



Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

April 12, 2004

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

TO: Interested Parties / Applicant

RE: D. H. Machine, Inc. / MSOP 039-18406-00591

FROM: Paul Dubenetzky
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 9/16/03



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**NEW SOURCE CONSTRUCTION PERMIT
and
MINOR SOURCE OPERATING PERMIT
OFFICE OF AIR QUALITY**

**D. H. Machine, Inc.
352 N. Tomahawk Trail
Nappanee, IN 46550**

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

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

Operation Permit No.: MSOP 039-18406-00591	
Issued by: Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: April 12, 2004 Expiration Date: April 12, 2009

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SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary custom metal parts and products fabrication and surface coating plant.

Authorized Individual:	Delbert Helmuth, President
Source Address:	352 North Tomahawk Trail, Nappanee, IN 46550
Mailing Address:	352 North Tomahawk Trail, Nappanee, IN 46550
General Source Phone:	(574) 773-9211
SIC Code:	3499
County Location:	Elkhart
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source, under PSD or Emission Offset Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) Two (2) manual closed loop dry powder coating stations, identified as PC-01 and PC-02, equipped with two (2) Kemco cartridge filter systems to capture and return all excess powder to application system.
- (b) One (1) 100 gallon capacity dip tank for coating metal parts with a water reducible enamel paint, identified as DT-01.
- (c) Five (5) MIG welding stations.
- (d) Two (2) diesel fired generators, identified as DG-01 and DG-02, with rated capacities of 80 HP and 300 HP, respectively.
- (e) One (1) three-phase iron phosphate Rotocleaner water-wash system, designated as WW-01, with a heat input capacity of 1.0 mmBtu/hr.
- (f) One (1) natural gas-fired bake oven, identified as BO-01, with a maximum heat input capacity of 1.5 mmBtu/hr.
- (g) One (1) natural gas-fired burn-off oven, identified as HC-01, with a maximum heat input capacity of 0.3 mmBtu/hr.
- (h) One (1) natural gas-fired heater, identified as H-01, with a maximum heat input capacity of 0.48 mmBtu/hr.
- (i) One (1) above ground storage tank for diesel fuel, with a storage capacity of 1000 gallons, with a maximum throughput of 40.0 tons per year.
- (j) Insignificant activities: manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (k) Insignificant activities: grinding and machining operations controlled with fabric filters, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting, pneumatic conveying, and woodworking operations.
- (l) Insignificant activity: One (1) emergency diesel fired generator, identified as DG-03, with a rated capacity of 420 HP.

SECTION B GENERAL CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

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.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]

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

B.5 Permit Term and Renewal [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5]

This permit 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 of this permit do not affect the expiration date.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

B.6 Modification to Permit [326 IAC 2]

Notwithstanding the Section B condition entitled "Minor Source Operating Permit", all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.7 Minor Source Operating Permit [326 IAC 2-6.1]

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section.
 - (1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
 - (2) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2-6.1-6 and an Operation Permit Validation Letter is issued.

- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section, the Permittee shall attach it to this document.
- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).

B.8 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted 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) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and 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, P.O. Box 6015
Indianapolis, IN 46206-6015
- (d) 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 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.
- (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, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1.
- (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)]
- (d) No permit amendment or modification is required for the addition, operation or removal of a non-road engine, as defined in 40 CFR 89.2.

**B.10 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)] [IC 13-14-2-2]
[IC13-17-3-2][IC 13-30-3-1]**

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

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (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 processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (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.11 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)]:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, shall issue a revised permit.

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

B.12 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, I/M & Billing Section), to determine the appropriate permit fee.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

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 non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 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.5 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, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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 2-7-1(34).

- (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

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

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

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
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 date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ (and local agency) not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, (and local agency), 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.7 Compliance Requirements [326 IAC 2-1.1-11]

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

Compliance Monitoring Requirements

C.8 Compliance Monitoring [326 IAC 2-1.1-11]

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

C.9 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]

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

Record Keeping and Reporting Requirements

C.10 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.11 General Record Keeping Requirements [326 IAC 2-6.1-5]

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

C.12 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, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (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, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The report does not 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.

