



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

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

**Michael R. Pence**  
Governor

**Thomas W. Easterly**  
Commissioner

TO: Interested Parties / Applicant

DATE: November 12, 2013

RE: Monticello Spring Corporation / 181-32942-00045

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

## Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures  
FNPER.dot 6/13/13



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## Minor Source Operating Permit Renewal OFFICE OF AIR QUALITY

**Monticello Spring Corporation  
3137 South Freeman Road  
Monticello, Indiana 47960**

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

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

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

Operation Permit No.: M181-32942-00045	
Issued by:  Jason R. Krawczyk, Section Chief Permits Branch Office of Air Quality	Issuance Date: November 12, 2013  Expiration Date: November 12, 2023



## TABLE OF CONTENTS

<b>A. SOURCE SUMMARY.....</b>	<b>4</b>
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>B. GENERAL CONDITIONS .....</b>	<b>7</b>
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 Annual Notification [326 IAC 2-6.1-5(a)(5)]	
B.9 Preventive Maintenance Plan [326 IAC 1-6-3]	
B.10 Prior Permits Superseded [326 IAC 2-1.1-9.5]	
B.11 Termination of Right to Operate [326 IAC 2-6.1-7(a)]	
B.12 Permit Renewal [326 IAC 2-6.1-7]	
B.13 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]	
B.14 Source Modification Requirement	
B.15 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] [IC 13-17-3-2][IC 13-30-3-1]	
B.16 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]	
B.17 Annual Fee Payment [326 IAC 2-1.1-7]	
B.18 Credible Evidence [326 IAC 1-1-6]	
<b>C. SOURCE OPERATION CONDITIONS .....</b>	<b>12</b>
<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 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]	
<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 Instrument Specifications [326 IAC 2-1.1-11]	
<b>Corrective Actions and Response Steps</b>	
C.12 Response to Excursions or Exceedances	
C.13 Actions Related to Noncompliance Demonstrated by a Stack Test	
<b>Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]</b>	
C.14 Malfunctions Report [326 IAC 1-6-2]	
C.15 General Record Keeping Requirements [326 IAC 2-6.1-5]	

C.16 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..... 18**

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

- D.1.1 Particulate [326 IAC 6-3-2(d)]
- D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

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

- D.1.3 Record Keeping Requirements

**D.2. EMISSIONS UNIT OPERATION CONDITIONS..... 18**

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

- D.2.1 Particulate [326 IAC 6-3-2]
- D.2.2 Preventive Maintenance Plan [326 IAC 1-6-3]

**Compliance Determination Requirements**

- D.2.3 Particulate Control

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

- D.2.4 Baghouse Inspections

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

- D.2.5 Record Keeping Requirements

**D.3. EMISSIONS UNIT OPERATION CONDITIONS..... 20**

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

- D.3.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-4]
- D.3.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]
- D.3.3 Material Requirements for Cold Cleaner Degreasers [326 IAC 8-3-8]
- D.3.4 Preventive Maintenance Plan [326 IAC 1-6-3]

**Compliance Determination Requirements**

- D.3.5 VOC Emissions

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

- D.3.6 Record Keeping Requirements
- D.3.7 Reporting Requirements

Annual Notification ..... 23  
Quarterly Report..... 25  
Malfunction Report ..... 23

## 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)]

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The Permittee owns and operates a stationary industrial spring manufacturing.

Source Address:	3137 South Freeman Road, Monticello, Indiana 47960
General Source Phone Number:	(574) 583-8090
SIC Code:	3495 (Wire Springs)
County Location:	White
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

### A.2 Emission Units and Pollution Control Equipment Summary

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

- (a) One (1) tumble painter, identified as ID # 9130, constructed in 1982, used to paint metal parts with an air atomization application method, with a maximum capacity of 0.30 gallons of paint per hour, with emissions controlled by a separation unit, which exhausts to stack 9A-PV002.
- (b) One (1) paint booth, identified as PB-1, constructed in 1972, with a maximum spray rate of 2 gallons per hour, using dry filters for particulate control and exhausting to vent PB-1.
- (c) One (1) grinding operation, consisting of multiple grinding stations that are part of the spring manufacturing lines on the compression side of the building, identified as ID # GR, constructed in 1975, with a maximum capacity of 104 pounds of metal springs per hour, with emissions controlled by a large baghouse, which exhausts inside the building.
- (d) Ultrasonic radial head spring cleaning/degreasing operations using Blue Gold cleaner in a conveyORIZED degreaser, constructed after July 1, 1990, with a maximum usage rate of 0.02 gallons of cleaner per hour.
- (e) Two (2) small parts washers for maintenance degreasing using organic solvent with a maximum combined solvent usage rate of 0.01 gallons per hour.
- (f) One (1) shot blasting operation consisting of the following individual shot blasting units:
  - (1) one (1) shot blaster, identified as 9128, constructed in 1990, blasting steel shot with a maximum abrasive input rate of 2,951 pounds of blasting media per hour, controlled with a baghouse which exhausts inside the building,
  - (2) one (1) shot blaster, identified as 9133, constructed in 1990, blasting steel shot with a maximum abrasive input rate of 18,000 pounds of blasting media per hour, controlled with a baghouse which exhausts inside the building,

- (3) one (1) shot blaster, identified as 9191, constructed in 1990, blasting steel shot with a maximum abrasive input rate of 18,000 pounds of blasting media per hour, controlled with a baghouse which exhausts inside the building,
  - (4) one (1) shot blaster, identified as 9240, constructed in 1990, blasting steel shot with a maximum abrasive input rate of 18,000 pounds of blasting media per hour, controlled with a baghouse which exhausts inside the building,
  - (5) one (1) shot blaster, identified as 9832, constructed in 1990, blasting steel shot with a maximum abrasive input rate of 48,000 pounds of blasting media per hour, which vents to the large baghouse controlling grinding operations, which exhausts inside the building,
  - (6) two (2) shot blasters, identified as 9210a and 9210b, both constructed in 1990, each blasting glass bead with a maximum abrasive input rate of 258 pounds of blasting media per hour, controlled with a baghouse which exhausts inside the building.
- (g) One (1) degreasing operation, identified as ID # 9075, constructed in 1975, with a maximum usage rate of 0.10 gallons of NPB solvent per hour, with emissions exhausted to stack 8-DV001.
- (h) Two (2) spring finishing machines, identified as ID # 7210, constructed in 1990, and # 7211, constructed in 1994, with a maximum throughput rate of 0.0013 gallons per hour for each unit and emissions exhausted inside the building.
- (i) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour. There are currently no boilers. These natural gas-fired combustion sources consist of:
- (1) One (1) rapid air make-up unit, located in the shipping department, constructed in 1990, rated at 3.3 MMBtu per hour.
  - (2) One (1) rapid air make-up unit, located in the compression building, constructed in 1990, rated at 3.3 MMBtu per hour.
  - (3) One (1) rapid air make-up unit, located in the tension building, constructed in 2007, rated at 3.3 MMBtu per hour.
  - (4) Two (2) space heaters, identified as heater #1 and heater #2, located in the front office, constructed in 1990, rated at 0.120 MMBtu per hour for each unit.
  - (5) One (1) space heater, identified as heater #3, located in the front office, constructed in 1990, rated at 0.060 MMBtu per hour.
  - (6) Three (3) space heaters, identified as heaters #1, #2, and #3, located in maintenance, constructed in 1990, rated at 0.125 MMBtu per hour for each unit.
  - (7) One (1) space heater, located in the training room, constructed in 1990, rated at 0.120 MMBtu per hour.
  - (8) One (1) space heater, located in the break room, constructed in 1990, rated at 0.120 MMBtu per hour.

- (j) Three (3) MIG welders with a maximum consumption of 0.04 pounds per hour of electrode, per station.
- (k) Two (2) oxyacetylene torches with a maximum metal cutting rate of 5 inches per minute each.
- (l) One (1) oiling/dipping operation, constructed in 1990, with a maximum combined oil and rust preventative usage rate of 0.054 gallons per hour, exhausting inside the building and using no emission control.
- (m) One (1) roper rust preventative dipping operation, constructed in 1994, with a maximum rust preventative usage rate of 0.005 gallons per hour, exhausting outside the building via a wall exhaust fan.
- (n) One (1) VCI drum spraying operation, constructed in 2007, with a maximum rust inhibitor usage rate of 0.0017 gallons per hour, exhausting inside the building and using no emission control.
- (o) One (1) manual striping process, constructed in 2011, with a maximum paint and solvent usage rate of 0.0168 gallons per hour each, with emissions from the wooden wheel, used to spin dry the coatings, exhausted outside the building through an exhaust stack.
- (p) One (1) Sweco vibrating finisher, constructed in 2011, exhausting indoors with no control.

## SECTION B GENERAL CONDITIONS

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

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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)]

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- (a) This permit, M181-32942-00045, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

### B.3 Term of Conditions [326 IAC 2-1.1-9.5]

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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

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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

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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

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

### B.7 Duty to Provide Information

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

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- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:  
  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, 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.9 Preventive Maintenance Plan [326 IAC 1-6-3]**

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- (a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:
  - (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.

The Permittee shall implement the PMPs.
- (b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality

100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

The Permittee shall implement the PMPs.

- (c) 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.
- (d) 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.10 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

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- (a) All terms and conditions of permits established prior to M181-32942-00045 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.11 Termination of Right to Operate [326 IAC 2-6.1-7(a)]**

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

**B.12 Permit Renewal [326 IAC 2-6.1-7]**

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- (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 an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
  - (1) Submitted at least one hundred twenty (120) days prior to the date of the expiration of this permit; and
  - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the

document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-6.1-4(b), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

**B.13 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]**

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- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- (c) The Permittee shall notify the OAQ no later than thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

**B.14 Source Modification Requirement**

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

**B.15 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][IC 13-17-3-2][IC 13-30-3-1]**

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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.16 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]**

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

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

The application which shall be submitted by the Permittee does require an affirmation that the statements in the application are true and complete 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.17 Annual Fee Payment [326 IAC 2-1.1-7]**

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- (a) The Permittee shall pay annual fees due no later than thirty (30) calendar days of receipt of a bill from IDEM, OAQ,.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

**B.18 Credible Evidence [326 IAC 1-1-6]**

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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 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 5-1-1 (Applicability) and 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 except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

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

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The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

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

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project.

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

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

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

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

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- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
  
no later than thirty-five (35) days prior to the intended test date.
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

### **Compliance Requirements [326 IAC 2-1.1-11]**

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

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

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

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

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Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

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

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- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. The analog instrument shall be capable of measuring values outside of the normal range.

- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

### **Corrective Actions and Response Steps**

#### **C.12 Response to Excursions or Exceedances**

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Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

- (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
  - (1) initial inspection and evaluation;
  - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
  - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
  - (1) monitoring results;
  - (2) review of operation and maintenance procedures and records; and/or
  - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall record the reasonable response steps taken.

#### **C.13 Actions Related to Noncompliance Demonstrated by a Stack Test**

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- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline

- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

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

#### **C.14 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.15 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, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

#### **C.16 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]**

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

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

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or

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

- (c) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

## SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (a) One (1) tumble painter, identified as ID # 9130, constructed in 1982, used to paint metal parts with an air atomization application method, with a maximum capacity of 0.30 gallons of paint per hour, with emissions controlled by a separation unit, which exhausts to stack 9A-PV002.
- (b) One (1) paint booth, identified as PB-1, with a maximum spray rate of 2 gallons per hour, using dry filters for particulate control and exhausting to vent PB-1.

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

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

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

- (a) Particulate emissions from the tumble painter (ID # 9130) and paint booth (PB-1) shall be controlled by a dry particulate filter, waterwash, or an equivalent control device and the Permittee shall operate the control device in accordance with manufacturer's specifications.
- (b) If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:
  - (1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
  - (2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
- (c) If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

#### D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for this facility and any control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

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

#### D.1.3 Record Keeping Requirements

- (a) To document the compliance status with Condition D.1.1 the Permittee shall maintain a record of any actions taken if overspray is visibly detected.
- (b) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

## SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (c) One (1) grinding operation, consisting of multiple grinding stations that are part of the spring manufacturing lines on the compression side of the building, identified as ID # GR, constructed in 1975, with a maximum capacity of 104 pounds of metal springs per hour, with emissions controlled by a large baghouse, which exhausts inside the building.

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

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

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

Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from the grinding operation shall not exceed 0.57 pounds per hour when operating at a process weight rate of 104 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 sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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

#### D.2.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for the grinding operation and any control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

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

#### D.2.3 Particulate Control [326 IAC 2-1.1-11]

In order to comply with Condition D.2.1, the baghouse for particulate control shall be in operation and control emissions from the grinding operation at all times that the grinding operation is in operation.

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

#### D.2.4 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the grinding operations. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

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

#### D.2.5 Record Keeping Requirements

- (a) To document the compliance status with Condition 2.4, the Permittee shall maintain records of the baghouse inspections.
- (b) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the recordkeeping requirements of this requirement.

## SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (d) Ultrasonic radial head spring cleaning/degreasing operations using Blue Gold cleaner in a conveyORIZED degreaser, constructed after July 1, 1990, with a maximum usage rate of 0.02 gallons of cleaner per hour.
- (e) Two (2) small parts washers for maintenance degreasing using organic solvent with a maximum solvent usage rate of 0.01 gallons per hour.

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

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

#### D.3.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-4]

The input of VOC to the ultrasonic radial head spring cleaning conveyORIZED degreaser shall be less than fifteen (15) pounds per day, with compliance determined at the end of each day.

Compliance with this limit shall render the requirements of 326 IAC 8-3-4 (ConveyORIZED Degreaser Control Equipment and Operating Requirements) not applicable.

#### D.3.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements), for the two (2) small parts washers, the Permittee shall:

- (a) Ensure the following control equipment and operating requirements are met:
  - (1) Equip the degreaser with a cover.
  - (2) Equip the degreaser with a device for draining cleaned parts.
  - (3) Close the degreaser cover whenever parts are not being handled in the degreaser.
  - (4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
  - (5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).
  - (6) Store waste solvent only in closed containers.
  - (7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.
- (b) Ensure the following additional control equipment and operating requirements are met:
  - (1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):

- (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
  - (B) A water cover when solvent used is insoluble in, and heavier than, water.
  - (C) A refrigerated chiller.
  - (D) Carbon adsorption.
  - (E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.
- (2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.
- (3) If used, solvent spray:
- (A) must be a solid, fluid stream; and
  - (B) shall be applied at a pressure that does not cause excessive splashing.

