



Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

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

TO: Interested Parties / Applicant  
DATE: September 21, 2007  
RE: D&S Industries, Inc. / 039-24546-00667  
FROM: Nisha Sizemore  
Chief, Permits Branch  
Office of Air Quality

### Notice of Decision: Approval - Effective Immediately

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

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures  
FNPER.dot 03/23/06



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100 North Senate Avenue  
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## NEW SOURCE CONSTRUCTION AND MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY

**D&S Industries, Inc.  
207 East Joseph St.  
Bristol, Indiana 46507**

(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 2-5.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

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

Operation Permit No.: MSOP 039-24546-00667	
Issued by:  <i>Original signed by</i> Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: September 21, 2007  Expiration Date: September 21, 2012

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## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

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

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The Permittee owns and operates a stationary metal parts coating plant.

Source Address:	207 East Joseph Street, Bristol, IN 46507
Mailing Address:	207 East Joseph Street, Bristol, IN 46507
General Source Phone Number:	(574) 848-1445
SIC Code:	3499
County Location:	Elkhart
Source Location Status:	Nonattainment for 8-hour ozone standard Attainment for all other 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) Four (4) high volume low pressure (HVLP) surface coating booths; identified as SB-1, SB-2, SB-3, and SB-4, respectively; constructed in 2006; applying coatings to screws with a maximum combined production rate of 125,000 screws per hour; with particulate emissions from each booth controlled by a dry filter system. Emissions from SB-1 and SB-2 exhaust through stack SBV-1. Emissions from SB-3 and SB-4 exhaust through stack SBV-2.
- (b) One (1) high volume low pressure (HVLP) surface coating booth; identified as SB-5 (previously identified as SV-7); constructed in 2006; applying coatings to miscellaneous metal parts; with particulate emissions controlled by a dry filter system; and emissions exhausting through stack SBV-3 (previously identified as SV-7).
- (c) One (1) powder coating line; identified as PCL1; constructed in 2006; with a maximum powder coating capacity of 3.75 lb/hr; applying coatings to metal parts using an electrostatic air atomization spray application system. Particulate emissions (waste powder) are collected for reuse by an integral cartridge filter powder recovery system that exhausts indoors.
- (d) One (1) powder coating line; identified as PCL2; to be constructed in 2007; with a maximum powder coating capacity of 14.98 lb/hr; applying coatings to metal parts using an electrostatic air atomization spray application system. Particulate emissions (waste powder) are collected for reuse by an integral cartridge filter powder recovery system that exhausts indoors.
- (e) One (1) powder coating line; identified as PCL3; constructed in 2007; with a maximum powder coating capacity 19.84 lb/hr; applying coatings to metal parts using an electrostatic air atomization spray application system. Particulate emissions (waste powder) are collected for reuse by an integral cartridge filter powder recovery system that exhausts indoors.
- (f) One (1) 0.35 MMBtu/hr natural gas-fired burn-off oven.

- (g) Various natural gas-fired drying/curing ovens, aqueous iron phosphate wash tank heating units, and heaters with a total heat input capacity of less than 10 MMBtu/hr.
- (h) Manual clean-up operations of the surface coating booths.
- (i) Paved and unpaved roads and parking lots with public access.

## 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 Revocation of Permits [326 IAC 2-1.1-9(5)]

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

### B.3 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, MSOP 039-24546-00667, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

### B.4 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.5 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.6 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.7 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.8 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. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

**B.9 Certification**

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- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1)

**B.10 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:  
  
Compliance Branch, Office of Air Quality  
Indiana Department of Environmental Management  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, IN 46204-2251
- (c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

**B.11 Preventive Maintenance Plan [326 IAC 1-6-3]**

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

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

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

**B.12 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

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- (a) All terms and conditions of permits established prior to MSOP 039-24546-00667 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.13 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 ninety (90) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

**B.14 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 the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
  - (1) Submitted at least ninety (90) days prior to the date of the expiration of this permit; and
  - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the

deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

**B.15 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  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

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

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

**B.16 Source Modification Requirement**

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

**B.17 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.18 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  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

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

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

B.19 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.
- (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.20 Credible Evidence [326 IAC 1-1-6]

