to 049-23769-00035 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.12 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 ninety (90) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

**B.13 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  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
  - (1) Submitted at least ninety (90) 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.14 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  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
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.15 Source Modification Requirement**

---

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

**B.16 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)] [IC 13-14-2-2] [IC13-17-3-2] [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.17 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  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
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.18 Annual Fee Payment [326 IAC 2-1.1-7]**

---

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
  
- (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.19 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.

## 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 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on January 19, 2007, consisting of spraying all unpaved roads and parking lots with water on an as needed basis.

C.8 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  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue  
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 Accredited 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 Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

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

#### **C.9 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 Data Section, Office of Air Quality  
100 North Senate Avenue  
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.10 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.11 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.12 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.

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

**C.13 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.14 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.

**C.15 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 Data Section, Office of Air Quality  
100 North Senate Avenue  
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 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

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]: Surface Coating Booth

- (a) One (1) surface coating booth, identified as SC, constructed prior to 1985, using HVLP spray applicators to coat metal parts, equipped with dry filters for particulate control, exhausting to Stack SC, capacity: 0.10 metal parts per hour.

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

### Emission Limitations and Standards

#### D.1.1 Particulate [326 IAC 6-3-2(d)]

- (a) Pursuant to 326 IAC 6-3-2(d), particulate from the one (1) surface coating booth, identified as SC 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 source 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 source 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.

### Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

#### D.1.2 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1, the Permittee shall keep records as required by Condition D.1.1.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## SECTION D.2

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]: Metal Working Facilities

- (b) One (1) shotblast booth, identified as SB, constructed prior to 1985, equipped with a dust collector, identified as DC1, constructed in 2006, exhausting to the general ventilation, capacity: 160 pounds of metal parts per hour.
- (c) Nine (9) metal inert gas (MIG) welding stations, identified as WD1 through WD9, constructed prior to 1985, exhausting to the general ventilation, capacity: 0.60 pounds of weld wire per hour, each.
- (d) One (1) spot welding station, identified as WD10, constructed in 1985, exhausting to the general ventilation, capacity: 150 pounds of metal parts per hour.
- (e) One (1) stick welding station, identified as WD11, constructed in 1985, exhausting to the general ventilation, capacity: 0.10 pounds of electrode consumed per hour.
- (f) Natural gas-fired combustion sources, consisting of the following:
  - (1) Two (2) natural gas-fired forced air space heaters, identified as H1 and H2, constructed prior to 1985, exhausting to Stacks H1 and H2, heat input capacity: 0.200 million British thermal units per hour, each.
  - (2) One (1) natural gas-fired forced air space heater, identified as H3, constructed prior to 1985, exhausting to Stack H3, heat input capacity: 0.400 million British thermal units per hour.
  - (3) One (1) natural gas-fired forced air space heater, identified as H4, constructed prior to 1985, exhausting to Stack H4, heat input capacity: 0.100 million British thermal units per hour.
  - (4) One (1) natural gas-fired forced air space heater, identified as H5, constructed prior to 1985, exhausting to Stack H5, heat input capacity: 0.500 million British thermal units per hour.
  - (5) One (1) natural gas-fired forced air space heater, identified as H6, constructed prior to 1985, exhausting to Stack H6, heat input capacity: 0.100 million British thermal units per hour.
  - (6) One (1) natural gas-fired forced air space heater, identified as H7, constructed prior to 1985, exhausting to Stack H7, heat input capacity: 0.150 million British thermal units per hour.
  - (7) One (1) natural gas-fired forced air space heater, identified as H8, constructed prior to 1985, exhausting to Stack H8, heat input capacity: 0.200 million British thermal units per hour.
  - (8) One (1) natural gas-fired forced air space heater, identified as H9, constructed prior to 1985, exhausting to Stack H9, heat input capacity: 0.300 million British thermal units per hour.
  - (9) One (1) natural gas-fired water heater, identified as WH1, constructed prior to 1985, exhausting to the general ventilation, heat input capacity: 0.040 million British thermal units per hour.

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

### Emission Limitations and Standards

#### D.2.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the one (1) shotblast booth, identified as SB shall not exceed 0.750 pounds per hour when operating at a process weight rate of 160 pounds per hour.

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

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

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

### **Compliance Determination Requirements**

#### **D.2.2 Particulate Control**

---

The baghouse for particulate control shall be in operation and control emissions from the one (1) shotblast booth, identified as SB, at all times when the one (1) shotblast booth is in operation.

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

**MINOR SOURCE OPERATING PERMIT  
CERTIFICATION**

Source Name: Delta Tool Manufacturing, Inc.  
Source Address: 3201 Wabash Avenue, Rochester, Indiana 46975  
Mailing Address: P.O. Box 241, Rochester, Indiana 46975  
Permit No.: MSOP 049-23769-00035

**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:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE 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).

<b>Source Name:</b>	<b>Delta Tool Manufacturing, Inc.</b>
<b>Address:</b>	<b>3201 Wabash Avenue</b>
<b>City:</b>	<b>Rochester, Indiana 46975</b>
<b>Phone #:</b>	<b>574-223-2503</b>
<b>MSOP #:</b>	<b>049-23769-00035</b>

I hereby certify that Delta Tool Manufacturing, Inc. is  still in operation.  
 no longer in operation.

I hereby certify that Delta Tool Manufacturing, Inc. is  in compliance with the requirements of MSOP 049-23769-00035.  
 not in compliance with the requirements of MSOP 049-23769-00035.

<b>Authorized Individual (typed):</b>
<b>Title:</b>
<b>Signature:</b>
<b>Date:</b>

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.

<b>Noncompliance:</b>

**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 ?\_\_\_\_\_, 100TONS/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:

---

---

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

**Technical Support Document (TSD) for New Source Review and  
a Minor Source Operating Permit**

**Source Background and Description**

<b>Source Name:</b>	<b>Delta Tool Manufacturing, Inc.</b>
<b>Source Location:</b>	<b>3201 Wabash Avenue, Rochester, Indiana 46975</b>
<b>County:</b>	<b>Fulton</b>
<b>SIC Code:</b>	<b>3498</b>
<b>Operation Permit No.:</b>	<b>MSOP 049-23769-00035</b>
<b>Permit Reviewer:</b>	<b>Michael A. Morrone</b>

The Office of Air Quality (OAQ) has reviewed an application from Delta Tool Manufacturing, Inc. relating to the operation of a metal tooling components fabrication source.

