



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: June 3, 2008

RE: Hartzell Fan, Inc. / 075-25910-00018

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

Notice of Decision: Approval - Effective Immediately

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

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

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

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

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

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

Enclosures
FNPER.dot12/03/07



Mitchell E. Daniels, Jr.
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Thomas W. Easterly
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100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

Minor Source Operating Permit Renewal OFFICE OF AIR QUALITY

**Hartzell Fan, Inc.
1700 North Meridian Street
Portland, Indiana 47317**

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

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

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

Operation Permit No.: M 075-25910-00018	
Issued by/Original Signed By:	Issuance Date: June 3, 2008
	Expiration Date: June 3, 2018
Alfred C. Dumauval, Ph. D., Section Chief Permits Branch Office of Air Quality	

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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 fan and blower manufacturing source.

Source Address:	1700 North Meridian Street, Portland, Indiana 47317
Mailing Address:	910 South Downing Street, Piqua, OH 45356
General Source Phone Number:	260-726-9331
SIC Code:	3564
County Location:	Jay
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary

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

- (a) Two (2) paint booths, identified as P-1 and P-2, constructed in 1975, operating one (1) airless spray gun at a time, equipped with dry filters to control particulate overspray, exhausting through Stacks P-1 and P-2, capacity: 2.00 metal fan parts per hour.
- (b) Two (2) fiberglass spray booths, delivering resin to the applicators, identified as G-1 and G-2, constructed in 1976, operating one (1) mechanical non-atomized spray gun at a time, equipped with dry filters to control particulate overspray, exhausting through Stacks G-1 or G-2, capacity: 0.300 fiberglass fan parts per hour.
- (c) Two (2) fiberglass sanding booths, identified as 95-S-1 and 95-S-2, constructed in 1995, equipped with an ultra web filter for control, exhausting through Stacks 95-S-1 and 95-S-2 which discharge inside the plant, capacity: one (1) 60 pound fan per hour per booth.
- (d) One (1) fiberglass sawing station, identified as FG-Saw, constructed in 1996, equipped with dry filters for particulate control, exhausting through stack FG-Saw which discharges inside the plant, capacity: 300 pounds of raw material per hour.
- (e) One (1) enclosed pneumatic blasting facility, identified as AB-1, constructed in 2000, equipped with a floor recovery system, cyclone separator reclaimer and two (2) baghouses, identified as DFT3-24 and RPH3, capacity: 864 pounds per hour of brown fused aluminum oxide blasting media and 900 pounds per hour of metal and fiberglass fan parts.
- (f) One (1) enclosed pneumatic blasting facility, identified as Cabinet Blaster, using aluminum oxide blasting media, equipped with a baghouse, identified as CB-1, capacity: 354 pounds per hour of brown fused aluminum oxide blasting media and 147 pounds per hour of metal and fiberglass fan parts.
- (g) Source-wide natural gas-fired combustion, consisting of the following:
 - (1) Two (2) test stations, identified as TS-1 and TS-2, constructed in 1970, heat input capacity: 1.00 million British thermal units per hour, total;

- (2) One (1) air make-up unit, identified as AMU #5, constructed in 1995, heat input capacity: 2.50 million British thermal units per hour;
 - (3) Two (2) air make-up units, identified as AMU #6 and AMU #7, constructed in 1995, heat input capacity: 5.00 million British thermal units per hour, each;
 - (4) Two (2) air make-up units, identified as AMU #8 and AMU #9, constructed in 2007, heat input capacity of 2.9 million British thermal units per hour, each;
 - (5) Three (3) door heaters, identified as DH-1, DH-2, and DH-3, constructed in 1995, heat input capacity: 0.990 million British thermal units per hour, each;
 - (6) One (1) unit heater, identified as UH-1, constructed in 1995, exhausting through Stack UH-1, heat input capacity: 0.080 million British thermal units per hour;
 - (7) One (1) landa wash booth heater, identified as WB-1, constructed in 1995, exhausting through Stack WB-1, heat input capacity: 0.350 million British thermal units per hour; and
 - (8) One (1) office space heater, identified as OHU #1, constructed in 1998, exhausting through Stack OHU #1, heat input capacity: 0.080 million British thermal units per hour.
- (h) Eight (8) metal inert gas (MIG) welding stations consisting of the following:
- (1) Two (2) MIG welding stations, identified as WS-2 and WS-6, constructed in 1978, using 4043, 316LHS, or BR-3 welding wire, capacity: 3.00 pounds of welding wire per hour, each;
 - (2) Two (2) MIG welding stations, identified as WS-1 and WS-7, constructed in 1995, using 4043, 316LHS, or BR-3 welding wire, capacity: 3.00 pounds of welding wire per hour, each;
 - (3) One (1) MIG welding station, identified as WS-3, constructed in 1996, using 4043, 316LHS, or BR-3 welding wire, capacity: 3.00 pounds of welding wire per hour;
 - (4) Two (2) MIG welding stations, identified as WS-4 and WS-5, constructed in 1998, using 4043, 316LHS, or BR-3 welding wire, capacity 3.00 pounds of welding wire per hour, each; and
 - (5) One (1) MIG welding station, identified as WS-4030, constructed in 1995, using 4043, 316LHS, or BR-3 welding wire, capacity 3.00 pounds of welding wire per hour.
- (i) Two (2) oxyacetylene flame cutting stations, identified as AO-1 and AO-2, with a rate of thirty (30) inches per minute at a 3/8 inch thickness (formerly insignificant activities in FESOP 075-8564-00018, issued on September 26, 1997).
- (j) Five (5) spot welders, consisting of one (1) spot welding station, identified as SPW-4, constructed in 1975 and four (4) spot welding stations, identified as SPW-1, SPW-2, SPW-3, and SPW-5, constructed in 1996, emitting less than 0.551 pounds of particulate per hour, total.
- (k) One (1) MG Hydefinition machine (plasma cutter), identified as MG-1, equipped with a dust collector with ultra web filter for particulate control, exhausting inside, cuts at 80 inches per minute on 16 gauge hot rolled steel material to 20 inches per minute on 1/4 inch hot rolled steel.