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

**SECTION C**

**SOURCE OPERATION CONDITIONS**

**Entire Source**

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

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

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

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

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

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

**C.3 Opacity [326 IAC 5-1]**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

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

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

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

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

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

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

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

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

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

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-52 IGCN 1003  
Indianapolis, Indiana 46204-2251

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

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**

The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited 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) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

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

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

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

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

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

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

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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 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

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

## Corrective Actions and Response Steps

### C.12 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 take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

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

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

### C.13 Malfunctions Report [326 IAC 1-6-2]

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

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

### C.14 General Record Keeping Requirements [326 IAC 2-6.1-5]

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- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.15 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) Reports required by conditions in Section D of this permit shall be submitted to:
- Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

## SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description: Surface Coating

- (a) Four (4) high volume low pressure (HVLP) surface coating booths; identified as SB-1, SB-2, SB-3, and SB-4, respectively; constructed in 2006; applying coatings to screws with a maximum combined production rate of 125,000 screws per hour; with particulate emissions from each booth controlled by a dry filter system. Emissions from SB-1 and SB-2 exhaust through stack SBV-1. Emissions from SB-3 and SB-4 exhaust through stack SBV-2.
- (b) One (1) high volume low pressure (HVLP) surface coating booth; identified as SB-5 (previously identified as SV-7); constructed in 2006; applying coatings to miscellaneous metal parts; with particulate emissions controlled by a dry filter system; and emissions exhausting through stack SBV-3 (previously identified as SV-7).
- (c) One (1) powder coating line; identified as PCL1; constructed in 2006; with a maximum powder coating capacity of 3.75 lb/hr; applying coatings to metal parts using an electrostatic air atomization spray application system. Particulate emissions (waste powder) are collected for reuse by an integral cartridge filter powder recovery system that exhausts indoors.
- (d) One (1) powder coating line; identified as PCL2; to be constructed in 2007; with a maximum powder coating capacity of 14.98 lb/hr; applying coatings to metal parts using an electrostatic air atomization spray application system. Particulate emissions (waste powder) are collected for reuse by an integral cartridge filter powder recovery system that exhausts indoors.
- (e) One (1) powder coating line; identified as PCL3; constructed in 2007; with a maximum powder coating capacity 19.84 lb/hr; applying coatings to metal parts using an electrostatic air atomization spray application system. Particulate emissions (waste powder) are collected for reuse by an integral cartridge filter powder recovery system that exhausts indoors.

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

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

- (a) The volatile organic compound (VOC) content of each coating delivered to the applicators of booths SB-1 through SB-5 shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings.
- (b) Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

#### D.1.2 Particulate [326 IAC 6-3-2(d)]

- (a) Pursuant to 326 IAC 6-3-2(d), particulate from the surface coating operations (SB1 through SB-5) shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.
- (b) If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:
  - (1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

- (2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
- (c) If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

**D.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for booths SB-1 through SB-5 and the respective control devices.

**Compliance Determination Requirements**

**D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-4] [326 IAC 8-1-2(a)]**

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Compliance with the VOC content limitations contained in Condition D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. 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 2-6.1-5(a)(2)]**

**D.1.5 Record Keeping Requirements**

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- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records of the amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents. These records shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC emission limits established in Condition D.1.1. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

**OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH**

**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>	D&S Industries, Inc.
<b>Address:</b>	207 East Joseph Street
<b>City:</b>	Bristol, Indiana 46507
<b>Phone #:</b>	(574) 848-1445
<b>MSOP #:</b>	039-24546-00667

I hereby certify that D&S Industries, Inc. is :

still in operation.

no longer in operation.

I hereby certify that D&S Industries, Inc. is :

in compliance with the requirements of  
MSOP 039-24546-00667.

not in compliance with the requirements of  
MSOP 039-24546-00667.

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

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

<b>Noncompliance:</b>

### MALFUNCTION REPORT

#### INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY FAX NUMBER - 317 233-6865

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

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

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

## Technical Support Document (TSD) for a New Source Construction and Minor Source Operating Permit

### Source Background and Description

Source Name:	D&S Industries, Inc.
Source Location:	207 East Joseph St., Bristol, IN 46507
County:	Elkhart
SIC Code:	3499
Operation Permit No.:	M039-24546-00667
Permit Reviewer:	ERG/BS

The Office of Air Quality (OAQ) has reviewed an application from D&S Industries, Inc. relating to the operation of a stationary metal parts coating plant.