**Permitted Emission Units and Pollution Control Equipment**

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

**Unpermitted Emission Units and Pollution Control Equipment**

The source also consists of the following unpermitted emission units:

- (a) One (1) surface coating booth, identified as SC, constructed prior to 1985, using HVLP spray applicators to coat metal parts, equipped with dry filters for particulate control, exhausting to Stack SC, capacity: 0.10 metal parts per hour.
- (b) One (1) shotblast booth, identified as SB, constructed prior to 1985, equipped with a dust collector, identified as DC1, constructed in 2006, exhausting to the general ventilation, capacity: 160 pounds of metal parts per hour.
- (c) Nine (9) metal inert gas (MIG) welding stations, identified as WD1 through WD9, constructed prior to 1985, exhausting to the general ventilation, capacity: 0.60 pounds of weld wire per hour, each.
- (d) One (1) spot welding station, identified as WD10, constructed in 1985, exhausting to the general ventilation, capacity: 150 pounds of metal parts per hour.
- (e) One (1) stick welding station, identified as WD11, constructed in 1985, exhausting to the general ventilation, capacity: 0.10 pounds of electrode consumed per hour.
- (f) Natural gas-fired combustion sources, consisting of the following:
  - (1) Two (2) natural gas-fired forced air space heaters, identified as H1 and H2, constructed prior to 1985, exhausting to Stacks H1 and H2, heat input capacity: 0.200 million British thermal units per hour, each.
  - (2) One (1) natural gas-fired forced air space heater, identified as H3, constructed prior to 1985, exhausting to Stack H3, heat input capacity: 0.400 million British thermal units per hour.

- (3) One (1) natural gas-fired forced air space heater, identified as H4, constructed prior to 1985, exhausting to Stack H4, heat input capacity: 0.100 million British thermal units per hour.
  - (4) One (1) natural gas-fired forced air space heater, identified as H5, constructed prior to 1985, exhausting to Stack H5, heat input capacity: 0.500 million British thermal units per hour.
  - (5) One (1) natural gas-fired forced air space heater, identified as H6, constructed prior to 1985, exhausting to Stack H6, heat input capacity: 0.100 million British thermal units per hour.
  - (6) One (1) natural gas-fired forced air space heater, identified as H7, constructed prior to 1985, exhausting to Stack H7, heat input capacity: 0.150 million British thermal units per hour.
  - (7) One (1) natural gas-fired forced air space heater, identified as H8, constructed prior to 1985, exhausting to Stack H8, heat input capacity: 0.200 million British thermal units per hour.
  - (8) One (1) natural gas-fired forced air space heater, identified as H9, constructed prior to 1985, exhausting to Stack H9, heat input capacity: 0.300 million British thermal units per hour.
  - (9) One (1) natural gas-fired water heater, identified as WH1, constructed prior to 1985, exhausting to the general ventilation, heat input capacity: 0.040 million British thermal units per hour.
- (h) Miscellaneous metal fabrication equipment, identified as MMF, constructed in 1985, consisting of the following:
- (1) Three (3) shearing tools, identified as SR1 through SR3,
  - (2) Four (4) band saws, identified as BS1 through BS4,
  - (3) One (1) plasma cutter, identified as PC1, cutting a maximum metal thickness of 0.179 inches with a maximum cutting rate of 10.0 inches per minute,
  - (4) One (1) arc carbon cutter, identified as CC1, cutting a maximum metal thickness of 0.179 inches with a maximum cutting rate of 10.0 inches per minute,
  - (5) Three (3) presses, identified as PP1 through PP3,
  - (6) Two (2) iron workers, identified as IW1 and IW2,
  - (7) One (1) radial drill, identified as DR1,
  - (8) Four (4) forming brakes, identified as BK1 through BK4,
  - (9) One (1) power roll, identified as PR1,
  - (10) One (1) hand roll, identified as HR1,
  - (11) Three (3) lathes, identified as LT1 through LT3,

- (12) Two (2) vertical mills, identified as VM1 and VM2,
  - (13) Two (2) surface grinders, identified as SFG1 and SFG2,
  - (14) Three (3) drill presses, identified as DP1 through DP3,
  - (15) One (1) tapping unit, identified as TU1, and
  - (16) Eight (8) stamping presses, identified as PP4 through PP11.
- (i) Paved and unpaved roads and parking lots with public access.

**New Emission Units and Pollution Control Equipment**

There are no proposed emission units during this review process.

**Existing Approvals**

This is the first operating permit issued to the source.

**Enforcement Issue**

- (a) IDEM is aware that the entire source has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled "Unpermitted Emission Units and Pollution Control Equipment".
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

**Stack Summary**

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
H1	Space Heating	23.0	0.67	1,250	400
H2	Space Heating	23.0	0.67	1,250	400
H3	Space Heating	23.0	1.0	1,500	450
H4	Space and Water Heating	22.0	1.0	1,250	400
H5	Space Heating	14.0	1.0	1,500	475
H6	Space Heating	14.0	0.67	1,250	400
H7	Space Heating	18.0	0.67	1,250	400
H8	Space Heating	16.0	0.67	1,250	400
H9	Space Heating	16.0	0.67	1,250	400
SC	Surface Coating Booth	3.0	2.0	10,000	Ambient

## Recommendation

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

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

An application for the purposes of this review was received on October 24, 2006, with additional information received on December 21, 2006.

## Emission Calculations

The source has stated that the following facilities that are part of the miscellaneous metal manufacturing equipment have negligible particulate matter emissions: the three (3) shears, identified as SR1 through SR3, the eleven (11) presses, identified as PP1 through PP11, the four (4) brakes, identified as BK1 through BK4, the one (1) tapping unit, identified as TU1, the two (2) iron workers, identified as IW1 and IW2, the one (1) power roll, identified as PR1, and the one (1) hand roll, identified as HR1.

The shears, brakes, presses, and tappers, use extreme blunt force to separate metal into pieces. The iron workers, power roll, and hand roll, is used to bend or change the shape of the metal pieces without separation.

See pages 1 through 10 of Appendix A of this document for detailed emissions calculations from the remaining equipment at the source.