- (l) One (1) portable plasma cutter, exhausting inside, cuts at 12 inches per minute on 3/8 inch hot rolled steel.
- (m) One (1) fiberglass press operation, identified as SMC-1, capacity 10,279 pounds of styrene composite material per year.

SECTION B GENERAL CONDITIONS

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

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-1.1-1) shall prevail.

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

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- (a) This permit, M 075-25910-00018, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5 (f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

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

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

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

B.4 Enforceability

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

B.5 Severability

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

B.6 Property Rights or Exclusive Privilege

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

B.7 Duty to Provide Information

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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.8 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.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

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

B.10 Preventive Maintenance Plan [326 IAC 1-6-3]

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

B.11 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to M 075-25910-00018 and issued pursuant to permitting programs approved into the state implementation plan have been either:

- (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

B.12 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least ninety (90) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.13 Permit Renewal [326 IAC 2-6.1-7]

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

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
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.14 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
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.15 Source Modification Requirement

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

B.16 Inspection and Entry

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

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

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

B.17 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

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

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
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.18 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.19 Credible Evidence [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

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

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to 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 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 Stack Height Provisions [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

C.7 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.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
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.9 Performance Testing [326 IAC 3-6]

- (a) 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.10 Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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

C.13 Instrument Specifications [326 IAC 2-1.1-11]

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

Corrective Actions and Response Steps

C.14 Response to Excursions or Exceedances

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

- (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
 - (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test

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

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

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

C.16 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.17 General Record Keeping Requirements [326 IAC 2-6.1-5]

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

C.18 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) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) Two (2) paint booths, identified as P-1 and P-2, constructed in 1975, operating one (1) airless spray gun at a time, equipped with dry filters to control particulate overspray, exhausting through Stacks P-1 and P-2, capacity: 2.00 metal fan parts per hour.
- (b) Two (2) fiberglass spray booths, delivering resin to the applicators, identified as G-1 and G-2, constructed in 1976, operating one (1) mechanical non-atomized spray gun at a time, equipped with dry filters to control particulate overspray, exhausting through Stacks G-1 or G-2, capacity: 0.300 fiberglass fan parts per hour.

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

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

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

Pursuant to 326 IAC 8-2-9, the owner or operator shall not allow the discharge into the atmosphere of VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicator from the two (2) paint booths, identified as P-1 and P-2.

D.1.2 Volatile Organic Compound (VOC) Limitations, Clean-up Requirements [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9(f), all solvents sprayed from the application equipment of the two (2) paint booths, identified as P-1 and P-2, during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.

D.1.3 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAPs) [326 IAC 8-1-6] [326 IAC 2-7]

- (a) Any reconstruction that increases the potential to emit VOC from the two (2) fiberglass spray booths, identified as G-1 and G-2, to greater than or equal to twenty-five (25) tons per year, may render the requirements of 326 IAC 8-1-6 applicable and require prior IDEM, OAQ approval.
- (b) Any change or modification to the two (2) paint booths or two (2) fiberglass spray booths that increases the potential to emit of a single hazardous air pollutant (HAP) from the entire source to greater than ten (10) tons per year or the potential to emit of any combination of HAPs to greater than twenty-five (25) tons per year, shall require prior IDEM, OAQ approval.

D.1.4 Particulate Matter (PM) [326 IAC 6-3-2]

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

- (a) Particulate from each of the paint booths (P-1 and P-2) and each of the fiberglass spray booths (G-1 and G-2) shall be controlled by a dry particulate filter, waterwash or an equivalent control device, and the Permittee shall operate the control device in accordance with manufacturer's specifications.
- (b) If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:

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

D.1.5 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the two (2) paint booths, identified as P-1 and P-2, the two (2) fiberglass spray booths, identified as G-1 and G-2, and their respective control devices.