### New Emission Units and Pollution Control Equipment

The application includes information relating to the construction and operation of the following:

- (a) One (1) powder coating line; identified as PCL2; to be constructed in 2007; with a maximum powder coating capacity of 14.98 lb/hr; applying coatings to metal parts using an electrostatic air atomization spray application system. Particulate emissions (waste powder) are collected for reuse by an integral cartridge filter powder recovery system that exhausts indoors.

### Unpermitted Emission Units and Pollution Control Equipment Receiving New Source Review

The source consists of the following unpermitted emission units and pollution control devices receiving New Source Review:

- (a) Four (4) high volume low pressure (HVLP) surface coating booths; identified as SB-1, SB-2, SB-3, and SB-4, respectively; constructed in 2006; applying coatings to screws with a maximum combined production rate of 125,000 screws per hour; with particulate emissions from each booth controlled by a dry filter system. Emissions from SB-1 and SB-2 exhaust through stack SBV-1. Emissions from SB-3 and SB-4 exhaust through stack SBV-2.
- (b) One (1) high volume low pressure (HVLP) surface coating booth; identified as SB-5 (previously identified as SV-7); constructed in 2006; applying coatings to miscellaneous metal parts; with particulate emissions controlled by a dry filter system; and emissions exhausting through stack SBV-3 (previously identified as SV-7).
- (c) One (1) powder coating line; identified as PCL1; constructed in 2006; with a maximum powder coating capacity of 3.75 lb/hr; applying coatings to metal parts using an electrostatic air atomization spray application system. Particulate emissions (waste powder) are collected for reuse by an integral cartridge filter powder recovery system that exhausts indoors.

- (d) One (1) powder coating line; identified as PCL3; constructed in 2007; with a maximum powder coating capacity 19.84 lb/hr; applying coatings to metal parts using an electrostatic air atomization spray application system. Particulate emissions (waste powder) are collected for reuse by an integral cartridge filter powder recovery system that exhausts indoors.
- (e) One (1) 0.35 MMBtu/hr natural gas-fired burn-off oven.
- (f) Various natural gas-fired drying/curing ovens, aqueous iron phosphate wash tank heating units, and heaters with a total heat input capacity of less than 10 MMBtu/hr.
- (g) Manual clean-up operations of the surface coating booths.
- (h) Paved and unpaved roads and parking lots with public access.

Note: The unpermitted emission units listed above were originally located at 705 Division Street, Bristol IN 46507 and operated by D&S Industries, Inc., under Registration R039-14864-00561, issued December 5, 2001. During 2006, D&S Industries, Inc. relocated these emission units to 207 East Joseph St., Bristol, IN 46507 without obtaining prior approval from IDEM.

### Existing Approvals

There are no existing approvals for this new source located at 207 East Joseph St., Bristol, IN 46507.

### Air Pollution Control Justification as an Integral Part of the Process

D&S Industries submitted the following justification regarding the integral nature of the powder coating recovery system with respect to the powder coating lines:

The powder coating recovery system (consisting of both a primary and secondary filter) is integral to the normal operation of powder coating lines (PCL) 1, 2 and 3, based on the significant economic benefit gained by collecting and re-using the powder coating. Based on a total annualized cost for the recovery system of \$2,610, a powder coating unit cost of \$2.24 per pound, and a powder re-use rate of 19.37 pounds per hour, the number of hours needed each year to recover the annual operational cost is approximately 60 hours.

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

### Enforcement Issue

- (a) IDEM is aware that the source has been operating under a Registration but has a VOC PTE greater than 25 tons per year and should be operating under a MSOP (pursuant to 326 IAC 2-6.1).
- (b) IDEM is also aware that the source did not obtain prior approval to construct and operate at 207 East Joseph St., Bristol, IN 46507.

IDEM is reviewing these matters and will take appropriate action.

### Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
SBV1	Surface Coating	23	1.5	2,300	Ambient
SBV2	Surface Coating	23	1.5	2,300	Ambient
SBV3	Surface Coating	18	1.5	2,300	Ambient
WTV1	Natural gas combustion	23	1	< 100	90
WTV2	Natural gas combustion	23	1.5	< 100	90
BOV1	Natural gas combustion	23	0.5	< 100	90
PLOV2	Natural gas combustion	23	1	< 100	90
PLOV3	Natural gas combustion	23	1	< 100	90
PLDV2	Natural gas combustion	23	1	< 100	77
PLDV3	Natural gas combustion	23	1	< 100	77

### Recommendation

The staff recommends to the Commissioner that the operation described herein 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.