#### D.3.3 Material Requirements for Cold Cleaner Degreasers [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers), on and after January 1, 2015, the Permittee shall not operate the two (2) small parts washer cold cleaning degreasers with a solvent that has a VOC composite partial vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

#### D.3.4 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for these facilities and any associated control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

### **Compliance Determination Requirements**

#### D.3.5 VOC Emissions

Compliance with the VOC input limitation contained in Condition D.3.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

#### D.3.6 Record Keeping Requirements

- (a) To document compliance with Condition D.3.1, the Permittee shall maintain daily records in accordance with (1) through (3) below for the ultrasonic radial head spring cleaning conveyORIZED degreaser. Records maintained for (1) through (3) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limit established in Condition D.3.1.
- (1) The VOC content of each degreasing solvent used less water.
  - (2) The amount of degreasing solvent used on a daily basis.
  - (3) The total VOC input to the ultrasonic radial head spring cleaning conveyORIZED degreaser each day.

Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

- (b) To document the compliance status with Condition D.3.3, on and after January 1, 2015, the Permittee shall maintain the following records for each purchase of solvent used in the cold cleaner degreasing operations. These records shall be retained on-site or accessible electronically for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.
- (1) The name and address of the solvent supplier.
  - (2) The date of purchase.
  - (3) The type of solvent purchased.
  - (4) The total volume of the solvent purchased.
  - (5) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.3.7 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.3.1 shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting Requirements contains the Permittee's obligation with regard to the reporting required by this condition.

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

**MINOR SOURCE OPERATING PERMIT  
ANNUAL NOTIFICATION**

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

<b>Company Name:</b>	Monticello Spring Corporation
<b>Address:</b>	3137 South Freeman Road
<b>City:</b>	Monticello, Indiana 47960
<b>Phone #:</b>	(574) 583-8090
<b>MSOP #:</b>	M181-32942-00045

I hereby certify that Monticello Spring Corporation is :

still in operation.

no longer in operation.

I hereby certify that Monticello Spring Corporation is :

in compliance with the requirements of  
MSOP M181-32942-00045.

not in compliance with the requirements of MSOP  
M181-32942-00045.

<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>

## Indiana Department of Environmental Management Office of Air Quality Compliance and Enforcement Branch

Source Name: Monticello Spring Corporation  
Source Address: 3137 South Freeman Road, Monticello, IN 47960  
MSOP Permit No.: M181-32942-00045  
Source/Facility: Ultrasonic radial head spring cleaning conveyorized degreaser  
Pollutant: VOC Input  
Limit: Less than 15 pounds per day

**Month:** \_\_\_\_\_ **Year:** \_\_\_\_\_

Day	VOC Input (lb/day)	Day	VOC Input (lb/day)
1		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
8		24	
9		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16		<b>TOTAL</b>	

No deviation occurred in this month.

Deviation/s occurred in this month.

Deviation has been reported on \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title/Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

**MALFUNCTION REPORT**  
**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
**OFFICE OF AIR QUALITY**  
**COMPLIANCE AND ENFORCEMENT BRANCH**  
**FAX NUMBER: (317) 233-6865**

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

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

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

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

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

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

DATE/TIME MALFUNCTION STARTED: \_\_\_\_/\_\_\_\_/20\_\_\_\_    \_\_\_\_\_ AM / PM  
ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: \_\_\_\_\_

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE \_\_\_\_/\_\_\_\_/20\_\_\_\_    \_\_\_\_\_ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: \_\_\_\_\_  
ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: \_\_\_\_\_

MEASURES TAKEN TO MINIMIZE EMISSIONS: \_\_\_\_\_

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:  
CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL\* SERVICES: \_\_\_\_\_  
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: \_\_\_\_\_  
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: \_\_\_\_\_  
INTERIM CONTROL MEASURES: (IF APPLICABLE) \_\_\_\_\_

MALFUNCTION REPORTED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_  
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

\*SEE PAGE 2

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

**326 IAC 1-6-1 Applicability of rule**

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

**326 IAC 1-2-39 "Malfunction" definition**

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

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

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

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

**Addendum to the Technical Support Document (ATSD) for a  
Minor Source Operating Permit (MSOP) Renewal with  
New Source Review (NSR)**

**Source Background and Description**

<b>Source Name:</b>	<b>Monticello Spring Corporation</b>
<b>Source Location:</b>	<b>3137 South Freeman Road, Monticello, IN 47960</b>
<b>County:</b>	<b>White</b>
<b>SIC Code:</b>	<b>3495 (Wire Springs)</b>
<b>Operation Permit No.:</b>	<b>M181-32942-00045</b>
<b>Permit Reviewer:</b>	<b>Tamera Wessel</b>

On September 27, 2013, the Office of Air Quality (OAQ) had a notice published in the Herald Journal, Monticello, Indiana, stating that Monticello Spring Corporation had applied for a MSOP Renewal with NSR to continue operating a stationary metal spring manufacturing facility and to include numerous unpermitted emission units. The notice also stated that the OAQ proposed to issue a MSOP Renewal with NSR for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

**Comments and Responses**

On October 25, 2013, Joe VanCamp of Cornerstone Environmental, Health and Safety, Inc., on behalf of Monticello Spring Corporation, submitted comments to IDEM, OAQ on the draft MSOP with NSR.

The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD, but the Permit will have the updated changes. The comments and revised permit language are provided below with deleted language as ~~strikeouts~~ and new language **bolded**.

**Comment 1:**

The source requests that a statement be added to the description of the Sweco vibrating finisher to indicate this unit is not a source of any emissions in order to avoid any potential future confusion.

**Response to Comment 1:**

A statement has been added to the Facility-Wide Emissions Summary sheet of Appendix A to the Addendum to the Technical Support Document (ATSD) stating that emissions from the Sweco vibrating finisher are expected to be negligible because an aqueous solution continuously floods the interface. Due to its negligible emissions, the Sweco vibrating finisher is not subject to any rules or requirements. Claims of the unit not being a source of emissions will not be added to the permit as this has not been verified.

**Comment 2:**

The source requests that the baghouse inspection frequency identified in Condition D.2.4 be changed from quarterly to annually since this control device exhausts inside the building and because the facility will be following a Preventive Maintenance Plan (PMP) to ensure proper on-going operation of the baghouse.

**Response to Comment 2:**

Quarterly baghouse inspections ensure that the control devices are maintained and functioning properly. The PMP only requires that the source identify who is responsible for maintaining the unit/control device, what will be inspected and how frequently, and what replacement parts will be maintained onsite. Following the requirements of the PMP alone would not ensure the baghouse is functioning properly. No changes to the baghouse inspection frequency will be made to the permit.

**Comment 3:**

The source requests that the Preventive Maintenance Plan (PMP) requirement in Condition D.3.4 for the ultrasonic radial head spring cleaning/degreasing operation and the two small parts washers be removed from the permit renewal since these units do not have add-on control devices and are already subject to other state rules that include equipment operation and work practice requirements.

**Response to Comment 3:**

The PMP only requires that the source identify who is responsible for maintaining the unit/control device, what will be inspected and how frequently, and what replacement parts will be maintained onsite. Although it alludes to only being applicable for units with a control device, IDEM's stance, as the rule is written "any facility specified in 326 IAC 1-6-1 shall prepare", is that the rule can and historically has been applied to emission units subject to any applicable requirements, at a source required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1, not just those units with control devices. The PMP is not required to be submitted to IDEM for review unless requested. The source just needs to keep a copy of the PMP onsite. Since the unit has an applicable requirement, the PMP requirement will remain in the permit.

<b>IDEM Contact</b>
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- (a) Questions regarding this proposed MSOP renewal can be directed to Tamera Wessel at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 834-8530 or toll free at 1-800-451-6027 extension 4-8530.
- (b) A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.idem.in.gov](http://www.idem.in.gov)

**ATSD Appendix A: Emissions Calculations  
Grinding Operations Emission Unit ID# GR**

**Company Name: Monticello Spring Corp.**  
**Address: 3137 South Freeman Road, Monticello, IN 47960**  
**Permit Number: 181-32942-00045**  
**Pit ID: 181-00045**  
**Permit Reviewer: Tamera Wessel**  
**Date: 3/11/2013**

Amount of Material Collected in Baghouse in 2011*	36,000 lbs
Machine Hours of Operation During Collection Period in 2011	5049 hrs
Adjusted Material Collection Rate	7.13 lbs/hr
Control Efficiency of Baghouse	99%
Unlimited Potential to Emit PM/PM10/PM2.5	7.20 lbs/hr
Unlimited Potential to Emit PM/PM10/PM2.5	31.55 tons/yr
Potential to Emit PM/PM10/PM2.5 After Control	0.07 lbs/hr
Potential to Emit PM/PM10/PM2.5 After Control	0.32 tons/yr

\*The amount of material collected in the baghouse was multiplied by a safety factor of 1.5 to ensure the true worst-case scenario is represented.

**Note**

This grinding operation represents the approximately 20 grinding stations that are part of the spring manufacturing lines on the compression spring side of the operation.

This grinding operation is tied into the large baghouse which vents back inside the facility.

**Methodology**

Adjusted Material Collection Rate = (Amount of Material Collected in the Baghouse in 2011 \* 1.5) / Machine Hours of Operation in 2011

Unlimited Potential to Emit (lbs/hr) = Adjusted Material Collection Rate/Control Efficiency %

Unlimited Potential to Emit (tons/yr) = Unlimited Potential to Emit (lbs/hr) \* 8,760 hrs/yr \* 1 ton/2,000 lbs

Potential to Emit After Control (lbs/hr) = Unlimited Potential to Emit (lbs/hr) \* (1-Control Efficiency %)

Potential to Emit After Control (tons/yr) = Unlimited Potential to Emit (tons/yr) \* (1-Control Efficiency %)

**Appendix A: Emissions Calculations  
Oiling/Dipping Operations**

ATSD App A Page 2 of 15

**Company Name: Monticello Spring Corp.**

**Address: 3137 South Freeman Road, Monticello, IN 47960**

**Permit Number: 181-32942-00045**

**Plt ID: 181-00045**

**Permit Reviewer: Tamera Wessel**

**Date: 3/11/2013**

Rust Preventative	Usage in 2011 (gal)	Annual Operating hours	Usage rate (gal/hr)	VOC content (lbs/gal)	PTE of VOC (lbs/hr)	PTE of VOC (tpy)
Castrol 10W Oil	55	5049	0.016	0.00	0.00	0.00
PerKote 30-266-HF	110	5049	0.033	6.02	0.20	0.86
SteelGard 1302-J	18.33	5049	0.005	0.60	3.29E-03	0.01
<b>Total</b>					<b>0.20</b>	<b>0.88</b>

**Notes**

The springs are manually dipped into oil and/or rust preventative.

Operating hours for 2011 calculated based upon 16.5 hours/day \* 6 days/week \* 51 weeks/yr

SteelGard is mixed with water at a proportion of 70% water and 30% preventative

The facility purchases only 1 drum every 3 or 4 years. For the purposes of calculations, the worst-case scenario of 1 drum every 3 years is used.

**Methodology**

Usage rate = Usage in 2011 (gal) / annual operating hours \* 1.5 (safety factor)

PTE of VOC (lbs/hr) = Usage rate (gal/hr) \* VOC content (lbs/gal)

PTE of VOC (tpy) = Usage rate (gal/hr) \* VOC content (lbs/gal) \* 8760 (hrs/yr) /2000 (lbs/ton)

**Appendix A: Emissions Calculations  
Roper Rust Preventive Dipping Operations**

**Company Name: Monticello Spring Corp.  
Address: 3137 South Freeman Road, Monticello, IN 47960  
Permit Number: 181-32942-00045  
Plt ID: 181-00045  
Permit Reviewer: Tamera Wessel  
Date: 3/11/2013**

Rust Preventative	Usage in 2011 (gal)	Annual Operating hours	Usage rate (gal/hr)	VOC content (lbs/gal)	PTE of VOC (lbs/hr)	PTE of VOC (tpy)
Inhibitor 330	18.33	5049	0.005	6.98	0.04	0.17
<b>Total</b>					<b>0.04</b>	<b>0.17</b>

**Notes**

An electric oven is used to heat the springs prior to dipping in the rust inhibitor tank. The rust preventive is then applied by dipping the springs into the inhibitor. Water vapor due to dipping hot springs into the inhibitor is vented outside the facility.

Usage rate (gal/hr) has been scaled up by a safety factor of 1.5 to ensure worst-case scenario is reflected.

This material does not contain any Hazardous Air Pollutants (HAPs)

The facility has not purchased this material in several years so it is assumed that 55 gallons would last 3 years at the maximum usage.

**Methodology**

PTE of VOC (lbs/hr) = Usage rate (gal/hr) \* VOC content (lbs/gal)

PTE of VOC (tpy) = Usage rate (gal/hr) \* VOC content (lbs/gal) \* 8760 (hrs/yr) /2000 (lbs/ton)

**Appendix A: Emissions Calculations  
Degreasing Operations**

**Company Name: Monticello Spring Corp.  
Address: 3137 South Freeman Road, Monticello, IN 47960  
Permit Number: 181-32942-00045  
Plt ID: 181-00045  
Permit Reviewer: Tamera Wessel  
Date: 3/11/2013**

Emission Unit ID#	Material	Maximum Usage Rate (gal/hr)	Weight % VOC	Density (lbs/gal)	PTE of VOC (tons/yr)	HAPs	
						2 - (2-butoxyethoxy) ethanol %	PTE of 2 - (2-butoxyethoxy) ethanol (tons/yr)
9075	n-Propyl Bromide	0.10	100.00%	11.1	4.77	0.00%	0.000
Ultrasonic	Blue Gold	0.02	10.00%	8.93	0.06	9.00%	0.058
Safety Kleen Degreasers (2)	Safety-Kleen Premium Solvent	0.01	100.00%	6.7	0.26	0.00%	0.000
					<b>Total</b>		<b>0.06</b>

55 gal Blue Gold used in 2011  
 330 gal n-propyl bromide used in 2011  
 30 gal Safety-Kleen Premium Solvent used in 2011  
 5049 hrs operated in 2011  
 0.01 Blue Gold Usage rate (gal/hr)  
 0.02 Blue Gold Usage rate (gal/hr) \* 1.5 safety factor for worst-case scenario usage  
 0.07 n-propyl Bromide usage rate (gal/hr)  
 0.10 n-propyl Bromide usage rate (gal/hr) \*1.5 safety factor for worst-case scenario usage  
 0.01 Safety-Kleen Solvent Usage rate (gal/hr)  
 0.01 Safety-Kleen Solvent Usage rate (gal/hr) \* 1.5 safety for worst-case scenario usage

**Notes**

n-Propyl Bromide solvent is used in the conveyORIZED degreaser in a separate room with exhaust to atmosphere through Stack 8. An electric boiler is used to provide steam to heat the NPB solution.

Blue Gold solvent is used in a covered ultrasonic conveyORIZED degreaser with no exhaust for stainless steel injector springs.

Safety-Kleen units (2) are covered tanks used for degreasing/general maintenance purposes. Units are serviced regularly by Safety-Kleen. Assumed worst-case scenario that all solvent added during the course of the year were emitted.