Compliance Determination Requirements

D.1.6 Volatile Organic Compounds (VOC) [326 IAC 8-12]

Compliance with the VOC content limit in Condition D.1.1 shall be determined pursuant to 326 IAC 8-1-2(a)(7), using a volume weighted average of coatings on a daily basis. This volume weighted average shall be determined by the following equation:

$$A = [\sum C \times U] / \sum U$$

Where: A is the volume weighted average in pounds VOC per gallon less water as applied;

C is the VOC content of the coating in pounds VOC per gallon less water as applied;

and U is the usage rate of the coating in gallons per day.

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

D.1.7 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1 and D.1.3, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC and HAP usage and emission limits established in Conditions D.1.1 and D.1.3.
 - (1) The amount and VOC and HAP 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;
 - (2) The volume weighted VOC content of the coatings used for each day;
 - (3) The cleanup solvent usage for each month;
 - (4) The total VOC and HAP usage for each month; and
 - (5) The weight of VOCs and HAPs emitted for each compliance period.

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

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description

- (a) Two (2) fiberglass sanding booths, identified as 95-S-1 and 95-S-2, constructed in 1995, equipped with an ultra web filter for control, exhausting through Stacks 95-S-1 and 95-S-2 which discharge inside the plant, capacity: one (1) 60 pound fan per hour per booth.
- (b) One (1) fiberglass sawing station, identified as FG-Saw, constructed in 1996, equipped with dry filters for particulate control, exhausting through stack FG-Saw which discharges inside the plant, capacity: 300 pounds of raw material per hour.
- (c) One (1) enclosed pneumatic blasting facility, identified as AB-1, constructed in 2000, equipped with a floor recovery system, cyclone separator reclaimers and two (2) baghouses, identified as DFT3-24 and RPH3, capacity: 864 pounds per hour of brown fused aluminum oxide blasting media and 900 pounds per hour of metal and fiberglass fan parts.
- (d) One (1) enclosed pneumatic blasting facility, identified as Cabinet Blaster, using aluminum oxide blasting media, equipped with a baghouse, identified as CB-1, capacity: 354 pounds per hour of brown fused aluminum oxide blasting media and 147 pounds per hour of metal and fiberglass fan parts.

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

Emission Limitations and Standards

D.2.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from the two (2) fiberglass sanding booths, identified as 95-S-1 and 95-S-2, shall not exceed 0.551 pounds per hour each when operating at a process weight rate of less than 100 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from the one (1) fiberglass sawing station, identified as FG-Saw, shall not exceed 1.15 pounds per hour when operating at a process weight rate of 300 pounds per hour.
- (c) Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from the one (1) pneumatic blasting facility, identified as AB-1, shall not exceed 3.77 pounds per hour when operating at a process weight rate of 1764 pounds per hour.
- (d) Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from the one (1) pneumatic blasting facility, identified as Cabinet Blaster, shall not exceed 1.62 pounds per hour each when operating at a process weight rate of 501 pounds per hour.

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

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the two (2) fiberglass sanding booths, identified as 95-S-1 and 95-S-2, the one (1) fiberglass sawing station, identified as FG Saw, the one (1) pneumatic blasting facility, identified as AB-1, the one (1) pneumatic blasting facility, identified as Cabinet Blaster, and their respective control devices.

Compliance Determination Requirements

D.2.3 Particulate Control

- (a) In order to comply with Condition D.2.1(a), the ultra web filter for particulate control shall be in operation and control emissions from the two (2) fiberglass sanding booths, identified as 95-S-1 and 95-S-2, at all times that the two (2) fiberglass sanding booths are in operation.
- (b) In order to comply with Condition D.2.1(b), the dry filters for particulate control shall be in operation and control emissions from the one (1) fiberglass sawing station identified as FG Saw, at all times that the one (1) fiberglass sawing station is in operation.
- (c) In order to comply with Condition D.2.1(c), at least one (1) of the two (2) baghouses, identified as DFT3-24 and RPH3, for particulate control shall be in operation and control emissions from the one (1) pneumatic blasting facility, identified as AB-1, at all times that the one (1) pneumatic blasting, identified as AB-1, is in operation.
- (d) In order to comply with Condition D.2.1(d), the baghouse, identified as CB-1, for particulate control shall be in operation and control emissions from the one (1) pneumatic blasting facility, identified as Cabinet Blaster, at all times the one (1) pneumatic blasting facility, identified as Cabinet Blaster is in operation.

**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:	Harzell Fan, Inc.
Address:	1700 North Meridian Street
City:	Portland, Indiana 47317
Phone #:	260-726-9331
MSOP #:	M 075-25910-00018

I hereby certify that Harzell Fan, Inc. is :

still in operation.

no longer in operation.

I hereby certify that Harzell Fan, Inc. is :

in compliance with the requirements of MSOP M 075-25910-00018.

not in compliance with the requirements of MSOP M 075-25910-00018.