## Potential to Emit of the Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential to Emit (tons/yr)
PM	66.3
PM <sub>10</sub>	61.8
SO <sub>2</sub>	0.006
VOC	2.74
CO	0.806
NO <sub>x</sub>	0.959

HAPs	Potential to Emit (tons/yr)
Xylene	0.620
Toluene	0.201
Manganese	0.176
MIBK	0.112
Ethyl benzene	0.110
Hexane	0.017
Lead, Benzene, Dichlorobenzene, Formaldehyde, Chromium, Cadmium, Nickel, Isocyanate Compounds	Less than or equal to 0.001
Total	1.13

- (a) The potential to emit of PM and PM<sub>10</sub> is greater than twenty-five (25.0) tons per year and less than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. An MSOP will be issued.
- (b) The potential to emit a single HAP is less than ten (10.0) tons per year and the potential to emit a combination of all HAPs is less than twenty-five (25.0) tons per year. Therefore, the source is not subject to the requirements of 326 IAC 2-7, Part 70.

**County Attainment Status**

The source is located in Fulton County.

Pollutant	Status
PM <sub>2.5</sub>	attainment
PM <sub>10</sub>	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
8-Hour Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to ozone. Fulton County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability - Entire Source section of this document.

- (b) Fulton County has been classified as unclassifiable or attainment for PM<sub>2.5</sub>. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM<sub>2.5</sub> emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM<sub>2.5</sub> emissions, it has directed states to regulate PM<sub>10</sub> emissions as a surrogate for PM<sub>2.5</sub> emissions. See the State Rule Applicability - Entire Source section of this document.
- (c) Fulton County has been classified as attainment or unclassifiable in Indiana for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability - Entire Source section of this document.
- (d) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 redesignating Delaware, Greene, Jackson, Vanderburgh, Vigo and Warrick Counties to attainment for the eight-hour ozone standard, redesignating Lake County to attainment for the sulfur dioxide standard, and revoking the one-hour ozone standard in Indiana.
- (e) Fugitive Emissions  
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

### Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	13.6
PM <sub>10</sub>	6.33
SO <sub>2</sub>	0.006
VOC	2.74
CO	0.806
NO <sub>x</sub>	0.959
Xylene	0.620
Combination HAPs	1.13

- (a) This new source is not a major stationary source because no attainment pollutant is emitted at a rate of two hundred-fifty (250) tons per year or greater and it is not in one of the twenty-eight (28) listed source categories. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.
- (b) These emissions calculations are based on pages 1 through 10 of Appendix A of this document.

## Part 70 Permit Determination

### 326 IAC 2-7 (Part 70 Permit Program)

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

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

This is the first air approval issued to this source.

## Federal Rule Applicability

- (a) The nine (9) natural gas-fired forced air space heaters, identified as H1 through H9, are not steam generating units. Therefore, the requirements of the New Source Performance Standards, 40 CFR 60, Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, and Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, are not included in the permit.
- (b) The one (1) natural gas-fired water heater, identified as WH1, has a heat input capacity of 0.040 million British thermal units per hour, which is less than 250 million British thermal units per hour. Therefore, the requirements of the New Source Performance Standard, 40 CFR 60, Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971, are not included in the permit.
- (c) The one (1) natural gas-fired water heater, identified as WH1, has a heat input capacity of 0.040 million British thermal units per hour, which is less than 250 million British thermal units per hour. Therefore, the requirements of the New Source Performance Standard, 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, are not included in the permit.
- (d) The one (1) natural gas-fired water heater, identified as WH1, has a heat input capacity of 0.040 million British thermal units per hour, which is less than 100 million British thermal units per hour. Therefore, the requirements of the New Source Performance Standard, 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, are not included in the permit.
- (e) The one (1) natural gas-fired water heater, identified as WH1, was constructed before June 9, 1989. Therefore, the requirements of the New Source Performance Standard, 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, are not included in the permit.
- (f) There are no other New Source Performance Standards included in the permit.

- (g) The source is an area source for HAPs. Therefore, the requirements of 40 CFR 63, Subpart MMMM, National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products, are not included in the permit.
- (h) The source is an area source for HAPs. Therefore, the requirements of 40 CFR 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, are not included in the permit.
- (i) There are no other National Emission Standards for Hazardous Air Pollutants included in the permit.

### **State Rule Applicability – Entire Source**

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

The unrestricted potential emissions of each attainment criteria pollutant are less than two-hundred fifty (250) tons per year. Therefore, this source, which is not one of the twenty-eight (28) listed source categories, is a minor source pursuant to 326 IAC 2-2, PSD.

#### **326 IAC 2-4.1-1 (New source toxics control)**

The operation of the source will emit less than ten (10) tons per year of a single HAP and twenty-five (25) tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

#### **326 IAC 2-6 (Emission Reporting)**

This source is not located in Lake or Porter County, does not emit five (5) tons per year or more of lead and does not require a Part 70 Operating Permit. Therefore, the requirements of 326 IAC 2-6 do not apply.

#### **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 the 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.

#### **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.

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

- (a) This source was constructed before December 13, 1985, but did not receive the necessary preconstruction approvals. Therefore, pursuant to 326 IAC 6-5-1(b), the requirements of 326 IAC 6-5 are applicable.

- (b) Pursuant to 326 IAC 6-5-3(b), a control plan or request for an exemption from the control plan shall be included in all permit applications and submitted to the commissioner by those sources specified in 326 IAC 6-5-1(b).
- (c) Pursuant to the fugitive dust control plan submitted on January 19, 2007, the source shall spray all unpaved roads and parking lots with water on an as needed basis.

### **State Rule Applicability – Individual Facilities**

#### **326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)**

The nine (9) natural gas-fired forced air space heaters and the one (1) natural gas-fired water heater, identified as WH1, are not sources of indirect heating. Therefore, the requirements of 326 IAC 6-2, Particulate Emission Limitations for Sources of Indirect Heating, are not applicable.

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

- (a) Pursuant to 326 IAC 6-3-2(d), the dry filters for particulate control shall be operation in accordance with manufacturer's specifications and control emissions from the one (1) surface coating booth, identified as SC, at all times when the one (1) surface coating booth is in operation. If overspray is visibly detected at the exhaust or accumulates on the ground, the source 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 source 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) Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from the one (1) shotblast booth, identified as SB, shall not exceed 0.750 pounds per hour when operating at a process weight rate of 160 pounds per hour (0.080 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:

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

After control by the dust collector, identified as DC1, the particulate matter emissions from the one (1) shotblast booth, identified as SB, are 0.120 pounds per hour, which is less than 0.750 pounds per hour. Therefore, the one (1) shotblast booth, identified as SB, can comply with the rule.