SECTION D.1 EMISSIONS UNITS OPERATION CONDITIONS

Emissions Unit Description:

- (a) Two (2) manual closed loop dry powder coating stations, identified as PC-01 and PC-02, equipped with two (2) Kemco cartridge filter systems to capture and return all excess powder to the application system.
- (b) One (1) 100 gallon capacity dip tank for coating metal parts with a water reducible enamel paint, identified as DT-01.

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

Emission Limitations and Standards

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9(d), the owner or operator of the dip coating operation DT-01, which is engaged in the surface coating of miscellaneous metal parts and products, may not cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator, in a coating application system that is air dried.

Compliance Determination Requirements

D.1.2 Particulate Matter

The cartridge filters shall operate at all times when one (1) or both of the powder coating booths PC-01 or PC-02 are in operation.

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

D.1.3 Record Keeping Requirements

(a) For the dip coating operation DT-01, pursuant to 8-1-2(10), the source may determine compliance with the requirements of Condition D.1.1 by the following method:

- (A) A monthly volume weighted average of all coatings applied in a coating tank. For each coating, thinner, or solvent, the following records shall be maintained:
 - (i) Monthly usage.
 - (ii) VOC content as supplied by the manufacturer for coatings, thinners, and solvents.
 - (iii) Monthly emissions in pounds of VOC.
 - (iv) Calculated monthly volume-weighted average VOC content of the coating as applied.

Records necessary for determining compliance shall be maintained at the source for a minimum of three (3) years and shall be made available upon request.

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

D.1.4 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 and D.1.3 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1.

SECTION D.2

EMISSIONS UNITS OPERATION CONDITIONS

Emissions Unit Description:

- (a) Two (2) diesel fired generators, identified as DG-01 and DG-02, with rated capacities of 80 HP and 300 HP, respectively.

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

There are no specific requirements for the emission units in this section.

Indiana Department of Environmental Management Office of Air Quality Compliance Data Section

Quarterly Report

Company Name: D. H. Machine, Inc.
Location: 352 Tomahawk Trail, Nappanee, IN 46550
Permit No.: 039-18406-00591
Source: Dip Coating Process DT-01
Pollutant: Volatile Organic Compounds (VOC)
Limit: 3.5 pounds of VOC per gallon of coating, less water

Year: _____

Month	lb of VOC/gal of coating, excluding water

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

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

**MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

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

Company Name:	D. H. Machine, Inc.
Address:	352 North Tomahawk Trail
City:	Nappanee, IN 46550
Phone #:	
MSOP #:	039-18406-00591

I hereby certify that **D. H. Machine, Inc.** is still in operation.
 no longer in operation.

I hereby certify that **D. H. Machine, Inc.** is in compliance with the requirements of MSOP **039-18406-00591**
 not in compliance with the requirements of MSOP **039-18406-00591**

Authorized Individual (typed):
Title:
Signature:
Date:

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

Noncompliance:

MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-5967**

**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: ____/____/19____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/19____ _____ AM/PM

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

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

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

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

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

326 IAC 1-6-1 Applicability of rule

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

326 IAC 1-2-39 "Malfunction" definition

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

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

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

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

Addendum to the
Technical Support Document for New Construction and Operation

Source Name:	D. H. Machine, Inc.
Source Location:	352 N. Tomahawk Trail, Nappanee, IN 46550
County:	Elkhart
SIC Code:	3499
Operating Permit No.:	039-18406-00591
Permit Reviewer:	Madhurima D. Moulik

On February 26, 2004, the Office of Air Quality (OAQ) had a notice published in the Elkhart Truth, Elkhart, Indiana, stating that D. H. Machine, Inc. had applied for a construction permit to construct and operate a custom metal parts fabrication and surface coating plant. The notice also stated that OAQ proposed to issue a permit for this installation 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.

On March 12, 2004, D. H. Machine, Inc. submitted comments on the proposed construction permit. The summary of the comments and corresponding responses is as follows:

Comments:

In sections A.2 and D.1 change the description as follows (~~strikeout~~ to show deletions and **bold** to show additions):

- (a) Two (2) manual closed loop dry powder coating stations, identified as PC-01 and PC-02, equipped with two (2) Kemco cartridge filter systems to capture **and return** all excess powder ~~and return~~ to the application system.