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

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

Noncompliance:

MALFUNCTION REPORT

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

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

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

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

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

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

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

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

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

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

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

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

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

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

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

326 IAC 1-6-1 Applicability of rule

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

326 IAC 1-2-39 "Malfunction" definition

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

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

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

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

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

Source Name: Harzell Fan, Inc.
Source Address: 1700 North Meridian Street, Portland, Indiana 47317
Mailing Address: 910 South Downing Street, Piqua, OH 45356
MSOP No.: 075-25910-00018

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

Indiana Department of Environmental Management
Office of Air Quality

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

Source Background and Description

Source Name:	Hartzell Fan, Inc.
Source Location:	1700 North Meridian Street, Portland, IN 47317
County:	Jay
SIC Code:	3564
Permit Renewal No.:	075-25910-00018
Permit Reviewer:	Christine L. Filutze

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Hartzell Fan, Inc. relating to the operation of a stationary fan and blower manufacturing source.

History

On January 16, 2008, Hartzell Fan, Inc. submitted an application to the OAQ requesting to renew its operating permit MSOP 075-14982-00018 which was issued on April 1, 2003.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) Two (2) paint booths, identified as P-1 and P-2, constructed in 1975, operating one (1) airless spray gun at a time, equipped with dry filters to control particulate overspray, exhausting through Stacks P-1 and P-2, capacity: 2.00 metal fan parts per hour.
- (b) Two (2) fiberglass spray booths, delivering resin to the applicators, identified as G-1 and G-2, constructed in 1976, operating one (1) mechanical non-atomized spray gun at a time, equipped with dry filters to control particulate overspray, exhausting through Stacks G-1 or G-2, capacity: 0.300 fiberglass fan parts per hour.
- (c) Two (2) fiberglass sanding booths, identified as 95-S-1 and 95-S-2, constructed in 1995, equipped with an ultra web filter for control, exhausting through Stacks 95-S-1 and 95-S-2 which discharge inside the plant, capacity: one (1) 60 pound fan per hour per booth.
- (d) One (1) fiberglass sawing station, identified as FG-Saw, constructed in 1996, equipped with dry filters for particulate control, exhausting through stack FG-Saw which discharges inside the plant, capacity: 300 pounds of raw material per hour.
- (e) One (1) enclosed pneumatic blasting facility, identified as AB-1, constructed in 2000, equipped with a floor recovery system, cyclone separator reclaimer and two (2) baghouses, identified as DFT3-24 and RPH3, capacity: 864 pounds per hour of brown fused aluminum oxide blasting media and 900 pounds per hour of metal and fiberglass fan parts.
- (f) One (1) enclosed pneumatic blasting facility, identified as Cabinet Blaster, using aluminum oxide blasting media, equipped with a baghouse, identified as CB-1, capacity:

354 pounds per hour of brown fused aluminum oxide blasting media and 147 pounds per hour of metal and fiberglass fan parts.

- (g) Source-wide natural gas-fired combustion, consisting of the following:
- (1) Two (2) test stations, identified as TS-1 and TS-2, constructed in 1970, heat input capacity: 1.00 million British thermal units per hour, total;
 - (2) One (1) air make-up unit, identified as AMU #5, constructed in 1995, heat input capacity: 2.50 million British thermal units per hour;
 - (3) Two (2) air make-up units, identified as AMU #6 and AMU #7, constructed in 1995, heat input capacity: 5.00 million British thermal units per hour, each;
 - (4) Three (3) door heaters, identified as DH-1, DH-2, and DH-3, constructed in 1995, heat input capacity: 0.990 million British thermal units per hour, each;
 - (5) One (1) unit heater, identified as UH-1, constructed in 1995, exhausting through Stack UH-1, heat input capacity: 0.080 million British thermal units per hour;
 - (6) One (1) landa wash booth heater, identified as WB-1, constructed in 1995, exhausting through Stack WB-1, heat input capacity: 0.350 million British thermal units per hour; and
 - (7) One (1) office space heater, identified as OHU #1, constructed in 1998, exhausting through Stack OHU #1, heat input capacity: 0.080 million British thermal units per hour.
- (h) Eight (8) metal inert gas (MIG) welding stations consisting of the following:
- (1) Two (2) MIG welding stations, identified as WS-2 and WS-6, constructed in 1978, using 4043, 316LHS, or BR-3 welding wire, capacity: 3.00 pounds of welding wire per hour, each;
 - (2) Two (2) MIG welding stations, identified as WS-1 and WS-7, constructed in 1995, using 4043, 316LHS, or BR-3 welding wire, capacity: 3.00 pounds of welding wire per hour, each;
 - (3) One (1) MIG welding station, identified as WS-3, constructed in 1996, using 4043, 316LHS, or BR-3 welding wire, capacity: 3.00 pounds of welding wire per hour;
 - (4) Two (2) MIG welding stations, identified as WS-4 and WS-5, constructed in 1998, using 4043, 316LHS, or BR-3 welding wire, capacity 3.00 pounds of welding wire per hour, each; and
 - (5) One (1) MIG welding station, identified as WS-4030, constructed in 1995, using 4043, 316LHS, or BR-3 welding wire, capacity 3.00 pounds of welding wire per hour.
- (i) Two (2) oxyacetylene flame cutting stations, identified as AO-1 and AO-2, with a rate of thirty (30) inches per minute at a 3/8 inch thickness (formerly insignificant activities in FESOP 075-8564-00018, issued on September 26, 1997).
- (j) Five (5) spot welders, consisting of one (1) spot welding station, identified as SPW-4, constructed in 1975 and four (4) spot welding stations, identified as SPW-1, SPW-2,