- (c) The nine (9) metal inert gas welding stations, identified as WD1 through WD9, consume less than 625 pounds of weld wire per day. Therefore, pursuant to 326 IAC 6-3-1(b)(9), the nine (9) metal inert gas welding stations are exempt from the requirements of 326 IAC 6-3.

- (d) The one (1) stick welding station, identified as WD11, consumes less than 625 pounds of weld rod per day. Therefore, pursuant to 326 IAC 6-3-1(b)(9), the one (1) stick welding station is exempt from the requirements of 326 IAC 6-3.
- (e) Less than 3,400 inches per hour of stock 1-inch thickness or less is cut at the one (1) plasma cutter, identified as PC, and at the one (1) arc carbon cutter, identified as CC1. Therefore, pursuant to 326 IAC 6-3-1(b)(10), the one (1) plasma cutter, identified as PC, and the one (1) arc carbon cutter, identified as CC1, are exempt from the requirements of 326 IAC 6-3-2.
- (f) The potential emissions from the one (1) spot welding station, identified as WD10, the three (3) lathes, identified as LT1 through LT3, the two (2) surface grinders, identified as SFG1 and SFG2, the four (4) bandsaws, identified as BS1 through BS4, the two (2) vertical mills, identified as VM1 and VM2, the one (1) radial drill, identified as DR1, and the three (3) drill presses, identified as DP1 through DP3, are less than 0.551 pounds per hour. Therefore, pursuant to 326 IAC 6-3-1(b)(14), the three (3) lathes, identified as LT1 through LT3, the two (2) surface grinders, identified as SFG1 and SFG2, the four (4) bandsaws, identified as BS1 through BS4, the two (2) vertical mills, identified as VM1 and VM2, the one (1) radial drill, identified as DR1, and the three (3) drill presses, identified as DP1 through DP3, are exempt from the requirements of 326 IAC 6-3.

#### 326 IAC 8-1-6 (New facilities; general reduction requirements)

The unrestricted potential to emit VOC from all facilities at the source are less than twenty-five (25.0) tons per year. Therefore, the requirements of 326 IAC 8-1-6, New facilities, general reduction requirements, are not applicable.

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

The one (1) surface coating booth, identified as SC, which was constructed after January 1, 1980 has potential VOC emissions of less than twenty-five (25.0) tons per year. Therefore, pursuant to 326 IAC 8-2-1(a)(2), the requirements of 326 IAC 8-2-9, Miscellaneous Metal Coating, are not applicable.

### **Compliance Requirements**

Permits issued under 326 IAC 2-6.1 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-6.1-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The one (1) shotblast booth, identified as SB, has the following Compliance Determination Requirements:

The baghouse for particulate control shall be in operation and control emissions from the one (1) shotblast booth, identified as SB, at all times when the one (1) shotblast booth is in operation.

There are no Compliance Monitoring Requirements applicable to the source.

### **Conclusion**

The operation of this metal tooling components fabrication source shall be subject to the conditions of the **Minor Source Operating Permit 049-23769-00035**.

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

**Company Name: Delta Tool Manufacturing, Inc.  
Address City IN Zip: 3201 Wabash Avenue, Rochester, IN 46975  
MSOP: 049-23769-00035  
Plt ID: 049-00035  
Reviewer: Michael A. Morrone  
Application Date: October 24, 2006**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
<b>One (1) surface coating booth, identified as SC</b>																
E61A280 Gray Epoxy Primer	14.1	16.8%	0.00%	16.8%	0.00%	68.0%	1.68	0.100	2.38	2.38	0.400	9.59	1.75	2.16	3.50	75%
V66V282 Epoxy Primer Catalyst	7.44	54.2%	0.00%	54.2%	0.00%	41.0%	0.420	0.100	4.03	4.03	0.169	4.06	0.741	0.157	9.83	75%
OR																
E61YC49 Epoxy Yellow Primer	14.0	18.2%	0.00%	18.2%	0.00%	70.0%	0.840	0.100	2.54	2.54	0.213	5.12	0.934	1.05	3.63	75%
V66V282 Epoxy Primer Catalyst	7.44	54.2%	0.00%	54.2%	0.00%	41.0%	0.210	0.100	4.03	4.03	0.085	2.03	0.371	0.078	9.83	75%
OR																
F63YC23 Caterpillar Yellow	9.81	27.4%	0.00%	27.4%	0.00%	61.0%	0.230	0.100	2.69	2.69	0.062	1.48	0.271	0.179	4.41	75%
V66V55 HS Plus Catalyst	9.34	9.96%	0.00%	10.0%	0.00%	88.0%	0.080	0.100	0.930	0.930	0.007	0.179	0.033	0.074	1.06	75%
OR																
G74YC165 Caterpillar Yellow	8.08	56.9%	0.00%	56.9%	0.00%	39.0%	0.230	0.100	4.60	4.60	0.106	2.54	0.463	0.088	11.8	75%
OR																
5439B30202 Caterpillar Black	11.1	50.0%	0.00%	50.0%	0.00%	25.9%	0.230	0.100	5.56	5.56	0.128	3.07	0.560	0.140	21.5	75%
OR																
E61RC21 Red Oxide	9.72	39.7%	0.00%	39.7%	0.00%	39.0%	0.230	0.100	3.86	3.86	0.089	2.13	0.389	0.148	9.90	75%
OR																
F77B2 Flat Black	8.89	59.4%	0.00%	59.4%	0.00%	27.0%	0.470	0.100	5.28	5.28	0.248	5.96	1.087	0.186	19.6	75%
AND																
Xylene solvent	7.18	100%	0.00%	100.0%	0.00%	0.00%	0.005	0.100	7.18	7.18	0.004	0.09	0.016	0.00	n/a	100%
Methyl Ethyl Ketone solvent	6.68	100%	0.00%	100.0%	0.00%	0.00%	0.040	0.100	6.68	6.68	0.027	0.64	0.117	0.00	n/a	100%
Methyl Amyl Ketone solvent	6.76	100%	0.00%	100.0%	0.00%	0.00%	0.020	0.100	6.76	6.76	0.014	0.32	0.059	0.00	n/a	100%
<b>Sub-total</b>											<b>0.044</b>	<b>1.05</b>	<b>0.192</b>	<b>0.00</b>		
<b>Add worst case coating to all solvents</b>																
<b>METHODOLOGY</b>																
<b>Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)</b>																
<b>Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)</b>																
<b>Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)</b>																
<b>Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)</b>																
<b>Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)</b>																
<b>Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)</b>																
<b>Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)</b>																
<b>Total = Worst Coating + Sum of all solvents used</b>																
<b>PM Control Efficiency:</b>											<b>79.1%</b>					
<b>Uncontrolled</b>											<b>0.613</b>	<b>14.7</b>	<b>2.68</b>	<b>2.32</b>		
<b>Controlled</b>											<b>0.613</b>	<b>14.7</b>	<b>2.68</b>	<b>0.485</b>		