**Methodology**

PTE of VOC (tons/yr) = Maximum Usage Rate (gal/hr) x Density (lbs/gal) x Weight % VOC x 8,760 hrs/yr x 1 ton/2,000 lbs

PTE of HAP (tons/yr) = Maximum Usage Rate (gal/hr) x Density (lbs/gal) x Weight % HAP x 8,760 hrs/yr x 1 ton/2,000 lbs

Blue Gold is used at 5% dilution

**Appendix A: Emissions Calculations**  
**SFM Emission Units ID #7210 & 7211**

**Company Name: Monticello Spring Corp.**  
**Address: 3137 South Freeman Road, Monticello, IN 47960**  
**Permit Number: 181-32942-00045**  
**Plt ID: 181-00045**  
**Permit Reviewer: Tamera Wessel**  
**Date: 3/11/2013**

**VOC and Particulate Emissions**

Material	Substrate	Density (lbs/gal)	Weight % Organics	Maximum Usage (gal/hr)	Pounds VOC per gallon of coating	PTE of VOC (lbs/hr)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE of PM/PM10 (tons/yr)	Transfer Efficiency*
SG-1260	metal	8.1	80.00%	0.0013	6.48	0.00866	0.2079	0.0379	0.00	100.00%
F123	metal	6.76	75.00%	0.0013	5.07	0.00678	0.1627	0.0297	0.00	100.00%
						<b>Worst Case PTE</b>	<b>0.0379</b>	<b>0</b>		

**HAP Emissions**

SG-1260	Neither material contains HAPS
F123	

\* The SFMs use air injector pump applicators to apply surface coating materials to springs. The transfer efficiency is expected to be 100%

**Notes**

These are the 2 spring finishing machines (SFM) at the facility which apply small identification lines of paint.

Maximum usage (gal/hr) is based upon purchase records and annual hours of operation for 2011 and multiplying by a safety factor of 1.5

Since purchase records do not track which line uses the purchased paints, the total for both lines is calculated together.

**METHODOLOGY**

Pounds of VOC per Gallon Coating = Density (lbs/gal) \* Weight % Organics

PTE of VOC (lbs/hr) = Pounds of VOC per Gallon coating (lbs/gal) \* Max Usage (gal/hr)

PTE of VOC (lbs/day) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr) \* (24 hr/day)

PTE of VOC (tons/yr) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr) \* (8,760 hr/yr) \* (1 ton/2,000 lbs)

PTE of PM/PM10 before Control (lbs/hr) = Max. Usage (gal/hr) \* Density (lbs/gal) \* (1- Weight % Volatile) \* (1-transfer efficiency)

PTE of HAPS (tons/yr) = Density (lbs/gal) \* Maximum Usage (gal/hr) \* Weight % HAP \* 8,760 hrs/yr \* 1 ton/2,000 lbs

**Appendix A: Emissions Calculations  
Manual Striping in Secondary Processing Area**

**Company Name: Monticello Spring Corp.  
Address: 3137 South Freeman Road, Monticello, IN 47960  
Permit Number: 181-32942-00045  
Plt ID: 181-00045  
Permit Reviewer: Tamera Wessel  
Date: 3/11/2013**

**VOC and Particulate Emissions**

Material	Substrate	Density (lbs/gal)	Weight % Organics	Maximum Usage (gal/hr)	Pounds VOC per gallon of coating	PTE of VOC (lbs/hr)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE of PM/PM10 (tons/yr)	Transfer Efficiency*
Red Staining Color	metal	7.51	87.95%	0.0168	6.61	0.11	2.67	0.49	0.00	100.00%
Thinner S-1462	metal	7.05	100.00%	0.0168	7.05	0.12	2.85	0.52	0.00	100.00%
<b>Worst Case PTE</b>								<b>1.01</b>	<b>0</b>	

**HAP Emissions**

Material	Density (lbs/gal)	Maximum Usage (gal/hr)	Weight % 2-Butoxy Ethanol	Weight % Methanol	Weight % Methyl Isobutyl Ketone	Weight % Toluene	PTE of 2-Butoxy Ethanol (tons/yr)	PTE of Methanol (tons/yr)	PTE of Methyl Isobutyl Ketone (tons/yr)	PTE of Toluene (tons/yr)	Total PTE of HAPs (tons/yr)
Thinner S-1462	7.05	0.0168	8.33%	8.33%	25.00%	58.30%	0.04	0.04	0.13	0.30	<b>0.52</b>

\*Transfer efficiency is expected to be 100% since the coating is applied by manually dipping the spring into the coating.

**Notes**

Maximum usage (gal/hr) is based upon purchase records and annual hours of operation for 2011 and multiplying by a safety factor of 1.5  
 Since the tumble painter also uses the same paints and the manual striping process is rarely used, it is assumed that in the worst-case scenario 10% of all colors of this type of paint purchased is used by the manual process. This total usage for all paints is then assigned to the worst-case scenario red paint color.  
 This is a new process on the compression spring side of the operations. The spring is manually dipped into a small container of coating and then placed upon a wooden wheel and spun to dry. A wheel has a hood that exhausts outside the facility.

**METHODOLOGY**

Pounds of VOC per Gallon Coating - Density (lbs/gal) \* Weight % Organics  
 PTE of VOC (lbs/hr) = Pounds of VOC per Gallon coating (lbs/gal) \* Max Usage (gal/hr)  
 PTE of VOC (lbs/day) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr) \* (24 hr/day)  
 PTE of VOC (tons/yr) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr) \* (8,760 hr/yr) \* (1 ton/2,000 lbs)  
 PTE of PM/PM10 before Control (lbs/hr) = Max. Usage (gal/hr) \* Density (lbs/gal) \* (1- Weight % Volatile) \* (1-transfer efficiency)  
 PTE of HAPS (tons/yr) = Density (lbs/gal) \* Maximum Usage (gal/hr) \* Weight % HAP \* 8,760 hrs/yr \* 1 ton/2,000 lbs

**Appendix A: Emissions Calculations  
Tumble Painter (Emission Unit ID #9130)**

**Company Name: Monticello Spring Corp.**  
**Address: 3137 South Freeman Road, Monticello, IN 47960**  
**Permit Number: 181-32942-00045**  
**Plt ID: 181-00045**  
**Permit Reviewer: Tamera Wessel**  
**Date: 3/11/2013**

**VOC and Particulate Emissions**

Material	Substrate	Density (lbs/gal)	Weight % Organics	Maximum Usage (gal/hr)	Pounds VOC per gallon of coating	PTE of VOC (lbs/hr)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE of PM/PM10 before Control (tons/yr)	Transfer Efficiency*
Red Staining Color	metal	7.51	87.95%	0.3	6.61	1.98	47.56	8.68	0.20	25.0%
Thinner S-1462	metal	7.05	100.00%	0.3	7.05	2.12	50.76	9.26	0.00	25.0%
<b>Worst Case Total</b>								<b>17.94</b>	<b>0.20</b>	

**HAP Emissions**

Material	Density (lbs/gal)	Maximum Usage (gal/hr)	Weight % 2-Butoxy Ethanol	Weight % Methanol	Weight % Methyl Isobutyl Ketone	Weight % Toluene	PTE of 2-Butoxy Ethanol (tons/yr)	PTE of Methanol (tons/yr)	PTE of Methyl Isobutyl Ketone (tons/yr)	PTE of Toluene (tons/yr)	Total PTE of HAPs (tons/yr)
Thinner S-1462	7.05	0.3	8.33%	8.33%	25.00%	58.30%	0.77	0.77	2.32	5.40	<b>9.26</b>

\*Transfer efficiency based upon air atomized spray gun used by tumble painter and AP-42 Tables 4.2.2.12-1 and 4.2.2.14-1.

**NOTES**

Usage rates based upon purchase records, waste disposal records, and number of parts painted in 2002. The usage in 2002 was much higher than in 2011 or 2012.

Worst-case scenario paint & thinner combination used for calculations.

Paint and thinner mixed at 1:1 ratio.

A spray gun is attached to the tumbler and sprays coatings into the center of the tumbler. Paint chips are collected in a container for overspray PM control. No dry filters are used.

**METHODOLOGY**

Pounds of VOC per Gallon Coating = Density (lbs/gal) \* Weight % Organics

PTE of VOC (lbs/hr) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr)

PTE of VOC (lbs/day) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr) \* (24 hr/day)

PTE of VOC (tons/yr) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr) \* (8,760 hr/yr) \* (1 ton/2,000 lbs)

PTE of PM/PM10 before Control (lbs/hr) = Max. Usage (gal/hr) \* Density (lbs/gal) \* (1- Weight % Volatile) \* (1- Transfer efficiency)

PTE of HAPS (tons/yr) = Density (lb/gal) \* Max. Usage (gal/hr) \* Weight % HAP \* (8,760 hrs/yr) \* (1 ton/2,000 lbs)

**Appendix A: Emissions Calculations  
Abrasive Blasting Operations**

**Company Name: Monticello Spring Corp.  
Address: 3137 South Freeman Road, Monticello, IN 47960  
Permit Number: 181-32942-00045  
Plt ID: 181-00045  
Permit Reviewer: Tamera Wessel  
Date: 3/11/2013**

Unit ID	Description	Max Abrasive Input Rate (lbs/yr)	Type Abrasive Used	PM Emission Factor (lbs/lbs)	PTE of PM before Control (lbs/yr)	PTE of PM before Control (tons/yr)	PM10 Emission Factor (lbs PM10/lbs PM)	PTE of PM10 before Control (lbs/yr)	PTE of PM10 before Control (tons/yr)	Control Device	Control Efficiency	PTE of PM after Control (lbs/yr)	PTE of PM after Control (tons/yr)	PTE of PM10 after Control (lbs/yr)	PTE of PM10 after Control (tons/yr)
9128	PNEU-Blast 4836-SA	10,895	steel shot	0.004	43.58	0.02	0.86	37.48	0.02	baghouse	99%	0.44	0.000	0.37	0.000
9133	Wheelabrator TBR-6	66,453	steel shot	0.004	265.81	0.13	0.86	228.60	0.11	baghouse	99%	2.66	0.001	2.29	0.001
9191	Wheelabrator TB-85	66,453	steel shot	0.004	265.81	0.13	0.86	228.60	0.11	baghouse	99%	2.66	0.001	2.29	0.001
9240	Wheelabrator WTB-6.0	66,453	steel shot	0.004	265.81	0.13	0.86	228.60	0.11	baghouse	99%	2.66	0.001	2.29	0.001
9832	MSC 9832 Viking	177,207	steel shot	0.004	708.83	0.35	0.86	609.59	0.30	baghouse	99%	7.09	0.004	6.10	0.003
9210a	MSC 9210a Empire Blaster	52,050	glass bead	0.01	520.50	0.26	1	520.50	0.26	baghouse	99%	5.20	0.003	5.20	0.003
9210b	MSC 9210b Empire Blaster	52,050	glass bead	0.01	520.50	0.26	1	520.50	0.26	baghouse	99%	5.20	0.003	5.20	0.003
104951				<b>Total PM Uncontrolled</b>	<b>1.30</b>	<b>Total PM10 Uncontrolled</b>	<b>1.19</b>	<b>Total Controlled</b>	<b>25.91</b>	<b>0.01</b>	<b>23.74</b>	<b>0.01</b>			

\*PM emission factors for abrasive blasting were taken from Section 3 of STAPPA/ALAPCO "Confined Abrasive Blasting Cabinets/Rooms" document

**Notes**

- 223320 lbs shot blast purchased in 2012
- 60000 lbs glass bead purchased in 2012
- 5049 hours operated in 2012
- 387460 lbs steel shot purchased in 2012 extrapolated out to represent 8,760 hours of operation
- 104100 lbs glass bead purchased in 2012 extrapolated out to represent 8,760 hours of operation

Maximum abrasive input for each machine is based upon apportioning the total lbs/hr of blast material used based upon the maximum capacity of the machines, as determined by manufacturer specifications.

**Methodology**

- PTE of PM before Control (lbs/hr) = Max. Abrasive Usage (lbs/hr) \* PM Emission Factor (lbs/lbs)
- PTE of PM before Control (tons/yr) = Max. Abrasive Usage (lbs/hr) \* PM Emission Factor (lbs/lbs) \* 8,760 hr/yr \* 1 ton/2,000 lbs
- PTE of PM10 before Control = PTE of PM \* PM10 Emission Factor (lbs/lbs)
- PTE of PM/PM10 after Control = PTE of PM/PM10 before Control \* (1- Control Efficiency)

**Appendix A: Emissions Calculations  
Paint Booth Emissions (PB-1)**

**Company Name: Monticello Spring Corp.  
Address: 3137 South Freeman Road, Monticello, IN 47960  
Permit Number: 181-32942-00045  
Plt ID: 181-00045  
Permit Reviewer: Tamera Wessel  
Date: 3/11/2013**

**VOC and Particulate Emissions**

Material	Substrate	Density (lbs/gal)	Weight % Organics	Number of spray guns	Maximum Spray Rate (gal/hr)	Pounds VOC per gallon of coating	PTE of VOC (lbs/hr)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE of PM/PM10 (tons/yr)	Transfer Efficiency*
Nason Ful-Thane 2k	metal	7.65	58.30%	1	2	5.0	10	240.00	43.80	3.83	40.00%
									<b>Worst Case PTE</b>	<b>43.80</b>	<b>3.83</b>
									<b>Control Efficiency**</b>	-	90%
									<b>Controlled Emissions</b>	<b>43.80</b>	<b>0.38</b>

**HAP Emissions**

Material	Density (lbs/gal)	Maximum Spray Rate (gal/hr)				
Nason Ful-Thane 2k	7.65	2	The paint does not contain any HAPs			
					Total (tons/yr)	0.00

**Cleanup Emissions**

Material	Density (lbs/gal)	Maximum Usage (gal/hr)	Weight % Ethylbenzene	Weight % hexane	Weight % Xylene	Weight % Toluene	PTE of Ethylbenzene (tons/yr)	PTE of N-hexane (tons/yr)	PTE of Xylene (tons/yr)	PTE of Toluene (tons/yr)	Total PTE of HAPs (tons/yr)	Total PTE of VOC (tons/yr)
Nason 441-21 Reducer	6.71	0.25	1.00%	1.00%	4.00%	16.00%	0.07	0.07	0.29	1.18	<b>1.62</b>	<b>0.00</b>

**Notes**

This is a new emission unit. The booth is primarily used to paint equipment built by the facility. The booth is equipped with dry filters for overspray PM control and exhausts to atmosphere. Nason Ful-Thane 2k is the only coating being used in the booth. The Nason 441-21 Reducer is the only solvent used in the booth. Pounds of VOC per gallon is the maximum as listed on the MSDS sheet.