SPW-3, and SPW-5, constructed in 1996, emitting less than 0.551 pounds of particulate per hour, total.

- (k) One (1) MG Hydefinition machine (plasma cutter), identified as MG-1, equipped with a dust collector with ultra web filter for particulate control, exhausting inside, cuts at 80 inches per minute on 16 gauge hot rolled steel material to 20 inches per minute on 1/4 inch hot rolled steel.
- (l) One (1) portable plasma cutter, exhausting inside, cuts at 12 inches per minute on 3/8 inch hot rolled steel.
- (m) One (1) fiberglass press operation, identified as SMC-1, capacity 10,279 pounds of styrene composite material per year.

Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit

The source also consists of the following emission units that were constructed and are operating without a permit:

- (a) Two (2) air make-up units (process heaters), identified as AMU #8 and AMU #9, constructed in 2007, heat input capacity of 2.9 million British thermal units per hour, each.

Pursuant to 326 IAC 2-1.1-3 (e) (5), the Permittee is exempt from the requirement to obtain prior approval to construct and/or operate process heaters that have a heat input capacity less than or equal to ten (10) million British thermal units per hour.

Existing Approvals

The source has constructed or has been operating under the following approval:

- (a) MSOP 075-14982-00018, issued on April 1, 2003.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations (pages 1 - 11).

County Attainment Status

The source is located in Jay County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM2.5.	

(a) Ozone Standards

- (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
- (2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, St. Joseph as attainment for the 8-hour ozone standard.
- (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.
- (4) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Jay County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Jay County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.

(b) Other Criteria Pollutants

Jay County has been classified as attainment or unclassifiable in Indiana all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	95.57
PM ₁₀	80.24
SO ₂	0.06
VOC	18.94
CO	8.39
NO _x	9.99

HAPs	Potential To Emit (tons/year)
Xylene	0.73
Glycol Ethers	3.00
Methyl Methacrylate	0.20
Triethylamine	1.02
Styrene	3.91
Antimony	0.11
Formaldehyde	0.01
Hexane	0.18
Chromium	0.11
Manganese	0.28
Nickel	0.12
Worst Case Total	9.66

- (a) The potential to emit as defined in 326 IAC 2-1.1-1(16) of PM and PM₁₀ is each greater than 25 tons per year. The potential to emit of all other criteria pollutants is less than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1 and will be issued an MSOP.
- (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/or the potential to emit of any combination of HAPs is less than twenty-five (25) tons per year.

The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-6.1 (Minor Source Operating Permits) applicability.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) [326 IAC 12 and 40 CFR Part 60] included in the permit for this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) [326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR Part 63] applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements)

This existing stationary source is not major for PSD because the emissions of each criteria pollutant are less than one hundred (<250) tons per year, and it is not one of the twenty-eight (28) listed source categories.

326 IAC 2-6 (Emission Reporting)

This source is located in Jay County and the potential to emit of each criteria pollutant is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), 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 2-4.1 (Major Sources of Hazardous Air Pollutants)

The operation of Hartzell Fan, Inc. in Jay County will emit less than 10 tons per year of a single HAP and less than 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

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

- (a) Pursuant to 326 IAC 6-3-2(d), particulate from each of the paint booths (P-1 and P-2) and each of the fiberglass spray booths (G-1 and G-2) shall be controlled by a dry particulate filter, waterwash or an equivalent control device, and the Permittee shall operate the control device in accordance with manufacturer's specifications. 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.
- (b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emission rate from the two (2) fiberglass sanding booths, identified as 95-S-1 and 95-S-2, shall each not exceed 0.551 pounds per hour each when operating at a process weight rate of less than 100 pounds per hour. The ultra web filters shall be in operation at all times the two (2) fiberglass sanding booths are in operation, in order to comply with this limit. The potential particulate emission rate after controls at the two (2) fiberglass sawing stations is 0.000006 pounds per hour each. Therefore, the two (2) fiberglass sanding stations are able to comply with this limit.

(c) Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from the:

- (1) one (1) fiberglass sawing station, identified as FG-Saw, shall not exceed 1.15 pounds per hour when operating at a process weight rate of 300 pounds (0.150 tons) per hour.