**Appendix A: Emission Calculations  
HAP Emission Calculations**

**Company Name: Delta Tool Manufacturing, Inc.**  
**Address City IN Zip: 3201 Wabash Avenue, Rochester, IN 46975**  
**MSOP: 049-23769-00035**  
**Plt ID: 049-00035**  
**Permit Reviewer: Michael A. Morrone**  
**Application Date: October 24, 2006**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Ethyl Benzene	Weight % Isocyanate Compounds	Weight % MIBK	Weight % Toluene	Weight % Xylene	Ethyl Benzene Emissions (ton/yr)	Isocyanate Compounds Emissions (ton/yr)	MIBK Emissions (ton/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Total Emissions (ton/yr)
<b>One (1) surface coating booth, identified as SC</b>														
E61A280 Gray Epoxy Primer	14.1	1.68	0.100	0.400%	0.00%	0.00%	0.00%	2.00%	0.042	0.00	0.00	0.00	0.208	0.250
V66V282 Epoxy Primer Catalyst	7.44	0.420	0.100	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
								<b>Sub-total</b>	<b>0.042</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.208</b>	<b>0.250</b>
<b>OR</b>														
E61YC49 Epoxy Yellow Primer	14.0	0.840	0.100	0.400%	0.00%	0.00%	0.00%	3.00%	0.021	0.00	0.00	0.00	0.154	0.175
V66V282 Epoxy Primer Catalyst	7.44	0.210	0.100	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
								<b>Sub-total</b>	<b>0.021</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.154</b>	<b>0.175</b>
<b>OR</b>														
F63YC23 Caterpillar Yellow	9.81	0.230	0.100	0.100%	0.00%	0.00%	4.00%	0.00%	0.001	0.000	0.00	0.040	0.00	0.041
V66V55 HS Plus Catalyst	9.34	0.080	0.100	0.00%	0.20%	0.00%	0.00%	0.00%	0.000	0.001	0.00	0.00	0.00	0.00
								<b>Sub-total</b>	<b>0.001</b>	<b>0.001</b>	<b>0.00</b>	<b>0.040</b>	<b>0.00</b>	<b>0.041</b>
<b>OR</b>														
G74YC165 Caterpillar Yellow	8.08	0.230	0.100	0.200%	0.00%	0.00%	6.00%	1.00%	0.002	0.00	0.00	0.049	0.008	0.059
								<b>Sub-total</b>	<b>0.002</b>	<b>0.00</b>	<b>0.00</b>	<b>0.049</b>	<b>0.008</b>	<b>0.059</b>
<b>OR</b>														
5439B30202 Caterpillar Black	11.1	0.230	0.100	5.00%	0.00%	10.00%	0.00%	10.00%	0.056	0.000	0.112	0.00	0.112	0.280
								<b>Sub-total</b>	<b>0.056</b>	<b>0.000</b>	<b>0.112</b>	<b>0.00</b>	<b>0.112</b>	<b>0.280</b>
<b>OR</b>														
E61RC21 Red Oxide	9.72	0.230	0.100	0.30%	0.00%	0.00%	0.00%	1.00%	0.003	0.00	0.00	0.00	0.010	0.013
								<b>Sub-total</b>	<b>0.003</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.010</b>	<b>0.013</b>
<b>OR</b>														
F77B2 Flat Black	8.89	0.470	0.100	6.00%	0.00%	0.00%	11.0%	33.0%	0.110	0.00	0.00	0.201	0.604	0.915
								<b>Sub-total</b>	<b>0.110</b>	<b>0.00</b>	<b>0.00</b>	<b>0.201</b>	<b>0.604</b>	<b>0.915</b>
<b>AND</b>														
Xylene solvent	7.18	0.005	0.100	0.00%	0.00%	0.00%	0.00%	100%	0.00	0.00	0.00	0.00	0.016	0.02
Methyl Ethyl Ketone solvent	6.68	0.040	0.100	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
Methyl Amyl Ketone solvent	6.76	0.020	0.100	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
								<b>Sub-total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.016</b>	<b>0.016</b>
								<b>Worst Case</b>	<b>0.110</b>	<b>0.001</b>	<b>0.112</b>	<b>0.201</b>	<b>0.620</b>	<b>0.931</b>

**METHODOLOGY**

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

**Appendix A: Emission Calculations  
Abrasive Blasting - Confined**

**Company Name:** Delta Tool Manufacturing, Inc.  
**Address City IN Zip:** 3201 Wabash Avenue, Rochester, IN 46975  
**MSOP:** 049-23769-00035  
**Plt ID:** 049-00035  
**Reviewer:** Michael A. Morrone  
**Application Date:** October 24, 2006

**Table 1 - Emission Factors for Abrasives**

Abrasive	Emission Factor	
	lb PM / lb abrasive	lb PM10 / lb PM
Sand	0.041	0.700
Grit	0.010	0.700
Steel Shot	0.004	0.860
Other	0.010	

**Table 2 - Density of Abrasives (lb/ft3)**

Abrasive	Density (lb/ft3)
Black Beauty	169

**Table 3 - Sand Flow Rate (FR1) Through Nozzle (lb/hr)**

Flow rate of Sand Through a Blasting Nozzle as a Function of Nozzle pressure and Internal Diameter

Internal diameter, in	Nozzle Pressure (psig)							
	30	40	50	60	70	80	90	100
1/8	28	35	42	49	55	63	70	77
3/16	65	80	94	107	122	135	149	165
1/4	109	138	168	195	221	255	280	309
5/16	205	247	292	354	377	420	462	507
3/8	285	355	417	477	540	600	657	720
7/16	385	472	560	645	755	820	905	940
1/2	503	615	725	835	945	1050	1160	1265
5/8	820	990	1170	1336	1510	1680	1850	2030
3/4	1140	1420	1670	1915	2160	2400	2630	2880
1	2030	2460	2900	3340	3780	4200	4640	5060