**METHODOLOGY**

Pounds of VOC per Gallon Coating - Density (lbs/gal) \* Weight % Organics  
PTE of VOC (lbs/hr) = Pounds of VOC per Gallon coating (lbs/gal) \* Max Usage (gal/hr)  
PTE of VOC (lbs/day) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr) \* (24 hr/day)  
PTE of VOC (tons/yr) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr) \* (8,760 hr/yr) \* (1 ton/2,000 lbs)  
PTE of PM/PM10 before Control (lbs/hr) = Max. Usage (gal/hr) \* Density (lbs/gal) \* (1- Weight % Volatile) \* (1-transfer efficiency)  
PTE of HAPS (tons/yr) = Density (lbs/gal) \* Maximum Usage (gal/hr) \* Weight % HAP \* 8,760 hrs/yr \* 1 ton/2,000 lbs  
7.48 gal in 1 cubic foot

\*Transfer efficiency was estimated per AP-42 Automobile and Light Duty Truck Surface Coating Operations 4.2.2.8-3 page 4

\*\*Emissions are controlled using dry filters.

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

**Company Name:** Monticello Spring Corp.  
**Address City IN Zip:** 3137 South Freeman Road, Monticello, IN 47960  
**Permit Number:** 181-32942-00045  
**Plt ID:** 181-00045  
**Reviewer:** Tamera Wessel  
**Date:** 3/11/2013

Emission Unit Description	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	HHV
			mmBtu mmscf
Front Office Heater #1	0.120	1.031	1020
Front Office Heater #2	0.120	1.031	
Front Office Heater #3	0.060	0.515	
Maintenance Heater #1	0.125	1.074	
Maintenance Heater #2	0.125	1.074	
Maintenance Heater #3	0.125	1.074	
Training Room Heater	0.120	1.031	
Break Room Heater	0.120	1.031	
AMU in Shipping Department	3.300	28.341	
AMU in Compression Bldg.	3.300	28.341	
AMU in Tension Bldg.	3.300	28.341	
	10.815	92.882	

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.09	0.35	0.35	0.03	4.64	0.26	3.90

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

PM2.5 emission factor is filterable and condensable PM2.5 combined.

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

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

**HAPS Calculations**

Emission Factor in lb/MMcf	HAPs - Organics					Total - Organics
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	9.75E-05	5.57E-05	3.48E-03	0.08	1.58E-04	<b>0.087</b>

Emission Factor in lb/MMcf	HAPs - Metals					Total - Metals
	Lead	Cadmium	Chromium	Manganese	Nickel	
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	2.32E-05	5.11E-05	6.50E-05	1.76E-05	9.75E-05	<b>2.545E-04</b>

Methodology is the same as above.

<b>Total HAPs</b>	<b>0.09</b>
<b>Worst HAP</b>	<b>0.08</b> Hexane

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Greenhouse Gas Calculations**

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2	CH4	N2O
	120,000	2.3	2.2
Potential Emission in tons/yr	5,573	0.1	0.1
Summed Potential Emissions in tons/yr	5,573		
CO2e Total in tons/yr	5,607		

**Methodology**

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.

Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

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

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

**Appendix A: Emissions Calculations  
Welding Operations**

**Company Name: Monticello Spring Corp.  
Address: 3137 South Freeman Road, Monticello, IN 47960  
Permit Number: 181-32942-00045  
Plt ID: 181-00045  
Permit Reviewer: Tamera Wessel  
Date: 3/11/2013**

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS (lb pollutant/lb electrode)				Potential to Emit (tons/year)			
				PM=PM10=PM2.5	Mn	Ni	Cr	PM/PM10/PM2.5	Mn	Ni	Cr
WELDING											
Metal Inert Gas (MIG)(carbon steel) - Maintenance	3	0.04		0.0241	0.000034	NA	0.00001	0.013	0.00002	0	0.00001
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 (tons/year)			
				PM=PM10=PM2.5	Mn	Ni	Cr	PM/PM10/PM2.5	Mn	Ni	Cr
Oxyacetylene Torch	2	8.0	5.0	0.1622	0.0005	0.0001	0.0003	3.410	0.011	0.002	0.001
<b>Totals</b>								<b>3.42</b>	<b>0.011</b>	<b>0.002</b>	<b>0.001</b>

**Notes:**

MIG welding emission factors are from AP 42, Chapter 12-19, Tables 12-19.1 and 12-19.2 (SCC 3-09-052-26) January 1995.

**Methodology:**

PTE (tons/year) = Number of Stations x Electrode Consumption (lbs/hour) x Emission Factor (lbs /lb electrode) x 8760 (hours/year) x 1 ton/2,000 lbs  
 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.

**Company Name: Monticello Spring Corp.**  
**Address: 3137 South Freeman Road, Monticello, IN 47960**  
**MSOP: 181-32942-00045**  
**Plt ID: 181-00045**  
**Permit Reviewer: Tamera Wessel**  
**Date: 3/11/2013**

**VCI Drum Spraying**

**VOC and Particulate Emissions**

Material	Substrate	Density (lbs/gal)	Weight % Organics	Maximum Usage (gal/hr)	Pounds VOC per gallon of coating	PTE of VOC (lbs/hr)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE of PM/PM10 (tons/yr)	Transfer Efficiency*
VCI-338	metal	8.4	91.00%	0.0017	7.64	0.01	0.32	0.06	0.00	100.00%
<b>Worst Case PTE</b>								<b>0.06</b>	<b>0</b>	

**HAP Emissions**

VCI-338	Material does not contain HAPS
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\* The spraying application takes place inside the drum to be coated so the transfer efficiency is expected to be 100%

**Notes**

Maximum usage is based upon purchase records for 2011 and 2012 and extrapolating the annual usage rates to 8,760 hours of operation.

A spray gun is inserted into the drum for spraying rust inhibitor and the lid is lowered as much as possible during the spraying to help retain the rust inhibitor.

**METHODOLOGY**

Pounds of VOC per Gallon Coating - Density (lbs/gal) \* Weight % Organics

PTE of VOC (lbs/hr) = Pounds of VOC per Gallon coating (lbs/gal) \* Max Usage (gal/hr)

PTE of VOC (lbs/day) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr) \* (24 hr/day)

PTE of VOC (tons/yr) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr) \* (8,760 hr/yr) \* (1 ton/2,000 lbs)

PTE of PM/PM10 (tons/yr) = Max. Usage (gal/hr) \* Density (lbs/gal) \* (1- Weight % Volatile) \* (1-transfer efficiency)\*8760 (hrs/yr) /2000 (tons/lb)

**Appendix A: Emission Calculations  
Fugitive Dust Emissions - Paved Roads**

**Company Name: Monticello Springs  
Source Address: 3137 S. Freeman Road, Monticello, IN  
Permit Number: 181-32942-00045  
Reviewer: Tamera Wessel  
Date: 3/11/2013**

**Paved Roads at Industrial Site**

The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Information (provided by source)

Type	Maximum number of vehicles per day*	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)**	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)***	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Employee Vehicle (entering plant) (one-way trip)	80.0	1.5	120.0	2.2	259.3	450	0.085	10.2	3733.0
Employee Vehicle (leaving plant) (one-way trip)	80.0	1.5	120.0	2.2	264.0	450	0.085	10.2	3733.0
Truck (entering plant) (one-way trip)	3.0	1.0	3.0	30.0	90.0	400	0.076	0.2	83.0
Truck (leaving plant) (one-way trip)	3.0	1.0	3.0	30.0	90.0	400	0.076	0.2	83.0
<b>Totals</b>			<b>246.0</b>		<b>703.3</b>			<b>20.9</b>	<b>7631.8</b>

Average Vehicle Weight Per Trip =  $\frac{2.9}{0.08}$  tons/trip      \* Based upon number of current employees plus 10%. Assumed 1.5 trips in and out (1/2 for lunch due to carpool)  
 Average Miles Per Trip =  $\frac{0.08}{0.08}$  miles/trip      \*\* Based upon average weight of car/light duty truck of 4021 lbs per New York Times May 5, 2004 plus 1 individual at 300 lbs  
 Unmitigated Emission Factor, Ef =  $[k * (sL)^{0.91} * (W)^{1.02}]$  (Equation 1 from AP-42 13.2.1)      \*\*\* Obtained from google earth measurements

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	2.9	2.9	2.9	tons = average vehicle weight (provided by source)
sL =	9.7	9.7	9.7	g/m <sup>2</sup> = silt loading value for paved roads at iron and steel production facilities - Table 13.2.1-3)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext =  $E * [1 - (p/4N)]$  (Equation 2 from AP-42 13.2.1)

Mitigated Emission Factor, Eext =  $Ef * [1 - (p/4N)]$   
 where p =  $\frac{125}{365}$  days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)  
 N = 365 days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.254	0.051	0.0125	lb/mile
Mitigated Emission Factor, Eext =	0.232	0.046	0.0114	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Employee Vehicle (entering plant) (one-way trip)	0.47	0.09	0.02	0.43	0.09	0.02
Employee Vehicle (leaving plant) (one-way trip)	0.47	0.09	0.02	0.43	0.09	0.02
Truck (entering plant) (one-way trip)	0.01	0.00	0.00	0.01	0.00	0.00
Truck (leaving plant) (one-way trip)	0.01	0.00	0.00	0.01	0.00	0.00
<b>Totals</b>	<b>0.97</b>	<b>0.19</b>	<b>0.05</b>	<b>0.89</b>	<b>0.18</b>	<b>0.04</b>

**Methodology**

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] \* [Maximum trips per day (trip/day)]  
 Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]  
 Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] \* [Maximum one-way distance (mi/trip)]  
 Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]  
 Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]  
 Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] \* [Unmitigated Emission Factor (lb/mile)] \* (ton/2000 lbs)  
 Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] \* [Mitigated Emission Factor (lb/mile)] \* (ton/2000 lbs)

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 PM2.5 = Particle Matter (<2.5 um)  
 PTE = Potential to Emit

**Appendix A: Emission Calculations  
Fugitive Dust Emissions - Unpaved Roads**

**Company Name: Monticello Springs**  
**Address City IN Zip: 3137 S. Freeman, Monticello, IN**  
**Permit Number: 181-32942-00045**  
**Plt ID: 181-00045**  
**Reviewer: Tamera Wessel**  
**Date: 3/11/2013**

**Unpaved Roads at Industrial Site**

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (11/2006).

Vehicle Information (provided by source)

Type	Maximum number of vehicles	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Vehicle (entering plant) (one-way trip)	80.0	1.5	120.0	2.2	264.0	200	0.038	4.5	1659.1
Vehicle (leaving plant) (one-way trip)	80.0	1.5	120.0	2.2	264.0	200	0.038	4.5	1659.1
<b>Totals</b>			<b>240.0</b>		<b>528.0</b>			<b>9.1</b>	<b>3318.2</b>

Average Vehicle Weight Per Trip =  tons/trip  
 Average Miles Per Trip =  miles/trip

Unmitigated Emission Factor,  $E_f = k \cdot [(s/12)^a] \cdot [(W/3)^b]$  (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-1 Sand/Gravel Processing Plant)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)
W =	2.2	2.2	2.2	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor,  $E_{ext} = E \cdot [(365 - P)/365]$  (Equation 2 from AP-42 13.2.2)

Mitigated Emission Factor,  $E_{ext} = E \cdot [(365 - P)/365]$   
 where P =  days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, $E_f =$	2.24	0.57	0.06	lb/mile
Mitigated Emission Factor, $E_{ext} =$	1.48	0.38	0.04	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Vehicle (entering plant) (one-way trip)	1.86	0.47	0.05	1.22	0.31	0.03
Vehicle (leaving plant) (one-way trip)	1.86	0.47	0.05	1.22	0.31	0.03
<b>Totals</b>	<b>3.72</b>	<b>0.95</b>	<b>0.09</b>	<b>2.45</b>	<b>0.62</b>	<b>0.06</b>

**Methodology**

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] \* [Maximum trips per day (trip/day)]  
 Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]  
 Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] \* [Maximum one-way distance (mi/trip)]  
 Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]  
 Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]  
 Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) \* (Unmitigated Emission Factor (lb/mile)) \* (ton/2000 lbs)  
 Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) \* (Mitigated Emission Factor (lb/mile)) \* (ton/2000 lbs)

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 PM2.5 = Particulate Matter (<2.5 um)  
 PTE = Potential to Emit

Company Name: Monticello Spring Corp.

Address: 3137 South Freeman Road, Monticello, IN 47960

Permit Number: 181-32942-00045

Plt ID: 181-00045

Permit Reviewer: Tamera Wessel

Date: 3/11/2013

**Facility-Wide Emissions Summary  
Unlimited Potential to Emit (tons/yr)**

Emission Unit	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs	Single HAP	Total HAPs
Grinding Operation	31.55	31.55	31.55							
Degreasing						5.09			0.06 2-(2-butoxyethoxy) ethanol	0.06
Roper Rust Preventive						0.17				
SFM (Spring Finishing Machine)	0.00	0.00	0.00			0.04				0.00
Manual Striping						1.01			0.30 Toluene	0.52
Tumble Painter	0.20	0.20	0.20			17.94			5.40 Toluene	9.26
Abrasive Blasting	1.30	1.19	1.19							
Paint Booth	3.83	3.83	3.83			43.80			1.18 Toluene	1.62
Welding	3.42	3.42	3.42						0.01 Manganese	0.01
Combustion Units	0.09	0.35	0.35	0.03	4.64	0.26	3.90	5,607	0.08 Hexane	0.09
VCI Drum Spraying						0.06				
Oiling Dipping Operations						0.88				
Fugitive Emissions	3.33	0.80	0.11							
Sweco Vibrating Finisher*	Negl.	Negl.	Negl.							
<b>Total</b>	<b>43.72</b>	<b>41.34</b>	<b>40.64</b>	<b>0.03</b>	<b>4.64</b>	<b>69.24</b>	<b>3.90</b>	<b>5,607</b>	<b>6.88</b> <b>Toluene</b>	<b>11.56</b>

\*Emissions from this unit are expected to be negligible (Negl.) because an aqueous solution continuously floods the interface.

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

Technical Support Document (TSD) for a  
Minor Source Operating Permit (MSOP) Renewal

**Source Background and Description**

<b>Source Name:</b>	Monticello Spring Corporation
<b>Source Location:</b>	3137 South Freeman Road, Monticello, IN 47960
<b>County:</b>	White
<b>SIC Code:</b>	3495 (Wire Springs)
<b>Permit Renewal No.:</b>	M181-32942-00045
<b>Permit Reviewer:</b>	Tamera Wessel

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Monticello Spring Corporation relating to the operation of a stationary metal spring manufacturing facility. On March 9, 2013, Monticello Spring Corporation submitted an application to the OAQ requesting to renew its operating permit. Monticello Spring Corporation was issued a MSOP M181-21844-00045 on July 9, 2008.

**Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units:

- (a) One (1) tumble painter, identified as ID # 9130, constructed in 1982, used to paint metal parts with an air atomization application method, with a maximum capacity of 0.30 gallons of paint per hour, with emissions controlled by a separation unit, which exhausts to stack 9A-PV002.
- (b) One (1) grinding operation, consisting of multiple grinding stations that are part of the spring manufacturing lines on the compression side of the building, identified as ID # GR, constructed in 1975, with a maximum capacity of 104 pounds of metal springs per hour, with emissions controlled by a large baghouse, which exhausts inside the building.
- (c) Ultrasonic radial head spring cleaning/degreasing operations using Blue Gold cleaner in a conveyORIZED degreaser, constructed after July 1, 1990, with a maximum usage rate of 0.02 gallons of cleaner per hour.
- (d) One (1) shot blasting operation consisting of the following individual shot blasting units:
  - (1) one (1) shot blaster, identified as 9128, constructed in 1990, blasting steel shot with a maximum abrasive input rate of 2,951 pounds of blasting media per hour, controlled with a baghouse which exhausts inside the building,
  - (2) one (1) shot blaster, identified as 9133, constructed in 1990, blasting steel shot with a maximum abrasive input rate of 18,000 pounds of blasting media per hour, controlled with a baghouse which exhausts inside the building,
  - (3) one (1) shot blaster, identified as 9191, constructed in 1990, blasting steel shot with a maximum abrasive input rate of 18,000 pounds of blasting media per hour, controlled with a baghouse which exhausts inside the building,

- (4) one (1) shot blaster, identified as 9240, constructed in 1990, blasting steel shot with a maximum abrasive input rate of 18,000 pounds of blasting media per hour, controlled with a baghouse which exhausts inside the building,
- (5) one (1) shot blaster, identified as 9832, constructed in 1990, blasting steel shot with a maximum abrasive input rate of 48,000 pounds of blasting media per hour, which vents to the large baghouse controlling grinding operations, which exhausts inside the building,
- (6) two (2) shot blasters, identified as 9210a and 9210b, both constructed in 1990, each blasting glass bead with a maximum abrasive input rate of 258 pounds of blasting media per hour, controlled with a baghouse which exhausts inside the building.
- (e) One (1) degreasing operation, identified as ID # 9075, constructed in 1975, with a maximum usage rate of 0.10 gallons of NPB solvent per hour, with emissions exhausted to stack 8-DV001.
- (f) One (1) spring finishing machine, identified as ID # 7210, constructed in 1990, with a maximum throughput rate of 0.0013 gallons per hour, with emissions exhausting inside the building and using no control.

<b>Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit</b>
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The source also consists of the following emission units that were constructed and/or are operating without a permit:

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, consisting of:
  - (1) One (1) rapid air make-up unit, located in the shipping department, constructed in 1990, rated at 3.3 MMBtu per hour.
  - (2) One (1) rapid air make-up unit, located in the compression building, constructed in 1990, rated at 3.3 MMBtu per hour.
  - (3) One (1) rapid air make-up unit, located in the tension building, constructed in 2007, rated at 3.3 MMBtu per hour.
  - (4) Two (2) space heaters, identified as heater #1 and heater #2, located in the front office, constructed in 1990, rated at 0.120 MMBtu per hour for each unit.
  - (5) One (1) space heater, identified as heater #3, located in the front office, constructed in 1990, rated at 0.060 MMBtu per hour.
  - (6) Three (3) space heaters, identified as heaters #1, #2, and #3, located in maintenance, constructed in 1990, rated at 0.125 MMBtu per hour for each unit.
  - (7) One (1) space heater, located in the training room, constructed in 1990, rated at 0.120 MMBtu per hour.
  - (8) One (1) space heater, located in the break room, constructed in 1990, rated at 0.120 MMBtu per hour.
- (b) One (1) paint booth, identified as PB-1, constructed in 1972, with a maximum spray rate of 2 gallons per hour, using dry filters for particulate control and exhausting to vent PB-1.

- (c) One (1) spring finishing machine, identified as ID # 7211, constructed in 1994, with a maximum throughput rate of 0.0013 gallons per hour, with emissions exhausting inside the building and using no control.
- (d) Three (3) MIG welders with a maximum consumption of 0.04 pounds per hour of electrode, per station.
- (e) Two (2) oxyacetylene torches with a maximum metal cutting rate of 5 inches per minute each.
- (f) Two (2) small parts washers for maintenance degreasing using organic solvent with a maximum combined solvent usage rate of 0.01 gallons per hour.
- (g) One (1) oiling/dipping operation, constructed in 1990, with a maximum combined oil and rust preventative usage rate of 0.054 gallons per hour, exhausting inside the building and using no emission control.
- (h) One (1) roper rust preventative dipping operation, constructed in 1994, with a maximum rust preventative usage rate of 0.005 gallons per hour, exhausting outside the building via a wall exhaust fan.
- (i) One (1) VCI drum spraying operation, constructed in 2007, with a maximum rust inhibitor usage rate of 0.0017 gallons per hour, exhausting inside the building and using no emission control.
- (j) One (1) manual striping process, constructed in 2011, with a maximum paint and solvent usage rate of 0.0168 gallons per hour each, with emissions from the wooden wheel, used to spin dry the coatings, exhausted outside the building through an exhaust stack.
- (k) One (1) Sweco vibrating finisher, constructed in 2011, exhausting indoors with no control.

**Emission Units and Pollution Control Equipment Removed From the Source**

**The source has removed the following emission units:**

- (a) One (1) drop striper, identified as ID # 9260, constructed in 1999, used to paint metal parts with a gravity fed impact pad applicator, with a maximum capacity of 0.0001 gallons of paint per hour, with emissions exhausted inside the building.

**Existing Approvals**

Since the issuance of the MSOP 181-21844-00045 on July 9, 2008, the source has not operated under any other additional approvals.

**Enforcement Issue**

IDEM is aware that equipment 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 "Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit".

IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

### Emission Calculations

See Appendix A of this document for detailed emission calculations.

### County Attainment Status

The source is located in White County.

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O <sub>3</sub>	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard. <sup>1</sup>
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Not designated.

<sup>1</sup>Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.  
Unclassifiable or attainment effective April 5, 2005, for PM<sub>2.5</sub>.

- (a) **Ozone Standards**  
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. White 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.
- (b) **PM<sub>2.5</sub>**  
White County has been classified as attainment for PM<sub>2.5</sub>. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM<sub>2.5</sub> emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct PM<sub>2.5</sub> significant level at ten (10) tons per year. This rule became effective, June 28, 2011.. Therefore, direct PM<sub>2.5</sub>, SO<sub>2</sub>, 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.
- (c) **Other Criteria Pollutants**  
White County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

### Fugitive Emissions

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

**Unrestricted Potential Emissions**

This table reflects the unrestricted potential emissions of the source.

<b>Unrestricted Potential Emissions</b>	
<b>Pollutant</b>	<b>Tons/year</b>
PM	43.72
PM <sub>10</sub>	41.34
PM <sub>2.5</sub>	40.64
SO <sub>2</sub>	0.03
VOC	69.24
CO	3.90
NO <sub>x</sub>	4.64
GHGs as CO <sub>2</sub> e	5,607

<b>HAPs</b>	<b>Tons/year</b>
2-(2-butoxyethoxy) ethanol	0.06
2-Butoxy Ethanol	0.81
Ethylbenzene	0.07
N-hexane	0.07
Toluene	6.88
Xylene	0.29
Hexane	0.08
Methanol	0.81
Methyl Isobutyl Ketone	2.45
Manganese	0.01
<b>Total</b>	<b>11.56</b>

Appendix A of this TSD reflects the unrestricted potential emissions of the source.

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all regulated pollutants, excluding GHGs, is less than 100 tons per year. However, PM, PM10, PM2.5 and VOC are equal to or greater than twenty-five (25) tons per year. The source is not subject to the provisions of 326 IAC 2-7. Therefore, the source will be issued an MSOP Renewal.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of GHGs is less than one hundred thousand (100,000) tons of CO<sub>2</sub> equivalent emissions (CO<sub>2</sub>e) per year.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source will be issued an MSOP Renewal.

<b>Federal Rule Applicability</b>
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**Compliance Assurance Monitoring (CAM)**

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

**New Source Performance Standards (NSPS)**

- (b) The requirements of the New Source Performance Standards for Metal Coil Surface Coating (40 CFR 60, Subpart TT) are not included in this permit for the metal coil surface coating operations. These facilities do not apply an organic coating to the surface of a continuous metal strip with a thickness of 0.15 millimeter (mm) or more that is packaged in a roll or coil.
- (c) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this permit renewal.

**National Emission Standards for Hazardous Air Pollutants (NESHAPs)**

- (d) The National Emission Standards for Hazardous Air Pollutants for Surface Coating of Metal Coil (40 CFR 63.5090, Subpart SSSS) are not included in this permit for the paint tumbler and drop striper. This source is not a major source of HAPs.
- (e) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products (40 CFR 63, Subpart MMMM) are not included in this permit for the coil surface coating operations because this source is not a major source of HAPs.
- (f) The requirements of 326 IAC 20 and 40 CFR Part 63, Subpart T (National Emission Standards for Halogenated Solvent Cleaning) are not included in this permit for the degreasing operations. The degreasing operations do not use halogenated solvents.
- (g) The requirements of the National Emission Standards for Hazardous Air Pollutants for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources (40 CFR 63, Subpart HHHHHH) are not included in this permit. The source does not use coatings containing the target HAPs of chromium, lead, manganese, or cadmium.
- (h) The requirements of the National Emission Standards for Hazardous Air Pollutants for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX) are not included in this permit because the source is not primarily engaged in one of the listed source categories.
- (i) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR Part 61 and 63, and 326 IAC 14 and 20) included in this permit renewal.

<b>State Rule Applicability - Entire Source</b>
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**326 IAC 2-2 (PSD)**

This source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit of all attainment regulated criteria pollutants are less than 250 tons per year, the potential to emit greenhouse gases (GHGs) is less than 100,000 tons of CO<sub>2</sub>e per year, and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

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

The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.

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

This source is not subject to 326 IAC 2-6 (Emission Reporting) because it is not required to have an operating permit pursuant to 326 IAC 2-7 (Part 70); it is not located in Lake, Porter, or LaPorte County, and its potential to emit lead is less than 5 tons per year. Therefore, this rule does 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, in a manner that would violate 326 IAC 6-4.

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

The source is not subject to the requirements of 326 IAC 6-5, because the potential fugitive particulate emissions are less than 25 tons per year.

**326 IAC 6.5 (PM Limitations Except Lake County)**

This source is not subject to 326 IAC 6.5 because it is not located in one of the following counties: Clark, Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo or Wayne.

**326 IAC 12 (New Source Performance Standards)**

See Federal Rule Applicability Section of this TSD.

**326 IAC 20 (Hazardous Air Pollutants)**

See Federal Rule Applicability Section of this TSD.

<b>State Rule Applicability – Individual Facilities</b>
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**Surface Coating (Tumble Painter, Paint Booth, and Manual Striper)**

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

- (a) Pursuant to 326 IAC 6-3-2(d), particulate emissions from the tumble painter (ID #9130) and paint booth (PB-1) shall be controlled by a dry particulate filter, waterwash, or an equivalent control device and the Permittee shall operate the control device in accordance with manufacturer's specifications.

- (b) Pursuant to 326 IAC 6-3-1(b), surface coating operations using flow coating, brush coating, and aerosol coating products are exempt from the requirements of 326 IAC 6-3-2. The manual striping process applies a thin strip of paint with a sponge, which is equivalent to brush application. Therefore, the manual striper is not subject to the requirements of 326 IAC 6-3-2(d).

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

- (a) The tumble painter and manual striper were both constructed after January 1, 1980 in White County. However, neither facility has the potential to emit twenty-five (25) tons per year or more of VOC. Therefore, the tumble painter and manual striper are not subject to the requirements of 326 IAC 8-1-6.
- (b) The paint booth, identified as PB-1, was constructed prior to rule applicability date of January 1, 1980; therefore, the requirements of 326 IAC 8-1-6 are not applicable to the paint booth.

326 IAC 8-2 (Surface Coating Emission Limitations)

- (a) The tumble painter, identified as ID # 9130, was constructed in 1982 in White County and does not have the potential to emit twenty-five (25) tons per year or more of VOC. Therefore, the tumble painter is not subject to the requirements of 326 IAC 8-2.
- (b) The manual striping was begun after July 1, 1990 in White County and does not have the potential to emit fifteen (15) pounds per day or more of VOC. Therefore, the manual striping is not subject to the requirements of 326 IAC 8-2.
- (c) The paint booth, identified as PB-1, located in White County and constructed in 1972, coats miscellaneous metal and plastic parts. Pursuant to 326 IAC 8-2-1 and 326 IAC 8-2-9, facilities constructed in a listed county before November 1, 1980, which are located at a source with potential emissions of 100 tons per year or more of VOC, and which meet the criteria of 326 IAC 8-2-9(a), shall comply with the applicable requirements of 326 IAC 8-2-9. Facilities existing in specifically listed counties as of July 1, 1990, or that are newly constructed in any county after July 1, 1990, with actual emissions of greater than 15 pounds of VOC per day before add on controls, shall likewise comply with the applicable requirements of 326 IAC 8-2-9.

The paint booth, which was constructed in 1972, is not subject to any rule under 326 IAC 8-2 since it is located in White County, which is a non-listed county, and the source has potential emissions of VOC of less than 100 tons per year. Therefore, the requirements of this rule do not apply to the paint booth and are not included in the permit.

**Grinding and Blasting**

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

- (a) Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from the grinding operation shall not exceed 0.57 pounds per hour when operating at a process weight rate of 104 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 sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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

The grinding operation will comply with this limit by operating a baghouse at all times the grinding facilities are in operation. Based on the emission calculations in Appendix A, the grinding operation can comply with this limit.

- (b) Pursuant to 326 IAC 6-3-1(b)(14), manufacturing processes with potential emissions less than five hundred fifty-one thousandths (0.551) pound per hour, shall be exempt from this rule. Each of the blasting units has a potential emission of particulate matter less than five hundred fifty-one thousandths (0.551). Therefore, the requirements of this rule do not apply to the abrasive blasting units.