The dry filters shall be in operation at all times the one (1) fiberglass sawing station is in operation, in order to comply with this limit. The potential particulate emission rate after controls at the one (1) fiberglass sawing station is 0.242 pounds per hour. Therefore, the one (1) fiberglass sawing station (FG-Saw) is able to comply with this limit.

- (2) one (1) pneumatic blasting facility, identified as AB-1, constructed in 2000, shall not exceed 3.77 pounds per hour each when operating at a process weight rate of 1,764 pounds (0.882 tons) per hour.

At least one (1) of the two (2) baghouses, identified as DFT3-24 and RPH3, shall be in operation at all times; the one (1) pneumatic blasting facility, identified as AB-1, is in operation, in order to comply with this limit. The potential particulate emission rate after controls at the one (1) pneumatic blasting facility is 0.066 pounds per hour. Therefore, the one (1) pneumatic blasting facility (AB-1) is able to comply with this limit.

- (3) one (1) pneumatic blasting facility, identified as Cabinet Blaster, shall not exceed 1.62 pounds per hour each when operating at a process weight rate of 501 pounds (0.2505 tons) per hour.

The baghouse, identified as CB-1, shall be in operation at all times the one (1) pneumatic blasting facility, identified as Cabinet Blaster, is in operation, in order to comply with this limit. The potential particulate emission rate after controls at the one (1) pneumatic blasting facility is 0.012 pounds per hour. Therefore, the one (1) pneumatic blasting facility (Cabinet Blaster) is able to comply with this limit.

These limitations are based upon the following:

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

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

- (d) Pursuant to 326 IAC 6-3-1(b)(9), the eight (8) metal inert gas (MIG) welding stations, identified as WS-1 through WS-7 and WS-4030, are not subject to the requirements of 326 IAC 6-3-2, because a total of less than 625 pounds of rod or wire per hour is consumed by those stations.
- (e) Pursuant to 326 IAC 6-3-1(b)(10), the two (2) oxyacetylene flame cutting stations, identified as AO-1 and AO-2, are not subject to the requirements of 326 IAC 6-3-2, because those stations cut less than 3,400 inches per hour of stock less than one (1) inch thick.
- (f) Pursuant to 326 IAC 6-3-1(b)(14), the five (5) spot welding stations, identified as SPW-1 through SPW-5, are not subject to the requirements of 326 IAC 6-3-2, because potential particulate emissions from the five (5) spot welding stations are less than a total of 0.551 pounds per hour.

- (g) Pursuant to 326 IAC 6-3-1(b)(14), the one (1) MG Hydefinition machine (plasma cutter) and the one (1) portable plasma cutter are not subject to the requirements of 326 IAC 6-3-2, because potential particulate emissions from the plasma cutter are less 0.551 pounds per hour each.

326 IAC 8-1-6 (Organic Solvent Emission Limitations)

- (a) Pursuant to 326 IAC 8-1-6, the potential to emit VOC from the two (2) fiberglass spray booths, identified as G-1 and G-2, constructed in 1976, is less than twenty-five (25) tons per year. Therefore since the booths predate the January 1, 1980 applicability date, the requirements of 326 IAC 8-1-6 are not applicable.
- (b) Any reconstruction that increases the potential to emit VOC from the two (2) fiberglass spray booths, identified as G-1 and G-2, to greater than or equal to twenty-five (25) tons per year, may render the requirements of 326 IAC 8-1-6 applicable and require prior IDEM, OAQ approval.

326 IAC 8-1 (Volatile Organic Compound (VOC) Rules)

The potential to emit of the two (2) paint booths, identified as P-1 and P-2, constructed in 1975, located in Jay County, is less than twenty-five (25) tons per year total. However, pursuant to Condition D.1.9 of F 075-8564-00018, issued on September 26, 1997 the two (2) paint booths were subject to the requirements 326 IAC 8-2-9 for the surface coating of metal fan parts.

Pursuant to 326 IAC 8-1-1(b), facilities that are subject to an article in an enforceable permit shall continue to be subject that rule, unless the potential to emit from that facility is limited to less than fifteen (15) pounds of VOC per day. As a result, Hartzell Fan, Inc. has elected to remain subject to the requirements of 326 IAC 8-2-9 for the operation of the two (2) paint booths.

Therefore, pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) the following requirements apply to the two (2) paint booths:

- (a) Pursuant to 326 IAC 8-2-9(d) this source may not cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of the following while the two (2) paint booths, identified as P-1 and P-2, are in operation:
- Forty-two hundredths (0.42) kilograms per liter (three and five-tenths (3.5) pounds per gallon) of coating, excluding water, is delivered to a coating applicator that applies air dried or forced warm air dried. Air dried or forced warm air dried coatings are coatings designed for exposure to temperatures consistently above ninety-five degrees Celsius (90EC) (one hundred ninety-four degrees Fahrenheit (194EF)).
- (b) Pursuant to 326 IAC 8-2-9(f), 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 MSDS submitted by the source for Thinner T-10 used for the cleanup and the potential to emit calculations, the two (2) paint booths, identified as P-1 and P-2, are not in compliance with this requirement. The source shall comply with this rule by calculating the daily volume weighted average of VOC content for the two (2) paint booths, identified as P-1 and P-2, using the following equation:

$$A = [\sum C \times U] / \sum U$$

Where: A is the volume weighted average in pounds VOC per gallon less water as applied;

C is the VOC content of the coating in pounds VOC per gallon less water as applied; and

U is the usage rate of the coating in gallons per day.