**Calculations**

*Adjusting Flow Rates for Different Abrasives and Nozzle Diameters*

Flow Rate (FR) = Abrasive flow rate (lb/hr) with internal nozzle diameter (ID)  
 FR1 = Sand flow rate (lb/hr) with internal nozzle diameter (ID1) From Table 3 =  
 D = Density of abrasive (lb/ft3) From Table 2 =  
 D1 = Density of sand (lb/ft3) =  
 ID = Actual nozzle internal diameter (in) =  
 ID1 = Nozzle internal diameter (in) from Table 3 =

725
169
99.0
0.500
0.500

**Flow Rate (FR) (lb/hr) = 1238** per nozzle

**Uncontrolled Emissions (E, lb/hr)**

EF = emission factor (lb PM/ lb abrasive) From Table 1 =  
 FR = Flow Rate (lb/hr) =  
 w = fraction of time of wet blasting =  
 N = number of nozzles =

0.010
1238
0.00 %
1.00

<b>Uncontrolled Emissions =</b>	<b>12.4 lb/hr</b>
	<b>54.2 ton/yr</b>
<b>Controlled Emissions =</b>	<b>0.124 lb/hr</b>
	<b>0.542 ton/yr</b>

**METHODOLOGY**

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. 1, Section 3 "Abrasive Blasting" (1991 edition)

Ton/yr = lb/hr X 8760 hr/yr X ton/2000 lbs

Flow Rate (FR) (lb/hr) = FR1 x (ID/ID1)² x (D/D1)

E = EF x FR x (1-w/200) x N

w should be entered in as a whole number (if w is 50%, enter 50)

**Appendix A: Emissions Calculations  
Welding and Thermal Cutting**

**Company Name: Delta Tool Manufacturing, Inc.  
Address City IN Zip: 3201 Wabash Avenue, Rochester, IN 46975  
MSOP: 049-23769-00035  
Plt ID: 049-00035  
Reviewer: Michael A. Morrone  
Application Date: October 24, 2006**

PROCESS	Number of Stations	Max. electrode or carbon steel consumption per station (lbs/hr)		EMISSION FACTORS* (lb pollutant/lb electrode or carbon steel)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
WELDING												
Metal Inert Gas (MIG)(carbon steel)	9.00	0.600		0.0055	0.0005			0.030	0.003	0.000	0	0.003
Spot Welding	1.00	75.0		0.0055	0.0005			0.413	0.038	0.000	0	0.038
Stick (E7018 electrode)	1.00	0.100		0.0211	0.0009			0.002	0.000	0.000	0	0.0001
FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Plasma**	1.00	0.179	10.0	0.0039				0.002	0.000	0.000	0.000	0.00
Arc Carbon Cutter	1.00	0.179	10.0	0.0039				0.002	0.000	0.000	0.000	0.00
<b>EMISSION TOTALS</b>												
Potential Emissions lbs/hr								0.447	0.04	0.00	0.00	0.04
Potential Emissions lbs/day								10.7	0.967	0.00	0.00	0.967
Potential Emissions tons/year								1.96	0.176	0.00	0.00	0.176

**METHODOLOGY**

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

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

An equivalence of carbon steel to pounds of weld wire consumed was assumed for spot welding. Also, a conservative assumption was made that half of the process weight rate of the welding activities (75 lbs carbon steel) is the worst case going through the spot welder.

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

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

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

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

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

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

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

**Company Name: Delta Tool Manufacturing, Inc.  
Address City IN Zip: 3201 Wabash Avenue, Rochester, IN 46975  
MSOP: 049-23769-00035  
Plt ID: 049-00035  
Reviewer: Michael A. Morrone  
Application Date: October 24, 2006**

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.90	7.60	0.600	100 **see below	5.50	84.0

\*PM emission factor is filterable PM only. PM-10 emission factor is filterable and condensable PM-10 combined.

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

Equipment	Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Potential Emission in tons/yr					
			PM*	PM10*	SO2	NOx	VOC	CO
Two (2) natural gas-fired forced air space heaters, identified as H1 and H2	0.400	3.50	0.003	0.013	0.001	0.175	0.010	0.147
One (1) natural gas-fired forced air space heater, identified as H3	0.400	3.50	0.003	0.013	0.001	0.175	0.010	0.147
One (1) natural gas-fired forced air space heater, identified as H4	0.100	0.876	0.001	0.003	0.0003	0.044	0.002	0.037
One (1) natural gas-fired forced air space heater, identified as H5	0.500	4.38	0.004	0.017	0.001	0.219	0.012	0.184
One (1) natural gas-fired forced air space heater, identified as H6	0.100	0.876	0.001	0.003	0.0003	0.044	0.002	0.037
One (1) natural gas-fired forced air space heater, identified as H7	0.150	1.31	0.001	0.005	0.0004	0.066	0.004	0.055
One (1) natural gas-fired forced air space heater, identified as H8	0.200	1.75	0.002	0.007	0.001	0.088	0.005	0.074
One (1) natural gas-fired forced air space heater, identified as H9	0.300	2.63	0.002	0.010	0.001	0.131	0.007	0.110
One (1) natural gas-fired water heater, identified as WH1	0.040	0.350	0.0003	0.001	0.0001	0.018	0.001	0.015
<b>Total</b>	<b>2.19</b>	<b>19.2</b>	<b>0.018</b>	<b>0.073</b>	<b>0.006</b>	<b>0.959</b>	<b>0.053</b>	<b>0.806</b>

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

(SUPPLEMENT D 3/98)

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

See page 6 for HAPs emissions calculations.

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

**Company Name: Delta Tool Manufacturing, Inc.  
 Address City IN Zip: 3201 Wabash Avenue, Rochester, IN 46975  
 MSOP: 049-23769-00035  
 Plt ID: 049-00035  
 Reviewer: Michael A. Morrone  
 Application Date: October 24, 2006**

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 0.0021	Dichlorobenzene 0.0012	Formaldehyde 0.0750	Hexane 1.8000	Toluene 0.0034
Potential Emission in tons/yr	0.00002	0.00001	0.001	0.017	0.00003

HAPs - Metals

Emission Factor in lb/MMcf	Lead 0.0005	Cadmium 0.0011	Chromium 0.0014	Manganese 0.0004	Nickel 0.0021	Total HAPs
Potential Emission in tons/yr	0.000005	0.00001	0.00001	0.000004	0.00002	<b>0.018</b>

Methodology is the same as page 5.