Response:

The descriptions in sections A.2 and D.1 have been changed as requested.

After internal review at the Office of Air Quality, the following errors were identified in the permit and corrected:

Comment:

A.2(e) has a typographical error.

Response:

A.2(e) has been changed as follows:

One (1) three-phase ~~three-phase~~ iron phosphate Rotocleaner water-wash system, designated as WW-01, with a heat input capacity of 1.0 mmBtu/hr.

Comment:

C.11(Emission Statement [326 IAC 2-6]) does not apply to MSOP sources any longer. Therefore, this condition should be deleted.

Response:

C.11 is deleted as follows, and the subsequent sections are re-numbered.

~~C.11 — Emission Statement [326 IAC 2-6]~~

- ~~(a) — The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:~~
- ~~(1) — Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);~~
- ~~(2) — Indicate estimated actual emissions of regulated pollutants (as defined by 326 IAC 2-7-1(32) "Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purposes of Part 70 fee assessment.~~
- ~~(b) — The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30. The annual emission statement must be submitted to:~~
- ~~Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015~~
- ~~(c) — The annual emission statement 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.~~

~~The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.~~

~~C.12-11 General Record Keeping Requirements [326 IAC 2-6.1-5]~~

The Table of Contents has been changed as follows:

- ~~C.11 — Emission Statement [326 IAC 2-6]~~
~~C.42 11 General Record Keeping Requirements [326 IAC 2-6.1-2]~~
~~C.43 12 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]~~

Comment:

The Quarterly Report lists the Responsible Official name in the Location field.

Response:

The Quarterly Report form is modified as follows:

Company Name: D. H. Machine, Inc.
Location: Delbert Helmuth 352 Tomahawk Trail, Nappanee, IN 46550

D. H. Machine, Inc.
Nappanee, Indiana
Permit Reviewer: Madhurima D. Moulik

Page 3 of 3
TSD Add: MSOP 039-18406-00591

Permit No.: 039-18406-00591
Source: Dip Coating Process DT-01
Pollutant: Volatile Organic Compounds (VOC)

**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. H. Machine, Inc.
Source Location:	352 N. Tomahawk Trail, Nappanee, IN 46550
County:	Elkhart
SIC Code:	3499
Operating Permit No.:	039-18406-00591
Permit Reviewer:	Madhurima D. Moulik

The Office of Air Quality (OAQ) has reviewed an application from D. H. Machine, Inc. relating to the construction and operation of a custom metal parts fabrication and surface coating plant.

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted facilities/units:

- (a) Two (2) manual closed loop dry powder coating stations, identified as PC-01 and PC-02, equipped with two (2) Kemco cartridge filter systems to capture all excess powder and return to application system.
- (b) One (1) 100 gallon capacity dip tank for coating metal parts with a water reducible enamel paint, identified as DT-01.
- (c) Five (5) MIG welding stations.
- (d) Two (2) diesel fired generators, identified as DG-01 and DG-02, with rated capacities of 80 HP and 300 HP, respectively.
- (e) One (1) three-phase iron phosphate Rotocleaner water-wash system, designated as WW-01, with a heat input capacity of 1.0 mmBtu/hr.
- (f) One (1) natural gas-fired bake oven, identified as BO-01, with a maximum heat input capacity of 1.5 mmBtu/hr.
- (g) One (1) natural gas-fired burn-off oven, identified as HC-01, with a maximum heat input capacity of 0.3 mmBtu/hr.
- (h) One (1) natural gas-fired heater, identified as H-01, with a maximum heat input capacity of 0.48 mmBtu/hr.
- (i) One (1) above ground storage tank for diesel fuel, with a storage capacity of 1000 gallons, with a maximum throughput of 40.0 tons per year.
- (j) Insignificant activities: manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (k) Insignificant activities: grinding and machining operations controlled with fabric filters, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting, pneumatic conveying, and woodworking operations.
- (l) Insignificant activity: One (1) emergency diesel fired generator, identified as DG-03, with a rated capacity of 420 HP.

Existing Approvals

This source does not have any existing permit approvals.