A complete application for the purposes of this review was received on April 2, 2007. Additional information was received on May 18, 2007.

### Emission Calculations

See Appendix A of this document for detailed emission calculations (pages 1 through 7).

### Potential to Emit of the Source Before Controls

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

Pollutant	Potential to Emit (tons/year) *
PM	29.1
PM10	29.1
SO <sub>2</sub>	0.03
VOC	48.4
CO	3.6
NO <sub>x</sub>	4.3
Single HAP (toluene)	8.1
Combination HAPs	0.5

\* This emissions information is based on the calculations included in Appendix A.

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of all criteria pollutants are less than 100 tons per year and the potential to emit of PM, PM10, and VOC are greater than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1 and a MSOP will be issued.

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

### County Attainment Status

The source is located in Elkhart County.

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

**Note:** On October 25, the Indiana Air Pollution Control Board approved a permanent rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

- (a) Elkhart County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. See the *State Rule Applicability - Entire Source* section for more information.
- (b) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset (326 IAC 2-3). See the *State Rule Applicability - Entire Source* section for more information.
- (c) Elkhart 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. See the *State Rule Applicability - Entire Source* section.
- (d) Fugitive Emissions  
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

## Source Status

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

Pollutant	Emissions (tons/year)
PM	29.1
PM10	29.1
SO <sub>2</sub>	0.03
VOC	48.6
CO	3.7
NO <sub>x</sub>	4.4
Single HAP	3.1
Combination HAPs	3.2

This source is not a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater, no nonattainment pollutant is emitted at a rate of 100 tons per year or greater, and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2 and 2-3, the PSD and Emission Offset requirements do not apply.

## Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

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

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

## Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this permit for this source.
- (b) The requirements of the New Source Performance Standard: Large Municipal Waste Combustors (326 IAC 12 and 40 CFR Part 60, Subpart Eb) are not included in this permit. The combustion capacity of the burn-off oven is significantly less than 250 tons per day.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 326 IAC 20, 40 CFR Part 61, and 40 CFR Part 63) included in this permit for this source.
- (d) The requirements of the National Emission Standards for Hazardous Air Pollutants for the Surface Coating of Miscellaneous Metal Parts and Products (326 IAC 20-80 and 40 CFR Part 63, Subpart MMMM) are not included in this permit for the surface coating operations. This source is a minor source of HAP, as defined in 40 CFR 63.2.
- (e) The requirements of the National Emission Standards for Hazardous Air Pollutants for Halogenated Solvent Cleaning (326 IAC 20-6 and 40 CFR Part 63, Subpart T) are not included in this permit for the spray gun clean-up operations. Those operations do not use a solvent containing methylene chloride, perchlorethylene, trichlorethylene, 1,1,1-trichlorethane, carbon tetrachloride, chloroform or any combination of these halogenated

HAP solvents in a total concentration greater than five percent (5%) by weight as a cleaning or drying agent.

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

#### **326 IAC 1-5-3 (Emergency Reduction Plan)**

The source-wide potential to emit of PM, PM10, VOC, CO, NO<sub>x</sub>, and SO<sub>2</sub> is less than 100 tons per year. Therefore, the requirements of 326 IAC 1-5 are not applicable to this source.

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

This source is not in 1 of the 28 source categories and there are no applicable New Source Performance Standards that were in effect on August 7, 1980. Therefore, fugitive emissions are not counted towards applicability of PSD.

The potential to emit of PM, PM10, NO<sub>x</sub>, SO<sub>2</sub>, VOC, and CO from the entire source is less than 250 tons per year. Therefore, the source is a minor source under PSD and is not subject to 326 IAC 2-2.

#### **326 IAC 2-3 (Emission Offset)**

This source is located in Elkhart County. Elkhart County was designated by EPA as a nonattainment area for the 8-hour ozone standard in June 2004. The potential to emit of VOC and NO<sub>x</sub> is less than 100 tons per year. Therefore, this source is a minor source under Emission Offset and is not subject to 326 IAC 2-3.