## Degreasing Operations

### 326 IAC 8-3 (Organic Solvent Degreasing Operations)

- (a) The degreasing operation identified as ID # 9075 is not subject to the requirements of 326 IAC 8-3 because it was constructed before January 1, 1980, the source is not located in Clark, Elkhart, Floyd, Lake, Marion, Porter, or St. Joseph County, and is not located at a source that has potential emissions of one hundred tons or greater per year of VOC.
- (b) The conveyORIZED degreaser was constructed in White County after July 1, 1990 and has an air to solvent interface greater than two (2) square meters (twenty-one and six-tenths (21.6) square feet). Therefore the conveyORIZED degreaser would be subject to the requirements of 326 IAC 8-3-4(a) and 326 IAC 8-3-4(b). However, the Permittee has decided to limit the input of VOC to less than fifteen (15) pounds per day. Compliance with this limit shall render the requirements of 326 IAC 8-3-4 not applicable.
- (c) The degreasing operation identified as the two (2) small parts washers were constructed in White County after July 1, 1990. Therefore the covered tank degreasers are subject to the following requirements:
  - (1) Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Operations) for cold cleaner degreasers without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall:
    - (A) Equip the degreaser with a cover.
    - (B) Equip the degreaser with a device for draining cleaned parts.
    - (C) Close the degreaser cover whenever parts are not being handled in the degreaser.
    - (D) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.
    - (E) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (C), (D), (F), and (G).
    - (F) Store waste solvent only in closed containers.
    - (G) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.
  - (2) Ensure the following additional control equipment and operating requirements are met:

- (A) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):
  - (i) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
  - (ii) A water cover when solvent used is insoluble in, and heavier than, water.
  - (iii) A refrigerated chiller.
  - (iv) Carbon adsorption.
  - (v) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.
- (B) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.
- (C) If used, solvent spray:
  - (i) must be a solid, fluid stream; and
  - (ii) shall be applied at a pressure that does not cause excessive splashing.

326 IAC 8-3-8 (Material requirements for cold cleaner degreasers)

326 IAC 8-3-8 applies to any person who sells, offers for sale, uses, or manufactures solvent for use in cold cleaner degreasers before January 1, 2015, in Clark, Floyd, Lake or Porter Counties or on and after January 1, 2015, anywhere in the state. This source is located in White County and uses solvent in a cold cleaner degreaser. Therefore, effective January 1, 2015, the degreasing operation is subject to the requirements of 326 IAC 8-3-8.

- (a) Material requirements are as follows:
  - (1) No person shall operate a cold cleaner degreaser with a solvent that has a VOC composite partial vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
- (b) Record keeping requirements are as follows:
  - (1) All persons subject to the requirements of subsection (a)(1) shall maintain each of the following records for each purchase:
    - (A) The name and address of the solvent supplier.
    - (B) The date of purchase (or invoice/bill date of contract servicer indicating service date).
    - (C) The type of solvent purchased.
    - (D) The total volume of the solvent purchased.
    - (E) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty eight (68) degrees Fahrenheit).

- (c) All records required by subsection (b) shall be:
- (1) retained on-site or accessible electronically from the site for the most recent three (3) year period; and
  - (2) reasonably accessible for an additional two (2) year period.

### **Combustion Units**

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

The two (2) natural gas-fired rapid air make-up units and space heaters are not sources of indirect heating. Therefore, 326 IAC 6-2-4 is not applicable to these units.

### **Welding**

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

Pursuant to 326 IAC 6-3-1(b)(9), the welding operation is exempt from the requirements of 326 IAC 6-3-2 because each welder consumes less than 625 pounds of rod or wire per day. Therefore, the requirements of this rule do not apply to the welding operation and are not included in the permit.

### **Torch Cutting**

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

Pursuant to 326 IAC 6-3-1(b)(10), the torch cutting operation is exempt from the requirements of 326 IAC 6-3-2 because the torch cutting operation cuts less than three thousand four hundred (3,400) inches per hour of stock one (1) inch thickness. Therefore, the requirements of this rule do not apply to the torch cutting operation and are not included in the permit.

### **Oiling/Dipping Operation**

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

Pursuant to 326 IAC 6-3-1(b)(5), surface coating using dip coating is an exempt manufacturing process. Therefore, the requirements of this rule do not apply to the oiling/dipping operation and are not included in the permit.

#### 326 IAC 8-2-1 (Surface Coating Emissions Limitations)

This facility is located in White County and was constructed after, the potential to emit of VOC from the oiling/dipping facility is less than twenty-five (25) tons per year and actual emissions are less than fifteen (15) pounds per day. Therefore, pursuant to 326 IAC 8-2-1 and 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) do not apply.

### **Roper Rust Preventive**

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

Pursuant to 326 IAC 6-3-1(b)(5), surface coating using dip coating is an exempt manufacturing process. The rust preventive coating is applied by dipping. Therefore, the requirements of this rule do not apply to the roper rust preventive application and are not included in the permit.

#### 326 IAC 8-2-1 (Surface Coating Emissions Limitations)

This facility is located in White County and was constructed after November 1, 1980, the potential to emit of VOC from the roper rust preventive facility is less than twenty-five (25) tons per year and actual emissions are less than fifteen (15) pounds per day. Therefore, pursuant to 326 IAC 8-2-1 and 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) do not apply.

### VCI Drum Spraying Operation

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

Pursuant to 326 IAC 6-3-1(b)(15), surface coating manufacturing processes that use less than five (5) gallons per day are exempt from this rule. The VCI drum spraying operation uses less than five (5) gallons of coating per day. Therefore, the requirements of this rule do not apply to the VCI drum spraying operation and are not included in the permit.

#### 326 IAC 8-2-1 (Surface Coating Emissions Limitations)

This facility is located in White County and was constructed after November 1, 1980, the potential to emit of VOC from the VCI drum spraying facility is less than twenty-five (25) tons per year and actual emissions are less than fifteen (15) pounds per day. Therefore, pursuant to 326 IAC 8-2-1 and 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) do not apply.

### Vibrating Finisher

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

Pursuant to 326 IAC 6-3-1(b)(14), manufacturing processes with potential emissions less than five hundred fifty-one thousandths (0.551) pounds per hour are exempt from this rule. Potential to emit of particulate matter from the vibrating finisher is less than 0.551 pounds per hour. Therefore, the requirements of this rule do not apply to the vibrating finisher.

### Compliance Determination and Monitoring Requirements

- (a) The compliance determination and monitoring requirements applicable to the source are as follows:

(1)

Emission Unit/Control	Operating Parameters	Frequency
Grinding operation/baghouse	Baghouse Inspections	Quarterly

These monitoring conditions are necessary to ensure compliance with the particulate matter limits in 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes).

- (2) Compliance with the VOC input limitation for the ultrasonic radial head spring cleaning conveyorized degreaser shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.
- (b) There are no applicable testing requirements included in this permit.

### Recommendation

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

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

An application for the purposes of this review was received on March 11, 2013. Additional information was received on May 29th and July 15th, 2013.

**Conclusion**

The operation of this metal spring manufacturing facility shall be subject to the conditions of the attached MSOP Renewal No. M181-32942-00045.

**IDEM Contact**

- (a) Questions regarding this proposed permit can be directed to Tamera Wessel at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-8530 or toll free at 1-800-451-6027 extension 4-8530.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.idem.in.gov](http://www.idem.in.gov)

**Appendix A: Emissions Calculations  
Grinding Operations Emission Unit ID# GR**

**Company Name: Monticello Spring Corp.**  
**Address: 3137 South Freeman Road, Monticello, IN 47960**  
**Permit Number: 181-32942-00045**  
**Pit ID: 181-00045**  
**Permit Reviewer: Tamera Wessel**  
**Date: 3/11/2013**

Amount of Material Collected in Baghouse in 2011*	36,000 lbs
Machine Hours of Operation During Collection Period in 2011	5049 hrs
Adjusted Material Collection Rate	7.13 lbs/hr
Control Efficiency of Baghouse	99%
Unlimited Potential to Emit PM/PM10/PM2.5	7.20 lbs/hr
Unlimited Potential to Emit PM/PM10/PM2.5	31.55 tons/yr
Potential to Emit PM/PM10/PM2.5 After Control	0.07 lbs/hr
Potential to Emit PM/PM10/PM2.5 After Control	0.32 tons/yr

\*The amount of material collected in the baghouse was multiplied by a safety factor of 1.5 to ensure the true worst-case scenario is represented.

**Note**

This grinding operation represents the approximately 20 grinding stations that are part of the spring manufacturing lines on the compression spring side of the operation.

This grinding operation is tied into the large baghouse which vents back inside the facility.

**Methodology**

Adjusted Material Collection Rate = (Amount of Material Collected in the Baghouse in 2011 \* 1.5) / Machine Hours of Operation in 2011

Unlimited Potential to Emit (lbs/hr) = Adjusted Material Collection Rate/Control Efficiency %

Unlimited Potential to Emit (tons/yr) = Unlimited Potential to Emit (lbs/hr) \* 8,760 hrs/yr \* 1 ton/2,000 lbs

Potential to Emit After Control (lbs/hr) = Unlimited Potential to Emit (lbs/hr) \* (1-Control Efficiency %)

Potential to Emit After Control (tons/yr) = Unlimited Potential to Emit (tons/yr) \* (1-Control Efficiency %)

**Appendix A: Emissions Calculations  
Oiling/Dipping Operations**

TSD App A Page 2 of 15

**Company Name: Monticello Spring Corp.**

**Address: 3137 South Freeman Road, Monticello, IN 47960**

**Permit Number: 181-32942-00045**

**Plt ID: 181-00045**

**Permit Reviewer: Tamera Wessel**

**Date: 3/11/2013**

Rust Preventative	Usage in 2011 (gal)	Annual Operating hours	Usage rate (gal/hr)	VOC content (lbs/gal)	PTE of VOC (lbs/hr)	PTE of VOC (tpy)
Castrol 10W Oil	55	5049	0.016	0.00	0.00	0.00
PerKote 30-266-HF	110	5049	0.033	6.02	0.20	0.86
SteelGard 1302-J	18.33	5049	0.005	0.60	3.29E-03	0.01
<b>Total</b>					<b>0.20</b>	<b>0.88</b>

**Notes**

The springs are manually dipped into oil and/or rust preventative.

Operating hours for 2011 calculated based upon 16.5 hours/day \* 6 days/week \* 51 weeks/yr

SteelGard is mixed with water at a proportion of 70% water and 30% preventative

The facility purchases only 1 drum every 3 or 4 years. For the purposes of calculations, the worst-case scenario of 1 drum every 3 years is used.

**Methodology**

Usage rate = Usage in 2011 (gal) / annual operating hours \* 1.5 (safety factor)

PTE of VOC (lbs/hr) = Usage rate (gal/hr) \* VOC content (lbs/gal)

PTE of VOC (tpy) = Usage rate (gal/hr) \* VOC content (lbs/gal) \* 8760 (hrs/yr) / 2000 (lbs/ton)

**Appendix A: Emissions Calculations  
Roper Rust Preventive Dipping Operations**

**Company Name: Monticello Spring Corp.  
Address: 3137 South Freeman Road, Monticello, IN 47960  
Permit Number: 181-32942-00045  
Plt ID: 181-00045  
Permit Reviewer: Tamera Wessel  
Date: 3/11/2013**

Rust Preventative	Usage in 2011 (gal)	Annual Operating hours	Usage rate (gal/hr)	VOC content (lbs/gal)	PTE of VOC (lbs/hr)	PTE of VOC (tpy)
Inhibitor 330	18.33	5049	0.005	6.98	0.04	0.17
<b>Total</b>					<b>0.04</b>	<b>0.17</b>

**Notes**

An electric oven is used to heat the springs prior to dipping in the rust inhibitor tank. The rust preventive is then applied by dipping the springs into the inhibitor. Water vapor due to dipping hot springs into the inhibitor is vented outside the facility.

Usage rate (gal/hr) has been scaled up by a safety factor of 1.5 to ensure worst-case scenario is reflected.

This material does not contain any Hazardous Air Pollutants (HAPs)

The facility has not purchased this material in several years so it is assumed that 55 gallons would last 3 years at the maximum usage.

**Methodology**

PTE of VOC (lbs/hr) = Usage rate (gal/hr) \* VOC content (lbs/gal)

PTE of VOC (tpy) = Usage rate (gal/hr) \* VOC content (lbs/gal) \* 8760 (hrs/yr) /2000 (lbs/ton)

**Appendix A: Emissions Calculations  
Degreasing Operations**

**Company Name: Monticello Spring Corp.  
Address: 3137 South Freeman Road, Monticello, IN 47960  
Permit Number: 181-32942-00045  
Plt ID: 181-00045  
Permit Reviewer: Tamera Wessel  
Date: 3/11/2013**

Emission Unit ID#	Material	Maximum Usage Rate (gal/hr)	Weight % VOC	Density (lbs/gal)	PTE of VOC (tons/yr)	HAPs	
						2 - (2-butoxyethoxy) ethanol %	PTE of 2 - (2-butoxyethoxy) ethanol (tons/yr)
9075	n-Propyl Bromide	0.10	100.00%	11.1	4.77	0.00%	0.000
Ultrasonic	Blue Gold	0.02	10.00%	8.93	0.06	9.00%	0.058
Safety Kleen Degreasers (2)	Safety-Kleen Premium Solvent	0.01	100.00%	6.7	0.26	0.00%	0.000
					<b>Total</b>		<b>0.06</b>

55 gal Blue Gold used in 2011  
 330 gal n-propyl bromide used in 2011  
 30 gal Safety-Kleen Premium Solvent used in 2011  
 5049 hrs operated in 2011  
 0.01 Blue Gold Usage rate (gal/hr)  
 0.02 Blue Gold Usage rate (gal/hr) \* 1.5 safety factor for worst-case scenario usage  
 0.07 n-propyl Bromide usage rate (gal/hr)  
 0.10 n-propyl Bromide usage rate (gal/hr) \*1.5 safety factor for worst-case scenario usage  
 0.01 Safety-Kleen Solvent Usage rate (gal/hr)  
 0.01 Safety-Kleen Solvent Usage rate (gal/hr) \* 1.5 safety for worst-case scenario usage

**Notes**

n-Propyl Bromide solvent is used in the conveyORIZED degreaser in a separate room with exhaust to atmosphere through Stack 8. An electric boiler is used to provide steam to heat the NPB solution.

Blue Gold solvent is used in a covered ultrasonic conveyORIZED degreaser with no exhaust for stainless steel injector springs.

Safety-Kleen units (2) are covered tanks used for degreasing/general maintenance purposes. Units are serviced regularly by Safety-Kleen. Assumed worst-case scenario that all solvent added during the course of the year were emitted.

**Methodology**

PTE of VOC (tons/yr) = Maximum Usage Rate (gal/hr) x Density (lbs/gal) x Weight % VOC x 8,760 hrs/yr x 1 ton/2,000 lbs

PTE of HAP (tons/yr) = Maximum Usage Rate (gal/hr) x Density (lbs/gal) x Weight % HAP x 8,760 hrs/yr x 1 ton/2,000 lbs

Blue Gold is used at 5% dilution

**Appendix A: Emissions Calculations**  
**SFM Emission Units ID #7210 & 7211**

**Company Name: Monticello Spring Corp.**  
**Address: 3137 South Freeman Road, Monticello, IN 47960**  
**Permit Number: 181-32942-00045**  
**Plt ID: 181-00045**  
**Permit Reviewer: Tamera Wessel**  
**Date: 3/11/2013**

**VOC and Particulate Emissions**

Material	Substrate	Density (lbs/gal)	Weight % Organics	Maximum Usage (gal/hr)	Pounds VOC per gallon of coating	PTE of VOC (lbs/hr)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE of PM/PM10 (tons/yr)	Transfer Efficiency*
SG-1260	metal	8.1	80.00%	0.0013	6.48	0.00866	0.2079	0.0379	0.00	100.00%
F123	metal	6.76	75.00%	0.0013	5.07	0.00678	0.1627	0.0297	0.00	100.00%
<b>Worst Case PTE</b>								<b>0.0379</b>	<b>0</b>	

**HAP Emissions**

SG-1260	Neither material contains HAPS
F123	

\* The SFMs use air injector pump applicators to apply surface coating materials to springs. The transfer efficiency is expected to be 100%

**Notes**

These are the 2 spring finishing machines (SFM) at the facility which apply small identification lines of paint.