Air Pollution Control Justification as an Integral Part of the Process

The company has submitted the following justification such that the Kemco cartridge filter systems be considered as an integral part of the dry powder coating stations PC-01 and PC-02:

- (a) The entire system is a closed loop system, with no direct external exhausts, and the powder coating operation cannot be performed without operating the cartridge filters.

- (b) The primary purpose of the cartridge filter is cost-cutting by recovering expensive unused powder for recycling. The equipment would still be installed if no air quality regulations were in place.

IDEM, OAQ has evaluated the justifications and agreed that the cartridge filters will be considered as an integral part of the dry powder coating booths PC-01 and PC-02. Therefore, the permitting level will be determined using the potential to emit after the cartridge filters. Operating conditions in the proposed permit will specify that the cartridge filters shall operate at all times when one (1) or both of the powder coating booths PC-01 or PC-02 are in operation.

Enforcement Issue

- (a) 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 “Unpermitted Emission Units and Pollution Control Equipment”.
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
H-01	Heater	24.0	0.5	200	100.0
SV-01	Water Heater	24.0	0.5	200	100.0
SV-02, SV-03	Steam Vents	24.0	0.5	175	10.0
SV-04	Bake Oven BO-01	24.0	1.17	200	100.0
SV-05	Burn-Off Oven HC-01	24.0	1.33	500	100.0
SV-06	80 HP Diesel Generator	8.0	0.3	77	100.0
SV-07	300 HP Diesel Generator	8.0	0.3	77	100.0
SV-08	420 HP Diesel Generator	8.0	0.3	77	100.0

Recommendation

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

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

A complete application for the purposes of this review was received on January 16, 2004.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

Note: The potential to emit of the 420 HP emergency generator, which shall be operated for less than 500 hours per year according to EPA guidelines for emergency generators, has been calculated at 500 hr/yr usage rate.

Powder Coating Booths PC-01 and PC-02:

Efficiency of cartridge filter = **99%**

Usage Rate = 5.7 lb/hr.

Therefore, **Potential to Emit of PM/PM-10** = 0.01x 5.7 lb/hr x 8760 hr/yr x 1 ton/2000 lb = **0.25 tpy**

Dip Coating Process DT-01:

Amount of aqualite black enamel paint used up = 27.5 gallons/month
 Material Density = 8.61 lb/gal
 VOC content = 15% (excluding water)

Therefore, **PTE of VOC** = 0.15 x 8.61 lb/gal x 27.5 gallons/month x 12 months/yr x 1 ton/2000 lb
 = **0.21 tpy**

PTE of HAP = 0.21 tpy

Bake Oven and Burn-Off Oven:

VOC content in overspray = Negligible

Therefore, emissions from ovens = emissions due to combustion (included in Appendix A).

Diesel Storage Tank (covered):

Emissions of VOC = estimated to be negligible.

Potential to Emit of the Source Before Controls

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

Pollutant	Potential to Emit (tons/yr)
PM	4.26
PM-10	4.26
SO ₂	3.63
VOC	4.75
CO	13.02
NO _x	56.25

HAPs	Potential to Emit (tons/yr)
Single HAP	<10
Total	<25

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. An MSOP will be issued.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment

CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (b) Elkhart County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

Source Status

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

Pollutant	Emissions (tons/yr)
PM	4.26
PM-10	4.26
SO ₂	3.63
VOC	4.75
CO	13.02
NO _x	56.25
Single HAP	Less than 10
Combination HAPs	Less than 25

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

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

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

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

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) The 100 gallon dip tank identified as DT-01 and the 1000 gallon diesel fuel storage tank are not subject to the requirements of the New Source Performance Standard, 326 IAC 12 (40 CFR 60, Subpart Kb) – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, because the capacity of each tank is less than 75 cubic meter applicability threshold.
- (b) The iron phosphate wash system is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart T – Standards of Performance for Halogenated Solvent Cleaning because the wash system does not use any organic solvents.

- (c) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart M – Standards for Miscellaneous Metal Parts and Products Surface Coating, since this source is an area source for HAPs.
- (d) The bake-off and burn-off ovens are not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart EEE – Standards for Hazardous Waste Combustors, because the ovens do not combust any hazardous waste.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

The potential to emit of all criteria pollutants from this source is less than 250 tons per year, and it is not one of the twenty-eight (28) listed source categories. Therefore, 326 IAC 2-2 does not apply.