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

**Appendix A: Emissions Calculations  
Miscellaneous Metal Fabrication**

**Company Name: Delta Tool Manufacturing, Inc.  
Address City IN Zip: 3201 Wabash Avenue, Rochester, IN 46975  
MSOP: 049-23769-00035  
Plt ID: 049-00035  
Reviewer: Michael A. Morrone  
Application Date: October 24, 2006**

**Shaping/Grinding**

Process/Operation	Description	ID	Surface Thickness Removed (in)	Surface Width Removed (in)	Surface Distance (in/hr)	Material Loss (in <sup>3</sup> /hr)	Material Density (lb/in <sup>3</sup> )	Material Loss (lb/hr)
Machining/Tool/Die	Lathe	LT1	0.125	0.031	20.0	0.078	0.290	0.023
Machining/Tool/Die	Lathe	LT2	0.125	0.031	20.0	0.078	0.290	0.023
Machining/Tool/Die	Lathe	LT3	0.125	0.031	20.0	0.078	0.290	0.023
Machining/Tool/Die	Surface Grinder	SFG1	0.031	2.00	5.00	0.310	0.290	0.090
Machining/Tool/Die	Surface Grinder	SFG2	0.031	2.00	5.00	0.310	0.290	0.090
<b>Estimated Emissions (lb/hr)</b>								<b>0.248</b>
<b>Estimated Emissions (tons/yr)</b>								<b>1.09</b>

**METHODOLOGY**

Material Loss (in<sup>3</sup>/hr) = Surface Thickness (in) X Surface Width (in) X Surface Distance (in/hr)  
 Material Density (lbs/in<sup>3</sup>) = Data from O'Neal Steel, Inc. Stock List and Reference Book, 1999  
 Estimated Emissions (lb/hr) = Material Loss (in<sup>3</sup>/hr) X Material Density (lb/in<sup>3</sup>)  
 Estimated Emissions (tons/yr) = Material Loss (in<sup>3</sup>/hr) X 8,760 (hrs/yr) X 1/2,000 (lbs/ton)

**Cutting**

Process/Operation	Description	ID	Material Thickness (in)	Cutting Surface Thickness (in)	Process rate (in/hr)	Material Loss (in <sup>3</sup> /hr)	Material Density (lb/in <sup>3</sup> )	Material Loss (lb/hr)
Shearing/Cutting	Vertical Bandsaw	BS1	0.179	0.031	10.0	0.055	0.290	0.016
Shearing/Cutting	Vertical Bandsaw	BS2	0.179	0.031	10.0	0.055	0.290	0.016
Shearing/Cutting	Horizontal Bandsaw	BS3	0.179	0.031	5.00	0.028	0.290	0.008
Shearing/Cutting	Horizontal Bandsaw	BS4	0.179	0.031	5.00	0.028	0.290	0.008
Machining/Tool/Die	Vertical Mill	VM1	0.179	0.031	20.0	0.111	0.290	0.032
Machining/Tool/Die	Vertical Mill	VM2	0.179	0.031	20.0	0.111	0.290	0.032
<b>Estimated Emissions (lb/hr)</b>								<b>0.113</b>
<b>Estimated Emissions (tons/yr)</b>								<b>0.493</b>

**METHODOLOGY**

Same as Shaping/Grinding Table

**Drilling**

Process/Operation	Description	ID	Material Thickness (in)	Drilling Area (in <sup>2</sup> )	Drill rate (holes/hr)	Material Loss (in <sup>3</sup> /hr)	Material Density (lb/in <sup>3</sup> )	Material Loss (lb/hr)
Punching/Notching/Drilling	Radial Drill	DR1	0.179	0.200	5.00	0.179	0.290	0.052
Machining/Tool/Die	Drill Press	DP1	0.179	0.050	5.00	0.045	0.290	0.013
Machining/Tool/Die	Drill Press	DP2	0.179	0.050	5.00	0.045	0.290	0.013
Machining/Tool/Die	Drill Press	DP3	0.179	0.050	5.00	0.045	0.290	0.013
<b>Estimated Emissions (lb/hr)</b>								<b>0.091</b>
<b>Estimated Emissions (tons/yr)</b>								<b>0.398</b>

**METHODOLOGY**

Material Loss (in<sup>3</sup>/hr) = Material Thickness (in) X Drilling Area (in<sup>2</sup>) X Process rate (holes/hr)  
 Other equations the same as above.

**Appendix A: Emissions Calculations  
Unpaved Roads**

**Company Name: Delta Tool Manufacturing, Inc.  
Address City IN Zip: 3201 Wabash Avenue, Rochester, IN  
MSOP: 049-23769-00035  
Plt ID: 049-00035  
Reviewer: Michael A. Morrone  
Application Date: October 24, 2006**

<b>1.00</b>	trips/hr x
<b>0.189</b>	miles/roundtrip x

**1656** miles per year

<b>Constants</b>			
where:	For PM	For PM-10	
k =	10	2.6	(particle size multiplier for PM-10) (k=10 for PM-30 or TSP)
s =	4.8	4.8	mean % silt content of unpaved roads
b =	0.5	0.4	Constant for PM-10 (b = 0.5 for PM-30 or TSP)
c =	0.4	0.3	Constant for PM-10 (c = 0.4 for PM-30 or TSP)
W =	15	15	tons average vehicle weight
Mdry =	0.2	0.2	surface material moisture content, % (default is 0.2 for dry conditions)
p =	125	125	number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)
<b>Particulate Emission Factor</b>			
Ef =	7.06	1.56	$Ef = \{k * [(s/12)^{0.8}] * [(W/3)^b] / [(Mdry/0.2)^c] * [(365-p)/365]\}$ (lb/mile)

**PM Emissions =**  $\frac{7.06 \text{ lb/mi} \times 1655.64 \text{ mi/yr}}{2000 \text{ lb/ton}}$

<b>5.85 tons/yr</b>
---------------------

**PM-10 Emissions =**  $\frac{1.56 \text{ lb/mi} \times 1655.64 \text{ mi/yr}}{2000 \text{ lb/ton}}$

<b>1.29 tons/yr</b>
---------------------

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

Company Name: Delta Tool Manufacturing, Inc.  
 Address City IN Zip: 3201 Wabash Avenue, Rochester, IN 46975  
 MSOP: 049-23769-00035  
 Plt ID: 049-00035  
 Reviewer: Michael A. Morrone  
 Application Date: October 24, 2006