Maximum usage (gal/hr) is based upon purchase records and annual hours of operation for 2011 and multiplying by a safety factor of 1.5

Since purchase records do not track which line uses the purchased paints, the total for both lines is calculated together.

**METHODOLOGY**

Pounds of VOC per Gallon Coating = Density (lbs/gal) \* Weight % Organics

PTE of VOC (lbs/hr) = Pounds of VOC per Gallon coating (lbs/gal) \* Max Usage (gal/hr)

PTE of VOC (lbs/day) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr) \* (24 hr/day)

PTE of VOC (tons/yr) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr) \* (8,760 hr/yr) \* (1 ton/2,000 lbs)

PTE of PM/PM10 before Control (lbs/hr) = Max. Usage (gal/hr) \* Density (lbs/gal) \* (1- Weight % Volatile) \* (1-transfer efficiency)

PTE of HAPS (tons/yr) = Density (lbs/gal) \* Maximum Usage (gal/hr) \* Weight % HAP \* 8,760 hrs/yr \* 1 ton/2,000 lbs

**Appendix A: Emissions Calculations  
Manual Striping in Secondary Processing Area**

**Company Name: Monticello Spring Corp.  
Address: 3137 South Freeman Road, Monticello, IN 47960  
Permit Number: 181-32942-00045  
Plt ID: 181-00045  
Permit Reviewer: Tamera Wessel  
Date: 3/11/2013**

**VOC and Particulate Emissions**

Material	Substrate	Density (lbs/gal)	Weight % Organics	Maximum Usage (gal/hr)	Pounds VOC per gallon of coating	PTE of VOC (lbs/hr)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE of PM/PM10 (tons/yr)	Transfer Efficiency*
Red Staining Color	metal	7.51	87.95%	0.0168	6.61	0.11	2.67	0.49	0.00	100.00%
Thinner S-1462	metal	7.05	100.00%	0.0168	7.05	0.12	2.85	0.52	0.00	100.00%
<b>Worst Case PTE</b>								<b>1.01</b>	<b>0</b>	

**HAP Emissions**

Material	Density (lbs/gal)	Maximum Usage (gal/hr)	Weight % 2-Butoxy Ethanol	Weight % Methanol	Weight % Methyl Isobutyl Ketone	Weight % Toluene	PTE of 2-Butoxy Ethanol (tons/yr)	PTE of Methanol (tons/yr)	PTE of Methyl Isobutyl Ketone (tons/yr)	PTE of Toluene (tons/yr)	Total PTE of HAPs (tons/yr)
Thinner S-1462	7.05	0.0168	8.33%	8.33%	25.00%	58.30%	0.04	0.04	0.13	0.30	<b>0.52</b>

\*Transfer efficiency is expected to be 100% since the coating is applied by manually dipping the spring into the coating.

**Notes**

Maximum usage (gal/hr) is based upon purchase records and annual hours of operation for 2011 and multiplying by a safety factor of 1.5  
 Since the tumble painter also uses the same paints and the manual striping process is rarely used, it is assumed that in the worst-case scenario 10% of all colors of this type of paint purchased is used by the manual process. This total usage for all paints is then assigned to the worst-case scenario red paint color.  
 This is a new process on the compression spring side of the operations. The spring is manually dipped into a small container of coating and then placed upon a wooden wheel and spun to dry. A wheel has a hood that exhausts outside the facility.

**METHODOLOGY**

Pounds of VOC per Gallon Coating - Density (lbs/gal) \* Weight % Organics  
 PTE of VOC (lbs/hr) = Pounds of VOC per Gallon coating (lbs/gal) \* Max Usage (gal/hr)  
 PTE of VOC (lbs/day) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr) \* (24 hr/day)  
 PTE of VOC (tons/yr) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr) \* (8,760 hr/yr) \* (1 ton/2,000 lbs)  
 PTE of PM/PM10 before Control (lbs/hr) = Max. Usage (gal/hr) \* Density (lbs/gal) \* (1- Weight % Volatile) \* (1-transfer efficiency)  
 PTE of HAPS (tons/yr) = Density (lbs/gal) \* Maximum Usage (gal/hr) \* Weight % HAP \* 8,760 hrs/yr \* 1 ton/2,000 lbs

**Appendix A: Emissions Calculations  
Tumble Painter (Emission Unit ID #9130)**

**Company Name: Monticello Spring Corp.**  
**Address: 3137 South Freeman Road, Monticello, IN 47960**  
**Permit Number: 181-32942-00045**  
**Plt ID: 181-00045**  
**Permit Reviewer: Tamera Wessel**  
**Date: 3/11/2013**

**VOC and Particulate Emissions**

Material	Substrate	Density (lbs/gal)	Weight % Organics	Maximum Usage (gal/hr)	Pounds VOC per gallon of coating	PTE of VOC (lbs/hr)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE of PM/PM10 before Control (tons/yr)	Transfer Efficiency*
Red Staining Color	metal	7.51	87.95%	0.3	6.61	1.98	47.56	8.68	0.20	25.0%
Thinner S-1462	metal	7.05	100.00%	0.3	7.05	2.12	50.76	9.26	0.00	25.0%
<b>Worst Case Total</b>								<b>17.94</b>	<b>0.20</b>	

**HAP Emissions**

Material	Density (lbs/gal)	Maximum Usage (gal/hr)	Weight % 2-Butoxy Ethanol	Weight % Methanol	Weight % Methyl Isobutyl Ketone	Weight % Toluene	PTE of 2-Butoxy Ethanol (tons/yr)	PTE of Methanol (tons/yr)	PTE of Methyl Isobutyl Ketone (tons/yr)	PTE of Toluene (tons/yr)	Total PTE of HAPs (tons/yr)
Thinner S-1462	7.05	0.3	8.33%	8.33%	25.00%	58.30%	0.77	0.77	2.32	5.40	<b>9.26</b>

\*Transfer efficiency based upon air atomized spray gun used by tumble painter and AP-42 Tables 4.2.2.12-1 and 4.2.2.14-1.

**NOTES**

Usage rates based upon purchase records, waste disposal records, and number of parts painted in 2002. The usage in 2002 was much higher than in 2011 or 2012.

Worst-case scenario paint & thinner combination used for calculations.

Paint and thinner mixed at 1:1 ratio.

A spray gun is attached to the tumbler and sprays coatings into the center of the tumbler. Paint chips are collected in a container for overspray PM control. No dry filters are used.

**METHODOLOGY**

Pounds of VOC per Gallon Coating = Density (lbs/gal) \* Weight % Organics

PTE of VOC (lbs/hr) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr)

PTE of VOC (lbs/day) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr) \* (24 hr/day)

PTE of VOC (tons/yr) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr) \* (8,760 hr/yr) \* (1 ton/2,000 lbs)

PTE of PM/PM10 before Control (lbs/hr) = Max. Usage (gal/hr) \* Density (lbs/gal) \* (1- Weight % Volatile) \* (1- Transfer efficiency)

PTE of HAPS (tons/yr) = Density (lb/gal) \* Max. Usage (gal/hr) \* Weight % HAP \* (8,760 hrs/yr) \* (1 ton/2,000 lbs)

**Appendix A: Emissions Calculations  
Abrasive Blasting Operations**

**Company Name: Monticello Spring Corp.  
Address: 3137 South Freeman Road, Monticello, IN 47960  
Permit Number: 181-32942-00045  
Plt ID: 181-00045  
Permit Reviewer: Tamera Wessel  
Date: 3/11/2013**

Unit ID	Description	Max Abrasive Input Rate (lbs/yr)	Type Abrasive Used	PM Emission Factor (lbs/lbs)	PTE of PM before Control (lbs/yr)	PTE of PM before Control (tons/yr)	PM10 Emission Factor (lbs PM10/lbs PM)	PTE of PM10 before Control (lbs/yr)	PTE of PM10 before Control (tons/yr)	Control Device	Control Efficiency	PTE of PM after Control (lbs/yr)	PTE of PM after Control (tons/yr)	PTE of PM10 after Control (lbs/yr)	PTE of PM10 after Control (tons/yr)
9128	PNEU-Blast 4836-SA	10,895	steel shot	0.004	43.58	0.02	0.86	37.48	0.02	baghouse	99%	0.44	0.000	0.37	0.000
9133	Wheelabrator TBR-6	66,453	steel shot	0.004	265.81	0.13	0.86	228.60	0.11	baghouse	99%	2.66	0.001	2.29	0.001
9191	Wheelabrator TB-85	66,453	steel shot	0.004	265.81	0.13	0.86	228.60	0.11	baghouse	99%	2.66	0.001	2.29	0.001
9240	Wheelabrator WTB-6.0	66,453	steel shot	0.004	265.81	0.13	0.86	228.60	0.11	baghouse	99%	2.66	0.001	2.29	0.001
9832	MSC 9832 Viking	177,207	steel shot	0.004	708.83	0.35	0.86	609.59	0.30	baghouse	99%	7.09	0.004	6.10	0.003
9210a	MSC 9210a Empire Blaster	52,050	glass bead	0.01	520.50	0.26	1	520.50	0.26	baghouse	99%	5.20	0.003	5.20	0.003
9210b	MSC 9210b Empire Blaster	52,050	glass bead	0.01	520.50	0.26	1	520.50	0.26	baghouse	99%	5.20	0.003	5.20	0.003
104951				<b>Total PM Uncontrolled</b>	<b>1.30</b>	<b>Total PM10 Uncontrolled</b>	<b>1.19</b>	<b>Total Controlled</b>	<b>25.91</b>	<b>0.01</b>	<b>23.74</b>	<b>0.01</b>			

\*PM emission factors for abrasive blasting were taken from Section 3 of STAPPA/ALAPCO "Confined Abrasive Blasting Cabinets/Rooms" document

**Notes**

- 223320 lbs shot blast purchased in 2012
- 60000 lbs glass bead purchased in 2012
- 5049 hours operated in 2012
- 387460 lbs steel shot purchased in 2012 extrapolated out to represent 8,760 hours of operation
- 104100 lbs glass bead purchased in 2012 extrapolated out to represent 8,760 hours of operation

Maximum abrasive input for each machine is based upon apportioning the total lbs/hr of blast material used based upon the maximum capacity of the machines, as determined by manufacturer specifications.

**Methodology**

- PTE of PM before Control (lbs/hr) = Max. Abrasive Usage (lbs/hr) \* PM Emission Factor (lbs/lbs)
- PTE of PM before Control (tons/yr) = Max. Abrasive Usage (lbs/hr) \* PM Emission Factor (lbs/lbs) \* 8,760 hr/yr \* 1 ton/2,000 lbs
- PTE of PM10 before Control = PTE of PM \* PM10 Emission Factor (lbs/lbs)
- PTE of PM/PM10 after Control = PTE of PM/PM10 before Control \* (1- Control Efficiency)

**Appendix A: Emissions Calculations  
Paint Booth Emissions (PB-1)**

**Company Name: Monticello Spring Corp.  
Address: 3137 South Freeman Road, Monticello, IN 47960  
Permit Number: 181-32942-00045  
Plt ID: 181-00045  
Permit Reviewer: Tamera Wessel  
Date: 3/11/2013**

**VOC and Particulate Emissions**

Material	Substrate	Density (lbs/gal)	Weight % Organics	Number of spray guns	Maximum Spray Rate (gal/hr)	Pounds VOC per gallon of coating	PTE of VOC (lbs/hr)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE of PM/PM10 (tons/yr)	Transfer Efficiency*
Nason Ful-Thane 2k	metal	7.65	58.30%	1	2	5.0	10	240.00	43.80	3.83	40.00%
									<b>Worst Case PTE</b>	<b>43.80</b>	<b>3.83</b>
									<b>Control Efficiency**</b>	-	90%
									<b>Controlled Emissions</b>	<b>43.80</b>	<b>0.38</b>

**HAP Emissions**

Material	Density (lbs/gal)	Maximum Spray Rate (gal/hr)				
Nason Ful-Thane 2k	7.65	2	The paint does not contain any HAPs			
					Total (tons/yr)	0.00

**Cleanup Emissions**

Material	Density (lbs/gal)	Maximum Usage (gal/hr)	Weight % Ethylbenzene	Weight % N-hexane	Weight % Xylene	Weight % Toluene	PTE of Ethylbenzene (tons/yr)	PTE of N-hexane (tons/yr)	PTE of Xylene (tons/yr)	PTE of Toluene (tons/yr)	Total PTE of HAPs (tons/yr)	Total PTE of VOC (tons/yr)
Nason 441-21 Reducer	6.71	0.25	1.00%	1.00%	4.00%	16.00%	0.07	0.07	0.29	1.18	<b>1.62</b>	<b>0.00</b>

**Notes**

This is a new emission unit. The booth is primarily used to paint equipment built by the facility. The booth is equipped with dry filters for overspray PM control and exhausts to atmosphere. Nason Ful-Thane 2k is the only coating being used in the booth. The Nason 441-21 Reducer is the only solvent used in the booth. Pounds of VOC per gallon is the maximum as listed on the MSDS sheet.

**METHODOLOGY**

Pounds of VOC per Gallon Coating - Density (lbs/gal) \* Weight % Organics  
PTE of VOC (lbs/hr) = Pounds of VOC per Gallon coating (lbs/gal) \* Max Usage (gal/hr)  
PTE of VOC (lbs/day) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr) \* (24 hr/day)  
PTE of VOC (tons/yr) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr) \* (8,760 hr/yr) \* (1 ton/2,000 lbs)  
PTE of PM/PM10 before Control (lbs/hr) = Max. Usage (gal/hr) \* Density (lbs/gal) \* (1- Weight % Volatile) \* (1-transfer efficiency)  
PTE of HAPS (tons/yr) = Density (lbs/gal) \* Maximum Usage (gal/hr) \* Weight % HAP \* 8,760 hrs/yr \* 1 ton/2,000 lbs  
7.48 gal in 1 cubic foot

\*Transfer efficiency was estimated per AP-42 Automobile and Light Duty Truck Surface Coating Operations 4.2.2.8-3 page 4

\*\*Emissions are controlled using dry filters.