326 IAC 2-6 (Emission Reporting)

This source, located in Elkhart County is subject to 326 IAC 2-6 (Emission Reporting) because it has the potential to emit more than ten (10) tons per year of NOx. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

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

The operation of this metal parts fabrication and surface coating operation will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 5-1 (Visible Emissions 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.

State Rule Applicability – Individual Facilities

326 IAC 6-3-2 (Process Operations)

Surface coating operations using dip coating are exempt from 326 IAC 6-3. Therefore, DT-01 is not subject to the requirements of 326 IAC 6-3.

The welding process at this source uses less than 625 pounds of rod per day. Therefore, it is not subject to the requirements of 326 IAC 6-3.

Manufacturing processes with potential emissions less than 0.551 lb/hr of PM/PM-10 are exempt. Therefore PC-01 and PC-02, which are equipped with cartridge filters that are integral to the process, are exempt from the requirements of 326 IAC 6-3.

The bake oven BO-01 and burn-off oven HC-01 at this facility meet the definition of “incinerator” as defined in 326 IAC 1-2-34, and are therefore exempt from the requirements of 326 IAC 6-3.

326 IAC 4-2-2 (Incinerators)

The bake oven BO-01 and burn-off oven HC-01 at this facility are used to heat the powder coating overspray so that the powder can be shaken loose. There is no combustion of paints in these ovens. Therefore, these ovens are not subject to 326 IAC 4-2-2.

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

This source performs dip coating of metal parts and products under the Standard Industrial Classification Code of major group #34. Therefore, it is subject to the requirements of 326 IAC 8-2-9.

Pursuant to 326 IAC 8-2-9(d), no owner or operator of a facility engaged in the surface coating of miscellaneous metal parts and products may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator, in a coating application system that is air dried.

Based on the MSDS for the Black Enamel Dip Coating material, the VOC content is 1.3 pounds per gallon. Therefore, the source is in compliance with 326 IAC 8-2-9.

For the dip coating operation DT-01, pursuant to 8-1-2(10), the source may determine compliance with the requirements of 326 IAC 8-2-9 by the following method:

- (A) A monthly volume weighted average of all coatings applied in a coating tank. For each coating, thinner, or solvent, the following records shall be maintained:
- (i) Monthly usage.
 - (ii) VOC content as supplied by the manufacturer for coatings, thinners, and solvents.
 - (iii) Monthly emissions in pounds of VOC.
 - (iv) Calculated monthly volume-weighted average VOC content of the coating as applied.

Records necessary for determining compliance shall be maintained at the source for a minimum of three (3) years and shall be made available upon request.

326 IAC 8-3-2 and 326 IAC 8-3-5 (Organic Cold Cleaner Degreasers)

The iron phosphate water wash system does not use any organic solvents for cleaning. Therefore, 326 IAC 8-3-2 and 326 IAC 8-3-5 do not apply.

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements)

The emission units at this source all have potential VOC emissions of less than 25 tons per year. Therefore, 326 IAC 8-1-6 does not apply.

Conclusion

The construction and operation of this metal parts and products fabrication and surface coating facility shall be subject to the conditions of the New Source Construction and Minor Source Operating Permit 039-18406-00591.

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

Space and Water Heaters

Company Name: D. H. Machine, Inc.
Address City IN Zip: 352 North Tomahawk Trail, Nappanee, IN 46550
Permit Number: 039-18406
Plt ID: 039-00591
Reviewer: Madhurima D. Moulik
Date: 29-Jan-04

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

3.3

28.7

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.1	0.1	0.0	1.4	0.1	1.2

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

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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

See page 2 for HAPs emissions calculations.

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

**Space and Water Heaters
HAPs Emissions**

**Company Name: D. H. Machine, Inc.
Address City IN Zip: 352 North Tomahawk Trail, Nappanee, IN 46550
Permit Number: 039-18406
Plt ID: 039-00591
Reviewer: Madhurima D. Moulik
Date: 29-Jan-04**

HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	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	3.017E-05	1.724E-05	1.077E-03	2.586E-02	4.885E-05

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	7.183E-06	1.580E-05	2.011E-05	5.459E-06	3.017E-05

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.