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

The source has a potential to emit less than ten (10) tons per year of a single hazardous air pollutant (HAP) and less than twenty-five (25) tons per year of a combination of hazardous air pollutants (HAPs). Therefore, the requirements of 326 IAC 2-4.1 do not apply.

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

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

#### **326 IAC 5-1 (Opacity Limitations)**

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)**

The source is subject to 326 IAC 6-4 (Fugitive Dust Emissions) because the source maintains paved roads, unpaved roads and parking lots with public access.

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

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

This source located in Elkhart County which is not specifically listed in 326 IAC 6-5-1(a). The source has not added a facility or operation with the potential to emit fugitive particulate matter that requires a permit as set forth in 326 IAC 2, after December 13, 1985.

Therefore, pursuant to 326 IAC 6-5-1, this source is not subject to the requirements of 326 IAC 6-5.

**State Rule Applicability – Spray Coating Booths**

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

The source applies coatings to metal substrates using HVLP spray application in booths SB-1 through SB-5. Each spray booth applies more than five (5) gallons of coatings per day. Therefore, booths SB-1 through SB-5 are subject to the requirements of 326 IAC 6-3-2.

Pursuant to 326 IAC 6-3-2(d), the particulate emissions from booths SB-1 through SB-5 shall be controlled by a dry particulate filter, waterwash, or an equivalent control device and comply with the following requirements:

- (a) The source 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.

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

Pursuant to 326 IAC 8-1-6, any facility constructed after January 1, 1980 that has a potential to emit greater than or equal to 25 tons of VOC per year that is not regulated by another 326 IAC 8 rule shall reduce VOC emissions using BACT.

Booths SB-1 through SB-5 are subject to the requirements of 326 IAC 8-2-9. Therefore, these units are not subject to the requirements of 326 IAC 8-1-6.

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

Booths SB-1 through SB-5 coat metal parts, were constructed after July 1, 1990, and have actual emissions of greater than fifteen (15) pounds of VOC per day before add-on controls.

Pursuant to 326 IAC 8-2-9, the volatile organic compound (VOC) content of the coating delivered to the applicator at booths SB-1 through SB-5 shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the information provided by the source, booths SB-1 through SB-5 are in compliance with 326 IAC 8-2-9 as indicated in the following table:

Coating	Actual lb VOC per gal less H <sub>2</sub> O *	Limit, lb VOC per gal less H <sub>2</sub> O
SW F63B60 Black	2.75	3.5
SW F63W66 White	2.57	3.5
T-272 Activator	2.24	3.5
I-1967 WB Black HS	0.49	3.5
Rust Scat Semi-Gloss	0.91	3.5
9815-4542 Epoxy	3.29	3.5

\* As applied.

### State Rule Applicability – Powder Coating Lines

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

Pursuant to 326 IAC 6-3-1(b)(14), the powder coating lines PCL1, PCL2 and PCL3 are not subject to the requirements of 326 IAC 6-3-2 because each line has potential particulate emissions less than 0.551 pounds per hour.

326 IAC 8 (Volatile Organic Compounds)

PCL1, PCL2 and PCL3 are not subject to the requirements of any 326 IAC 8 rule because the application of the dry powder coatings does not emit VOC.

### State Rule Applicability – Burn-off Oven

326 IAC 4-2-2 (Incinerators) and 326 IAC 9-1-2 (Carbon Monoxide Emission Limits)

The 0.35 MMBtu/hr burn-off oven is used to heat powder coating over-spray so that the powder can be shaken loose from the conveyor hangers. There is no combustion of paints or coatings in this oven. Therefore, this oven is not defined as an incinerator (pursuant to 326 IAC 1-2-34) and is not subject to 326 IAC 4-2-2 or 326 IAC 9-1-2.

### State Rule Applicability – Clean-up Operations

326 IAC 8-3 (Degreasing)

The requirements of 326 IAC 8-3 are not applicable to the spray gun clean-up operations because these operations are not organic solvent degreasing operations performed in a degreasing facility regulated by this rule. The spray operators manually clean the spray applicators of the booths at the end of each shift using mineral spirits. Cleaning is also performed by pumping solvent through the spray lines and guns, and sprayed into a bucket. The exterior of the gun is cleaned with solvent, scraper, and a brush. Waste solvent is stored in sealed containers.