326 IAC 8-6 (Organic Solvent Emission Limitations)

Although this source commenced operation after October 7, 1974 and prior to January 1, 1980, the potential to emit VOC is less than one hundred (100) tons per year. Therefore, the requirements of 326 IAC 8-6 are not applicable.

326 IAC 20-25 (Emissions from Reinforced Plastics Composites Fabricating Emission Units)

This source does not have the potential to emit of any single hazardous air pollutant (HAP) greater than ten (10) tons per year and any combination of HAPs greater than twenty-five tons per year. Therefore, the requirements of 326 IAC 20-25 are not applicable.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-6.1 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-6.1. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements 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.

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

Recommendation

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

- (a) Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.
- (b) An application for the purposes of this review was received on January 16, 2008. Additional information regarding the two new process heaters, identified as AMU #8 and AMU #9, was received on January 24, 2008.

Conclusion

The operation of this stationary fan and blower manufacturing source shall be subject to the conditions of the attached Minor Source Operating Permit Renewal No. 075-25910-00018. This MSOP will supersede MSOP 075-14982-00018 issued on April 1, 2003.

**Appendix A: Emissions Calculations
Summary Calculations**

Company Name: Hartzell Fan, Inc.
Address City IN Zip: 1700 North Meridian Street, Portland, Indiana 47317-1206
MSOP: 075-25910-00018
Reviewer: Christine Filutze
Date: February 28, 2008

Potential to Emit Before Controls (tons/yr)

Process	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	Single HAP Worst Case	Total HAPs Worst Case
Paint Booths P1 & P2	5.43	5.43		14.50				9.66 (Total)
Fiberglass Spray Booths G1 & G2	17.30	17.30		3.89			3.91 (Styrene)	
Fiberglass Sand	5.26	5.26						
Fiberglass Saw	10.60	10.60						
Pneumatic Blasting AB-1	37.80	26.50						
Cabinet Blaster	15.50	10.90						
Natural Gas	0.19	0.76	0.06	0.55	8.39	9.99		
Welding (PM=PM ₁₀)	3.49	3.49						
Totals	95.57	80.24	0.06	18.94	8.39	9.99		

Potential to Emit After Controls (tons/yr)

Process	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	Single HAP Worst Case	Total HAPs Worst Case
Paint Booths P1 & P2	0.08	0.08		14.50				9.55 (Total)
Fiberglass Spray Booths G1 & G2	0.26	0.26		3.89			3.91 (Styrene)	
Fiberglass Sand	5.30E-05	5.30E-05						
Fiberglass Saw	0.11	0.11						
Pneumatic Blasting AB-1	0.06	0.04						
Cabinet Blaster	0.31	0.22						
Natural Gas	0.19	0.76	0.06	0.55	8.39	9.99		
Welding (PM=PM ₁₀)	3.49	3.49						
Totals	4.49	4.95	0.06	18.94	8.39	9.99		

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

**Company Name: Hartzell Fan, Inc.
Address City IN Zip: 1700 North Meridian Street, Portland, Indiana 47317-1206
MSOP: 075-25910-00018
Reviewer: Christine Filutze
Date: February 28, 2008**

Substrate: Metal Fan Parts

Material	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/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 (tons/yr)	lbs VOC/gal solids	Transfer Efficiency
Paint Booths P-1 & P-2																
Egyptian EQA-L354	9.90	67.60%	57.6%	10.0%	61.4%	25.00%	0.500	2.00	2.56	0.99	0.99	23.8	4.34	3.51	3.96	75%
Sher Kem Aqua 280	6.93	63.00%	44.0%	19.0%	47.0%	29.00%	0.500	2.00	2.48	1.32	1.32	31.6	5.77	2.81	4.54	75%
Sher Will Dura Pox (As Mixed)	11.44	37.10%	27.4%	9.7%	45.0%	40.60%	0.236	2.00	2.02	1.11	0.52	12.57	2.29	3.72	2.73	75%
Thinner T-10	6.93	100.00%	0.0%	100.0%	0.0%	0.00%	0.030	2.00	6.93	6.93	0.42	9.98	1.82	0.00	N/A	75%
Sher Will B54 VOC Compliant	8.26	40.00%	0.0%	40.0%	0.0%	49.90%	0.500	2.00	3.30	3.30	3.30	79.3	14.5	5.43	6.62	75%

PM Control Efficiency 98.5%

State Potential Emissions

Add worst case coating to all solvents

"Worst Case" Uncontrolled	3.30	79.3	14.5	5.43
"Worst Case" Controlled (control efficiency 98.5%)	3.30	79.3	14.5	0.081