**Appendix A: Emission Calculations
Internal Combustion Engines - Diesel Fuel
Turbine (>250 and <600 HP)
Reciprocating**

Company Name: D. H. Machine, Inc.
Address City IN Zip: 352 North Tomahawk Trail, Nappanee, IN 46550
Permit Number: 039-18406
Plt ID: 039-00591
Reviewer: Madhurima D. Moulik
Date: 29-Jan-04

A. Emissions calculated based on heat input capacity (MMBtu/hr)

Heat Input Capacity
MM Btu/hr

0.2

Emission Factor in lb/MMBtu	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
0.31	0.31	0.29	4.41	0.4	0.95	
Potential Emission in tons/yr	0.28	0.28	0.26	3.94	0.32	0.85

B. Emissions calculated based on output rating (hp)

Heat Input Capacity
Horsepower (hp)

80.0

Potential Throughput
hp-hr/yr

700800.0

Emission Factor in lb/hp-hr	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
0.0022	0.0022	0.0021	0.0310	0.0025	0.0067	
Potential Emission in tons/yr	0.77	0.77	0.72	10.86	0.88	2.34

Methodology

Potential Throughput (hp-hr/yr) = hp * 8760hr/yr

Use a conversion factor of 7,000 Btu per hp-hr to convert from horsepower to Btu/hr, unless the source gives you a source-specific brake-specific fuel consumption. (AP-42, Footnote a, Table 3.3-1)

Emission Factors are from AP42 (Supplement B 10/96), Table 3.3-2

Emission (tons/yr) = [Heat input rate (MMBtu/hr) x Emission Factor (lb/MMBtu)] * 8760 hr/yr / (2,000 lb/ton)

Emission (tons/yr) = [Potential Throughput (hp-hr/yr) x Emission Factor (lb/hp-hr)] / (2,000 lb/ton)

*PM emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

**Appendix A: Emission Calculations
Internal Combustion Engines - Diesel Fuel
Turbine (>250 and <600 HP)
Reciprocating**

Company Name: D. H. Machine, Inc.
Address City IN Zip: 352 North Tomahawk Trail, Nappanee, IN 46550
Permit Number: 039-18406
Plt ID: 039-00591
Reviewer: Madhurima D. Moulik
Date: 29-Jan-04

A. Emissions calculated based on heat input capacity (MMBtu/hr) (Note: Intermittent)

Heat Input Capacity
MM Btu/hr

0.8

Emission Factor in lb/MMBtu	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
0.31	0.31	0.31	0.29	4.41	0.4	0.95
Potential Emission in tons/yr	1.04	1.04	0.97	14.76	1.20	3.18

B. Emissions calculated based on output rating (hp)

Heat Input Capacity
Horsepower (hp)

300.0

Potential Throughput
hp-hr/yr

2628000.0

Emission Factor in lb/hp-hr	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Potential Emission in tons/yr	2.89	2.89	2.69	40.73	3.30	8.78

Methodology

Potential Throughput (hp-hr/yr) = hp * 8760hr/yr

Use a conversion factor of 7,000 Btu per hp-hr to convert from horsepower to Btu/hr, unless the source gives you a source-specific brake-specific fuel consumption. (AP-42, Footnote a, Table 3.3-1)

Emission Factors are from AP42 (Supplement B 10/96), Table 3.3-2

Emission (tons/yr) = [Heat input rate (MMBtu/hr) x Emission Factor (lb/MMBtu)] * 8760 hr/yr / (2,000 lb/ton)

Emission (tons/yr) = [Potential Throughput (hp-hr/yr) x Emission Factor (lb/hp-hr)] / (2,000 lb/ton)

*PM emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Appendix A: Emission Calculations
Internal Combustion Engines - Diesel Fuel
Turbine (>250 and <600 HP)
Reciprocating- Emergency Generator (less than 500 hr/yr)