### State Rule Applicability – Natural Gas Combustion Units (<10 MMBtu/hr)

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

None of the natural gas combustion units are indirect heating units. Therefore, the requirements of 326 IAC 6-2 do not apply to these units.

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

Each natural gas combustion units has potential PM emissions of less than 0.551 pounds per hour. Therefore, the requirements of 326 IAC 6-3-2 do not apply to these units.

## **Compliance Requirements**

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

There are no compliance monitoring requirements applicable to the facilities at this source.

## **Conclusion**

The operation of this stationary metal parts coating plant shall be subject to the conditions of the Minor Source Operating Permit No. 039-24546-00667.

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

**Company Name: D&S Industries, Inc.  
Address City IN Zip: 207 St. Joseph Street, Bristol, Indiana 46507  
Permit: M039-24564-00667  
Reviewer: ERG/BS  
Date: 5/17/2007**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit) *	Maximum (unit/hour)*	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
<b>Booths 1-4</b>																
F63B60 Black	8.1	34.00%	0.0%	34.0%	0.0%	65.60%	1.12500	1.000	2.75	2.75	3.09	74.25	13.55	5.26	4.19	80%
F63W66 White	11.5	22.30%	0.0%	22.3%	0.0%	77.60%	1.12500	1.000	2.57	2.57	2.89	69.39	12.66	8.82	3.31	80%
T-272 Activator	9.0	24.90%	0.0%	24.9%	0.0%	75.00%	0.01600	1.000	2.24	2.24	0.04	0.86	0.16	0.09	2.99	80%
I-1967 WB Black HS	8.8	34.00%	29.0%	5.0%	30.0%	57.00%	1.12500	1.000	0.49	0.49	0.55	13.23	2.41	5.74	0.77	80%
Rust Scat Semi-Gloss	10.4	63.52%	60.5%	3.0%	66.0%	34.00%	1.12500	1.000	0.91	0.91	1.02	24.57	4.48	3.72	0.91	80%
Methyl Ethyl Ketone	6.7	100.00%	0.0%	100.0%	0.0%	0.00%	0.01250	1.000	6.71	6.71	0.08	2.01	0.37	0.00	0.00	100%
Toluene	7.3	100.00%	0.0%	100.0%	0.0%	0.00%	0.01250	1.000	7.26	7.26	0.09	2.18	0.40	0.00	0.00	100%
									Subtotal =			7.77	186.49	34.03		
<b>Booth 5</b>																
9815-4542FC Epoxy	9.4	35.00%	0.0%	35.0%	0.0%	65.00%	0.08330	12.000	3.29	3.29	3.29	78.93	14.40	5.35	5.06	80%

\* 1 unit = 125,000 parts

\*\* Controlled PTE is based on a dry filter efficiency of 98%.

**Uncontrolled PTE = 11.06    265.42    48.44    28.99**  
**Controlled PTE \*\* = 48.44    0.58**

**METHODOLOGY**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)

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

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

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

**Company Name: D&S Industries, Inc.  
Address City IN Zip: 207 St. Joseph Street, Bristol, Indiana 46507  
Permit: M039-24564-00667  
Reviewer: ERG/BS  
Date: 5/17/2007**

Material	Density	Gallons of Material	Maximum	Weight %	Toluene Emissions	Weight %	Xylene Emissions	Weight %	Ethyl Benzene Emissions
	(Lb/Gal)	(gal/unit)	(unit/hour)	Toluene	(ton/yr)	Xylene	(ton/yr)	Ethyl Benzene	(ton/yr)
F63B60 Black	8.1	1.12500	1.000	4.00%	1.60	0.00%	0.00	0.00%	0.00
F63W66 White	11.5	1.12500	1.000	2.00%	1.13	0.00%	0.00	0.00%	0.00
T-272 Activator	9.0	0.01600	1.000	0.00%	0.00	15.00%	0.09	0.25%	0.00
Toluene	7.3	0.01250	1.000	100.00%	0.40	0.00%	0.00	0.00%	0.00

**Total Potential to Emit (ton/yr)      3.13                      0.095                      0.002**

**METHODOLOGY**

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

**Appendix A: Emissions Calculations  
Particulate Emissions from Powder Coating**

**Company Name:** D&S Industries, Inc.  
**Address City IN Zip:** 207 St. Joseph Street, Bristol, Indiana 46507  
**Permit:** M039-24564-00667  
**Reviewer:** ERG/BS  
**Date:** 5/17/2007