Uncontrolled Potential Emissions

Significant Emissions Units	PM	PM-10	SO2	NOx	VOC	CO	Lead	Ethyl Benzene	Toluene	Xylene	Benzene	Dichloro-benzene	Formal-dehyde	Hexane	Chromium	Cadmium	Manganese	Nickel	Total HAPs	
	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	
One (1) surface coating booth, identified as SC	2.32	2.32	0.00	0.00	2.68	0.00	0.00	0.110	0.201	0.620	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.931
One (1) shot blast booth, identified as SB	54.2	54.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000
Nine (9) MIG welding stations, identified as WD1 through WD 9	0.130	0.130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.012	0.00	0.00	0.012
One (1) spot welder, identified as WD10	1.81	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.164	0.00	0.00	0.164
One (1) stick welding station, identified as WD11	0.009	0.009	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0004	0.00	0.00	0.0004
Natural gas-fired combustion	0.018	0.073	0.006	0.959	0.053	0.806	0.000005	0.00	0.00003	0.00	0.00002	0.00001	0.001	0.017	0.00001	0.00001	0.000004	0.00002	0.00	0.018
<b>Miscellaneous Metal Manufacturing, including:</b>																				
Flame Cutting	0.018	0.018	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Shaping/Grinding	1.09	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cutting	0.493	0.493	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling	0.398	0.398	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unpaved Roads	5.85	1.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>66.3</b>	<b>61.8</b>	<b>0.006</b>	<b>0.959</b>	<b>2.74</b>	<b>0.806</b>	<b>0.000005</b>	<b>0.110</b>	<b>0.201</b>	<b>0.620</b>	<b>0.00002</b>	<b>0.00001</b>	<b>0.001</b>	<b>0.017</b>	<b>0.00001</b>	<b>0.00001</b>	<b>0.176</b>	<b>0.00002</b>		<b>1.13</b>

Controlled Potential Emissions

Significant Emissions Units	PM	PM-10	SO2	NOx	VOC	CO	Lead	Ethyl Benzene	Toluene	Xylene	Benzene	Dichloro-benzene	Formal-dehyde	Hexane	Chromium	Cadmium	Manganese	Nickel	Total HAPs	
	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
One (1) surface coating booth, identified as SC	0.485	0.485	0.00	0.00	2.68	0.00	0.00	0.110	0.201	0.620	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.931
One (1) shot blast booth, identified as SB	0.542	0.542	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nine (9) MIG welding stations, identified as WD1 through WD 9	0.130	0.130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.012	0.00	0.00	0.012
One (1) spot welder, identified as WD10	1.81	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.164	0.00	0.00	0.164
One (1) stick welding station, identified as WD11	0.009	0.009	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0004	0.00	0.00	0.0004
Natural gas-fired combustion	0.018	0.073	0.006	0.959	0.053	0.806	0.000005	0.00	0.00003	0.00	0.00002	0.00001	0.001	0.017	0.00001	0.00001	0.00	0.00002	0.00	0.018
<b>Miscellaneous Metal Manufacturing, including:</b>																				
Flame Cutting	0.018	0.018	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Shaping/Grinding	1.086	1.090	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cutting	0.493	0.493	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling	0.398	0.398	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unpaved Roads	5.85	1.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>10.8</b>	<b>6.33</b>	<b>0.006</b>	<b>0.959</b>	<b>2.74</b>	<b>0.806</b>	<b>0.000005</b>	<b>0.110</b>	<b>0.201</b>	<b>0.620</b>	<b>0.00002</b>	<b>0.00001</b>	<b>0.001</b>	<b>0.017</b>	<b>0.00001</b>	<b>0.00001</b>	<b>0.176</b>	<b>0.00002</b>		<b>1.13</b>

Company Name: Delta Tool Manufacturing, Inc.  
 Address City IN Zip: 3201 Wabash Avenue, Rochester, IN 46975  
 MSOP: 049-23769-00035  
 Plt ID: 049-00035  
 Reviewer: Michael A. Morrone  
 Application Date: October 24, 2006

Limited Potential to Emit

Significant Emissions Units	PM (tons/yr)	PM-10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Lead (tons/yr)	Ethyl Benzene (tons/yr)	Toluene (tons/yr)	Xylene (tons/yr)	Benzene (tons/yr)	Dichloro-benzene (tons/yr)	Formal-dehyde (tons/yr)	Hexane (tons/yr)	Chromium (tons/yr)	Cadmium (tons/yr)	Manganese (tons/yr)	Nickel (tons/yr)	Total HAPs (tons/yr)	
One (1) surface coating booth, identified as SC	0.485	0.485	0.000	0.000	2.68	0.000	0.000	0.110	0.201	0.620	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.931
One (1) shot blast booth, identified as SB	3.29	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nine (9) MIG welding stations, identified as WD1 through WD 9	0.130	0.130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.012	0.00	0.012
One (1) spot welder, identified as WD10	1.81	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.164	0.00	0.164
One (1) stick welding station, identified as WD11	0.009	0.009	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0004	0.000	0.0004	
Natural gas-fired combustion	0.018	0.073	0.006	0.959	0.053	0.806	0.000005	0.00	0.00003	0.00	0.00002	0.00001	0.001	0.017	0.00001	0.00001	0.000004	0.00002	0.0018	
<b>Miscellaneous Metal Manufacturing, including:</b>																				
Flame Cutting	0.018	0.018	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Shaping/Grinding	1.09	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cutting	0.493	0.493	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling	0.398	0.398	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unpaved Roads	5.85	1.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>13.6</b>	<b>6.33</b>	<b>0.006</b>	<b>0.959</b>	<b>2.74</b>	<b>0.806</b>	<b>0.000005</b>	<b>0.110</b>	<b>0.201</b>	<b>0.620</b>	<b>0.00002</b>	<b>0.00001</b>	<b>0.001</b>	<b>0.017</b>	<b>0.00001</b>	<b>0.00001</b>	<b>0.176</b>	<b>0.00002</b>	<b>1.13</b>	