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

**Company Name:** Monticello Spring Corp.  
**Address City IN Zip:** 3137 South Freeman Road, Monticello, IN 47960  
**Permit Number:** 181-32942-00045  
**Plt ID:** 181-00045  
**Reviewer:** Tamera Wessel  
**Date:** 3/11/2013

Emission Unit Description	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	HHV
			mmBtu mmscf
Front Office Heater #1	0.120	1.031	1020
Front Office Heater #2	0.120	1.031	
Front Office Heater #3	0.060	0.515	
Maintenance Heater #1	0.125	1.074	
Maintenance Heater #2	0.125	1.074	
Maintenance Heater #3	0.125	1.074	
Training Room Heater	0.120	1.031	
Break Room Heater	0.120	1.031	
AMU in Shipping Department	3.300	28.341	
AMU in Compression Bldg.	3.300	28.341	
AMU in Tension Bldg.	3.300	28.341	
	10.815	92.882	

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.09	0.35	0.35	0.03	4.64	0.26	3.90

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

PM2.5 emission factor is filterable and condensable PM2.5 combined.

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

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

**HAPS Calculations**

Emission Factor in lb/MMcf	HAPs - Organics					Total - Organics
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	9.75E-05	5.57E-05	3.48E-03	0.08	1.58E-04	<b>0.087</b>

Emission Factor in lb/MMcf	HAPs - Metals					Total - Metals
	Lead	Cadmium	Chromium	Manganese	Nickel	
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	2.32E-05	5.11E-05	6.50E-05	1.76E-05	9.75E-05	<b>2.545E-04</b>

Methodology is the same as above.

<b>Total HAPs</b>	<b>0.09</b>
<b>Worst HAP</b>	<b>0.08</b> Hexane

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Greenhouse Gas Calculations**

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2	CH4	N2O
	120,000	2.3	2.2
Potential Emission in tons/yr	5,573	0.1	0.1
Summed Potential Emissions in tons/yr	5,573		
CO2e Total in tons/yr	5,607		

**Methodology**

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.

Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

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

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

**Appendix A: Emissions Calculations  
Welding Operations**

**Company Name: Monticello Spring Corp.  
Address: 3137 South Freeman Road, Monticello, IN 47960  
Permit Number: 181-32942-00045  
Plt ID: 181-00045  
Permit Reviewer: Tamera Wessel  
Date: 3/11/2013**

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS (lb pollutant/lb electrode)				Potential to Emit (tons/year)			
				PM=PM10=PM2.5	Mn	Ni	Cr	PM/PM10/PM2.5	Mn	Ni	Cr
WELDING											
Metal Inert Gas (MIG)(carbon steel) - Maintenance	3	0.04		0.0241	0.000034	NA	0.00001	0.013	0.00002	0	0.00001
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 (tons/year)			
				PM=PM10=PM2.5	Mn	Ni	Cr	PM/PM10/PM2.5	Mn	Ni	Cr
Oxyacetylene Torch	2	8.0	5.0	0.1622	0.0005	0.0001	0.0003	3.410	0.011	0.002	0.001
<b>Totals</b>								<b>3.42</b>	<b>0.011</b>	<b>0.002</b>	<b>0.001</b>

**Notes:**

MIG welding emission factors are from AP 42, Chapter 12-19, Tables 12-19.1 and 12-19.2 (SCC 3-09-052-26) January 1995.

**Methodology:**

PTE (tons/year) = Number of Stations x Electrode Consumption (lbs/hour) x Emission Factor (lbs /lb electrode) x 8760 (hours/year) x 1 ton/2,000 lbs

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.

**Company Name: Monticello Spring Corp.**  
**Address: 3137 South Freeman Road, Monticello, IN 47960**  
**MSOP: 181-32942-00045**  
**Plt ID: 181-00045**  
**Permit Reviewer: Tamera Wessel**  
**Date: 3/11/2013**

**VCI Drum Spraying**

**VOC and Particulate Emissions**

Material	Substrate	Density (lbs/gal)	Weight % Organics	Maximum Usage (gal/hr)	Pounds VOC per gallon of coating	PTE of VOC (lbs/hr)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE of PM/PM10 (tons/yr)	Transfer Efficiency*
VCI-338	metal	8.4	91.00%	0.0017	7.64	0.01	0.32	0.06	0.00	100.00%
<b>Worst Case PTE</b>								<b>0.06</b>	<b>0</b>	

**HAP Emissions**

VCI-338	Material does not contain HAPS
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\* The spraying application takes place inside the drum to be coated so the transfer efficiency is expected to be 100%

**Notes**

Maximum usage is based upon purchase records for 2011 and 2012 and extrapolating the annual usage rates to 8,760 hours of operation.

A spray gun is inserted into the drum for spraying rust inhibitor and the lid is lowered as much as possible during the spraying to help retain the rust inhibitor.

**METHODOLOGY**

Pounds of VOC per Gallon Coating - Density (lbs/gal) \* Weight % Organics

PTE of VOC (lbs/hr) = Pounds of VOC per Gallon coating (lbs/gal) \* Max Usage (gal/hr)

PTE of VOC (lbs/day) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr) \* (24 hr/day)

PTE of VOC (tons/yr) = Pounds of VOC per Gallon coating (lbs/gal) \* Max. Usage (gal/hr) \* (8,760 hr/yr) \* (1 ton/2,000 lbs)

PTE of PM/PM10 (tons/yr) = Max. Usage (gal/hr) \* Density (lbs/gal) \* (1- Weight % Volatile) \* (1-transfer efficiency)\*8760 (hrs/yr) /2000 (tons/lb)

**Appendix A: Emission Calculations  
Fugitive Dust Emissions - Paved Roads**

**Company Name: Monticello Springs  
Source Address: 3137 S. Freeman Road, Monticello, IN  
Permit Number: 181-32942-00045  
Reviewer: Tamera Wessel  
Date: 3/11/2013**

**Paved Roads at Industrial Site**

The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Information (provided by source)

Type	Maximum number of vehicles per day*	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)**	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)***	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Employee Vehicle (entering plant) (one-way trip)	80.0	1.5	120.0	2.2	259.3	450	0.085	10.2	3733.0
Employee Vehicle (leaving plant) (one-way trip)	80.0	1.5	120.0	2.2	264.0	450	0.085	10.2	3733.0
Truck (entering plant) (one-way trip)	3.0	1.0	3.0	30.0	90.0	400	0.076	0.2	83.0
Truck (leaving plant) (one-way trip)	3.0	1.0	3.0	30.0	90.0	400	0.076	0.2	83.0
<b>Totals</b>			<b>246.0</b>		<b>703.3</b>			<b>20.9</b>	<b>7631.8</b>

Average Vehicle Weight Per Trip =  $\frac{2.9}{0.08}$  tons/trip      \* Based upon number of current employees plus 10%. Assumed 1.5 trips in and out (1/2 for lunch due to carpool)  
 Average Miles Per Trip =  $\frac{0.08}{0.08}$  miles/trip      \*\* Based upon average weight of car/light duty truck of 4021 lbs per New York Times May 5, 2004 plus 1 individual at 300 lbs  
 Unmitigated Emission Factor, Ef =  $[k * (sL)^{0.91} * (W)^{1.02}]$  (Equation 1 from AP-42 13.2.1)      \*\*\* Obtained from google earth measurements

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	2.9	2.9	2.9	tons = average vehicle weight (provided by source)
sL =	9.7	9.7	9.7	g/m <sup>2</sup> = silt loading value for paved roads at iron and steel production facilities - Table 13.2.1-3)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext =  $E * [1 - (p/4N)]$  (Equation 2 from AP-42 13.2.1)

Mitigated Emission Factor, Eext =  $Ef * [1 - (p/4N)]$   
 where p =  $\frac{125}{365}$  days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)  
 N = 365 days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.254	0.051	0.0125	lb/mile
Mitigated Emission Factor, Eext =	0.232	0.046	0.0114	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Employee Vehicle (entering plant) (one-way trip)	0.47	0.09	0.02	0.43	0.09	0.02
Employee Vehicle (leaving plant) (one-way trip)	0.47	0.09	0.02	0.43	0.09	0.02
Truck (entering plant) (one-way trip)	0.01	0.00	0.00	0.01	0.00	0.00
Truck (leaving plant) (one-way trip)	0.01	0.00	0.00	0.01	0.00	0.00
<b>Totals</b>	<b>0.97</b>	<b>0.19</b>	<b>0.05</b>	<b>0.89</b>	<b>0.18</b>	<b>0.04</b>

**Methodology**

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] \* [Maximum trips per day (trip/day)]  
 Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]  
 Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] \* [Maximum one-way distance (mi/trip)]  
 Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]  
 Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]  
 Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] \* [Unmitigated Emission Factor (lb/mile)] \* (ton/2000 lbs)  
 Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] \* [Mitigated Emission Factor (lb/mile)] \* (ton/2000 lbs)

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 PM2.5 = Particle Matter (<2.5 um)  
 PTE = Potential to Emit

**Appendix A: Emission Calculations  
Fugitive Dust Emissions - Unpaved Roads**

**Company Name: Monticello Springs**  
**Address City IN Zip: 3137 S. Freeman, Monticello, IN**  
**Permit Number: 181-32942-00045**  
**Plt ID: 181-00045**  
**Reviewer: Tamera Wessel**  
**Date: 3/11/2013**

**Unpaved Roads at Industrial Site**

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (11/2006).

Vehicle Information (provided by source)

Type	Maximum number of vehicles	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Vehicle (entering plant) (one-way trip)	80.0	1.5	120.0	2.2	264.0	200	0.038	4.5	1659.1
Vehicle (leaving plant) (one-way trip)	80.0	1.5	120.0	2.2	264.0	200	0.038	4.5	1659.1
<b>Totals</b>			<b>240.0</b>		<b>528.0</b>			<b>9.1</b>	<b>3318.2</b>

Average Vehicle Weight Per Trip =  tons/trip  
 Average Miles Per Trip =  miles/trip

Unmitigated Emission Factor, Ef =  $k \cdot [(s/12)^a] \cdot [(W/3)^b]$  (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-1 Sand/Gravel Processing Plant)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)
W =	2.2	2.2	2.2	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext =  $E \cdot [(365 - P)/365]$  (Equation 2 from AP-42 13.2.2)

Mitigated Emission Factor, Eext =  $E \cdot [(365 - P)/365]$   
 where P =  days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	2.24	0.57	0.06	lb/mile
Mitigated Emission Factor, Eext =	1.48	0.38	0.04	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Vehicle (entering plant) (one-way trip)	1.86	0.47	0.05	1.22	0.31	0.03
Vehicle (leaving plant) (one-way trip)	1.86	0.47	0.05	1.22	0.31	0.03
<b>Totals</b>	<b>3.72</b>	<b>0.95</b>	<b>0.09</b>	<b>2.45</b>	<b>0.62</b>	<b>0.06</b>

**Methodology**

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] \* [Maximum trips per day (trip/day)]  
 Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]  
 Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] \* [Maximum one-way distance (mi/trip)]  
 Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]  
 Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]  
 Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) \* (Unmitigated Emission Factor (lb/mile)) \* (ton/2000 lbs)  
 Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) \* (Mitigated Emission Factor (lb/mile)) \* (ton/2000 lbs)

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 PM2.5 = Particulate Matter (<2.5 um)  
 PTE = Potential to Emit

Company Name: Monticello Spring Corp.

Address: 3137 South Freeman Road, Monticello, IN 47960

Permit Number: 181-32942-00045

Plt ID: 181-00045

Permit Reviewer: Tamera Wessel

Date: 3/11/2013

**Facility-Wide Emissions Summary  
Unlimited Potential to Emit (tons/yr)**

Emission Unit	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs	Single HAP	Total HAPs
Grinding Operation	31.55	31.55	31.55							
Degreasing						5.09			0.06 2-(2-butoxyethoxy) ethanol	0.06
Roper Rust Preventive						0.17				
SFM (Spring Finishing Machine)	0.00	0.00	0.00			0.04				0.00
Manual Striping						1.01			0.30 Toluene	0.52
Tumble Painter	0.20	0.20	0.20			17.94			5.40 Toluene	9.26
Abrasive Blasting	1.30	1.19	1.19							
Paint Booth	3.83	3.83	3.83			43.80			1.18 Toluene	1.62
Welding	3.42	3.42	3.42						0.01 Manganese	0.01
Combustion Units	0.09	0.35	0.35	0.03	4.64	0.26	3.90	5,607	0.08 Hexane	0.09
VCI Drum Spraying						0.06				
Oiling Dipping Operations						0.88				
Fugitive Emissions	3.33	0.80	0.11							
<b>Total</b>	<b>43.72</b>	<b>41.34</b>	<b>40.64</b>	<b>0.03</b>	<b>4.64</b>	<b>69.24</b>	<b>3.90</b>	<b>5,607</b>	<b>6.88</b> Toluene	<b>11.56</b>



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

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**Michael R. Pence**  
*Governor*

**Thomas W. Easterly**  
*Commissioner*

## **SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED**

TO: Monticello Spring Corporation

DATE: November 12, 2013

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

SUBJECT: Final Decision  
MSOP  
181-32942-00045

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:  
Thomas Pimmler, Responsible Official  
Andrea Swanson, Cornerstone Environmental  
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at [jbrush@idem.IN.gov](mailto:jbrush@idem.IN.gov).

Final Applicant Cover letter.dot 6/13/2013



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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**Michael R. Pence**  
*Governor*

**Thomas W. Easterly**  
*Commissioner*

November 12, 2013

TO: Monon Town and Township Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

**Applicant Name: Monticello Spring Corporation**  
**Permit Number: 181-32942-00045**

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures  
Final Library.dot 6/13/2013

# Mail Code 61-53

IDEM Staff	DPABST 11/12/2013 Monticello Spring Corporation 181- 32942-00045 (final)		Type of Mail:  <b>CERTIFICATE OF MAILING ONLY</b>	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Matthew Wescott Monticello Spring Corporation 3137 S Freeman Rd Monticello IN 47960 (Source CAATS) (CONFIRM DELIVERY)										
2		Thomas Pimmler President/CEO Monticello Spring Corporation 3137 S Freeman Rd Monticello IN 47960 (RO CAATS)										
3		Mr. Harry D. DuVall P.O. Box 147 Idaville IN 47950 (Affected Party)										
4		Monon Town and Township Public Library 427 N. Market St Monon IN 47959 (Library)										
5		Monticello City Council and Mayors Office 227 N. Main Street Monticello IN 47960 (Local Official)										
6		White County Commissioners P.O. Box 260 Monticello IN 47960-0260 (Local Official)										
7		Ms. Magje Read P.O. Box 248 Battle Ground IN 47920 (Affected Party)										
8		Mr. Robert Kelley 2555 S 30th Street Lafayette IN 44909 (Affected Party)										
9		White County Health Department 315 N Illinois St Monticello IN 47960 (Health Department)										
10		Ms. Andrea Swanson Cornerstone Environmental 880 Lennox Ct Zionsville IN 46077 (Consultant)										
11												
12												
13												
14												
15												

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