			<u>PM Potential to Emit</u>
<b>Powder Coating Line (PCL) 1</b>			
Transfer Efficiency	0.5	(3.75 lbs powder per hour) x (1-.50 transfer efficiency) x (1-.999 filter efficiency) =	0.0019 lb/hr
Filter Efficiency	0.999	lbs PM/hr x 1 ton/2000 lbs x 8760 hrs/yr =	0.0082 ton/yr
Booth Capacity	3.75 lbs/hr of powder		
<b>Powder Coating Line (PCL) 2</b>			
Transfer Efficiency	0.5	(14.98 lbs powder per hour) x (1-.50 transfer efficiency) x (1-.999 filter efficiency) =	0.0075 lb/hr
Filter Efficiency	0.999	lbs PM/hr x 1 ton/2000 lbs x 8760 hrs/yr =	0.0328 ton/yr
Booth Capacity	14.98 lbs/hr of powder		
<b>Powder Coating Line (PCL) 2</b>			
Transfer Efficiency	0.5	(19.84 lbs powder per hour) x (1-.50 transfer efficiency) x (1-.999 filter efficiency) =	0.0099 lb/hr
Filter Efficiency	0.999	lbs PM/hr x 1 ton/2000 lbs x 8760 hrs/yr =	0.0434 ton/yr
Booth Capacity	19.84 lbs/hr of powder		

**Potential PM Emissions**      Total of 38.57 lbs/hr of powder

Each powder coating line operates independently and is considered a separate emission unit

The cartridge filters operate with an efficiency of 99.9% and are part of an integral powder recovery system. Therefore, the PTE of the units is determined after its impact.

**Appendix A: Emission Calculations  
Fugitive Emissions From Paved Roads**

**Company Name: D&S Industries, Inc.  
Address: 207 St. Joseph Street, Bristol, Indiana 46507  
Permit: M039-24564-00667  
Reviewer: ERG/BS  
Date: 5/17/2007**

**Emission Factors: AP-42**

According to AP-42, Chapter 13.2.1 - Paved Roads (12/03), the PM/PM10 emission factors for paved roads can be estimated from the following equation:

$$E = (k \times (sL/2)^a \times (w/3)^b - C) \times (1 - p/(4 \times 365))$$

where:

E = emission factor (lb/vehicle mile traveled)

sL (non-Winter) = road surface silt loading (g/m<sup>2</sup>) = 0.6 (g/m<sup>2</sup>) (AP-42, Table 13.2.1-3)

sL (Winter) = sL (non-Winter) x 4 (g/m<sup>2</sup>) = 2.4 (g/m<sup>2</sup>) (AP-42, Table 13.2.1-3)

w = mean vehicle weight (tons) = 15.0 tons

k = empirical constant = 0.082 for PM and 0.016 for PM10

a = empirical constant = 0.65

b = empirical constant = 1.5

C = emission factor for exhaust, brake and tire wear = 0.00047 for PM and PM10

p = number of days per year with 0.01 inches precipitation = 125

PM Emission Factor (non-Winter) =  $(0.082 \times (0.6/2)^{0.65} \times (15/3)^{1.5} - 0.00047) \times (1 - 120/1460) = 0.38 \text{ lbs/mile}$

PM10 Emission Factor (non-Winter) =  $(0.016 \times (0.6/2)^{0.65} \times (15/3)^{1.5} - 0.00047) \times (1 - 120/1460) = 0.07 \text{ lbs/mile}$

PM Emission Factor (Winter) =  $(0.082 \times (2.4/2)^{0.65} \times (15/3)^{1.5} - 0.00047) \times (1 - 120/1460) = 0.94 \text{ lbs/mile}$

PM10 Emission Factor (Winter) =  $(0.016 \times (2.4/2)^{0.65} \times (15/3)^{1.5} - 0.00047) \times (1 - 120/1460) = 0.18 \text{ lbs/mile}$

PM Emission Factor (Average Annual) = ((PM Emission Factor (non-Winter) x 9) + (PM Emission Factor (Winter) x 3))/12