Company Name: D. H. Machine, Inc.
Address City IN Zip: 352 North Tomahawk Trail, Nappanee, IN 46550
Permit Number: 039-18406
Plt ID: 039-00591
Reviewer: Madhurima D. Moulik
Date: 29-Jan-04

A. Emissions calculated based on heat input capacity (MMBtu/hr)

Heat Input Capacity
MM Btu/hr

1.1

Emission Factor in lb/MMBtu	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
0.31	0.31	0.31	0.29	4.41	0.4	0.95
Potential Emission in tons/yr	1.52	1.52	1.42	21.63	1.77	4.66

B. Emissions calculated based on output rating (hp)

Heat Input Capacity
Horsepower (hp)

420.0

Potential Throughput
hp-hr/yr

210000.0

Emission Factor in lb/hp-hr	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Potential Emission in tons/yr	0.23	0.23	0.22	3.26	0.26	0.70

Methodology

Potential Throughput (hp-hr/yr) = hp * 500 hr/yr. EPA guidelines state that emergency generators can operate for a maximum of 500 hours per year.

Use a conversion factor of 7,000 Btu per hp-hr to convert from horsepower to Btu/hr, unless the source gives you a source-specific brake-specific fuel consumption. (AP-42, Footnote a, Table 3.3-1)

Emission Factors are from AP42 (Supplement B 10/96), Table 3.3-2

Emission (tons/yr) = [Heat input rate (MMBtu/hr) x Emission Factor (lb/MMBtu)] * 8760 hr/yr / (2,000 lb/ton)

Emission (tons/yr) = [Potential Throughput (hp-hr/yr) x Emission Factor (lb/hp-hr)] / (2,000 lb/ton)

*PM emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

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

**Company Name: D. H. Machine, Inc.
Address City IN Zip: 352 North Tomahawk Trail, Nappanee, IN 46550
Permit Number: 039-18406
Pit ID: 039-00591
Reviewer: Madhurima D. Moulik
Date: 29-Jan-04**

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)	
			PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr		
WELDING												
Metal Inert Gas (MIG)(carbon steel)	4	0.55					0.012	0.001	0.000	0	0.001	
Tungsten Inert Gas (TIG)(carbon steel)	1	0.55					0.003	0.000	0.000	0	0.000	
Oxyacetylene(carbon steel)	1	0.65					0.004	0.000	0.000	0	0.000	
FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Plasma**	1	0.125	100					0.023	0.000	0.000	0.000	0.000
EMISSION TOTALS												
Potential Emissions lbs/hr								0.04				0.00
Potential Emissions lbs/day								1.01				0.04
Potential Emissions tons/year								0.18				0.01

METHODOLOGY

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

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

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

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

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

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

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

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

welding.xls (11/99)

Welding and other flame cutting emission factors are from an internal training session document, "Welding and Flame Cutting". See Rebecca Mason if you need a copy.

Refer to AP-42, Chapter 12.19 for additional emission factors for welding.

Appendix A: Emissions Calculations

Total Emissions

Company Name: D. H. Machine, Inc.
Address City IN Zip: 352 North Tomahawk Trail, Nappanee, IN 46550
Permit Number: 039-18406
Plt ID: 039-00591
Reviewer: Madhurima D. Moulik
Date: 29-Jan-04

Process	Potential To Emit (tons/yr)						
	PM	PM-10	SO2	NOx	VOC	CO	HAPs
Space Heaters	0.10	0.10	0.00	1.40	0.10	1.20	0.22
80 HP Generator	0.77	0.77	0.72	10.86	0.88	2.34	0.00
320 HP Generator	2.89	2.89	2.69	40.73	3.30	8.78	0.00
420 HP Gen. (Emergency) ¹	0.23	0.23	0.22	3.26	0.26	0.70	0.00
Welding + Cutting	0.02	0.02	0.00	0.00	0.00	0.00	0.01
Powder Coating	0.25	0.25	0.00	0.00	0.00	0.00	0.00
Dip Coating	0.00	0.00	0.00	0.00	0.21	0.00	0.21
Total PTE (tons/yr)	4.26	4.26	3.63	56.25	4.75	13.02	0.44

Note: ¹ This is an emergency generator to be used only if main generator fails. PTE is based on maximum 500 hr/yr use.