PM Emission Factor (Average Annual) = **0.52 lbs/mile**

PM10 Emission Factor (Average Annual) = ((PM10 Emission Factor (non-Winter) x 9) + (PM10 Emission Factor (Winter) x 3))/12

PM10 Emission Factor (Average Annual) = **0.10 lbs/mile**

**Potential to Emit (PTE) of PM/PM10 from Paved Roads:**

Vehicle Type	Ave Weight of Vehicles (tons)	Trip Number (trips/yr)	Round Trip Distance* (mile/trip)	Vehicle Mile Traveled (VMT) (miles/yr)	Traffic Component (%)	Component Vehicle Weight (tons)	PTE of PM (tons/yr)	PTE of PM10 (tons/yr)
Trucks and tractors	15.0	4,380	0.007	31	100.0%	15.00	0.008	0.002
<b>Total</b>					<b>100%</b>	<b>15.0</b>	<b>0.008</b>	<b>0.002</b>

**Methodology**

Vehicle Mile Traveled (miles/yr) = Trip Number (trips/yr) x Round Trip Distance (mile/trip)

Traffic Component (%) = VMT / Total VMT

Component Vehicle Weight = Ave. Weight of Vehicles (tons) x Traffic Component (%)

PTE of PM/PM10 before Control (tons/yr) = VMT (miles/yr) x PM/PM10 Emission Factors (Average Annual) x 1 ton/2000 lbs

**Appendix A: Emission Calculations  
Fugitive Emissions From Unpaved Roads**

**Company Name: D&S Industries, Inc.  
Address: 207 St. Joseph Street, Bristol, Indiana 46507  
Permit: M039-24564-00667  
Reviewer: ERG/BS  
Date: 5/17/2007**

**Unpaved Road Emission Factors: AP-42**

According to AP-42, Section 13.2.2 Unpaved Roads, November 2006, the PM/PM10 emission factors for unpaved roads can be estimated from the following equation:

$$\text{lbs/VMT Equation: } E = k (s/12)^a (W/3)^b$$

Where:

Particle size multiplier k	4.9 dimensionless (PM-30 or TSP)	1.5 dimensionless PM-10
surface material silt content (%) s	8.5 Table 13.2.2-1	
mean vehicle weight W	15.00 tons	
Equation constants a	0.7 PM-30 or TSP Table 13.2.2-2	0.9 PM-10 Table 13.2.2-2
b	0.45 PM-30 or TSP Table 13.2.2-2	0.45 PM-10 Table 13.2.2-2

$$\text{PM Emission Factor} = (4.9) \times (8.5/12)^{0.7} \times (15/3)^{0.45} = 7.94 \text{ lbs/mile}$$

$$\text{PM10 Emission Factor} = (1.5) \times (8.5/12)^{0.9} \times (15/3)^{0.45} = 2.27 \text{ lbs/mile}$$

**Potential to Emit (PTE) of PM/PM10 from unpaved Roads:**

Emission Area	Vehicle Weight (tons)	Unpaved Total VMT	Total Vehicle Emissions (lb/yr)	Total Vehicle Emissions (tpy)
Roads (PM)	15.00	31	246	<b>0.12</b>
Roads (PM10)	15.00	31	70	<b>0.04</b>

**Methodology**

Total Vehicle Emissions (tons/yr) = Unpaved Total VMT (miles/yr) x PM/PM10 Emission Factors x 1 ton/2000 lbs

**Appendix A: Emissions Calculations  
From Natural Gas Combustion**

**Company Name: D&S Industries, Inc.**  
**Address City IN Zip: 207 St. Joseph Street, Bristol, Indiana 46507**  
**Permit: M039-24564-00667**  
**Reviewer: ERG/BS**  
**Date: 5/17/2007**

Total Heat Input Capacity:  MMBtu/hr      Potential Throughput:  MMCF/yr       MMCF/hr

Criteria Pollutants	Pollutant					
Emission Factor in lb/MMCF	PM 7.6	PM10 7.6	SO2 0.6	NOx 100.0 **see below	VOC 5.5	CO 84.0
Potential Emission in tons/yr	0.32	0.32	0.03	4.27	0.23	3.59

\*\*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

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

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

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

**HAPs**

**HAPs - Organics**

	Benzene	Dichloro- benzene	Formal- dehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

**HAPs - Metals**

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

**METHODOLOGY**

Methodology is the same as page 1.

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

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