METHODOLOGY

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

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

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

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

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/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: Hartzell Fan, Inc.
Address City IN Zip: 1700 North Meridian Street, Portland, Indiana 47317-1206
MSOP: 075-25910-00018
Reviewer: Christine Filutze
Date: February 28, 2008**

Material	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Glycol Ethers	Weight % Methyl Methacrylate	Weight % Triethylamine	Xylene Emissions (tons/yr)	Glycol Ethers Emissions (tons/yr)	Methyl Methacrylate Emission (tons/yr)	Triethylamine Emissions (tons/yr)
Paint Booths P-1 & P-2											
Egyptian EQA-L354	9.90	0.500	2.00	0.00%	6.92%	0.00%	0.00%	0.00	3.00	0.000	0.00
Sher Will Kem Aqua 280	8.93	0.500	2.00	0.00%	0.00%	0.50%	2.60%	0.00	0.00	0.196	1.02
Shir Will Dura Pox	10.43	0.236	2.00	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.000	0.00
Shir Will Dura Pox	8.82	0.236	2.00	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.000	0.00
Thinner T-10	6.93	0.030	2.00	40.00%	0.00%	0.00%	0.00%	0.728	0.00	0.000	0.00
Sher Will B54 VOC Compliant	8.26	0.500	2.00	0.00%	2.00%	2.00%	2.00%	0.00	0.724	0.000	0.724
"Worst Case" Individual Total								0.728	3.00	0.196	1.02
"Worst Case" Overall Total								3.00			

METHODOLOGY

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

**Appendix A: Fiberglass Sand and Saw Emissions
Particulate Emission Calculations**

**Company Name: Hartzell Fan, Inc.
Address City IN Zip: 1700 North Meridian Street, Portland, Indiana 47317-1206
MSOP: 075-25910-00018
Reviewer: Christine Filutze
Date: February 28, 2008**

Fiberglass Sand:

Number of Sanding Stations	Maximum Sanded (lbs/hr)	Emission Factor (lbs PM/lb sanded)	Potential PM Emissions (lbs/hr)	Potential PM Emissions (tons/yr)	Ultra Web Filter Control Efficiency (tons/yr)	PM Emissions After Controls (tons/yr)
2.000	60.000	0.010	1.200	5.256	0.99999	0.000053

Fiberglass Saw:

Number of Sawing Stations	Dust Collected (tons/yr)	Filter Control Efficiency	Actual PM Emissions before controls (tons/yr)	Actual Operating hours per year	Potential PM Emissions Before Controls (tons/yr)	Dry Filter Control Efficiency	PM Emissions After Controls (tons/yr)	Weight % Antimony in fiberglass dust (lbs Antimony/lb PM)	Potential PM Emissions before controls (tons/yr)	Potential Antimony Emissions (tons/yr)
1.00	1.50	0.99	1.52	1250	10.6	0.99	0.106	0.01	10.6	0.106

Totals:

Total Potential PM Emissions (tons/yr)	Total PM Emissions After Controls (tons/yr)	Potential Antimony Emissions After PM Controls (tons/yr)
15.9	0.106	0.001

Methodology:

Fiberglass sand: $PM\ Emissions\ (tons/yr) = \text{number of stations} \times \text{maximum sanded per station (lbs/hr)} \times \text{emission factor computed by the source (lbs PM/lb)} \times 8760/2000.$

Fiberglass saw: $Actual\ PM\ Emission\ before\ controls\ (tons/yr) = \text{dust collected (tons/yr)} / \text{control efficiency};$ $Potential\ PM\ Emission\ (tons/yr) = \text{actual emissions (tons/yr)} \times 8760 / \text{actual operating hours per year}$

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

Company Name: Hartzell Fan, Inc.
Address City IN Zip: 1700 North Meridian Street, Portland, Indiana 47317-1206
MSOP: 075-25910-00018
Reviewer: Christine Filutze
Date: February 28, 2008

One (1) enclosed pneumatic blasting facility (AB-1)

Table 1 - Emission Factors for Abrasives

Abrasive	Emission Factor	
	lb PM / lb abrasive	lb PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	

Calculations

Flow Rate (FR) of brown fused aluminum oxide provided by the source (lb/hr) = 864 per nozzle

Uncontrolled Emissions (E, lb/hr)

EF = emission factor (lb PM/ lb abrasive) From Table 1 = 0.010

FR = Flow Rate (lb/hr) = 864

w = fraction of time of wet blasting = 0

N = number of nozzles = 1

Uncontrolled PM Emissions =	8.64 lb/hr
	37.8 ton/yr

Uncontrolled PM10 Emissions =	6.05 lb/hr
	26.5 ton/yr

Minimum Control Efficiency 99.85%

Controlled PM Emissions =	0.013 lb/hr
	0.057 ton/yr

Controlled PM10 Emissions =	0.009 lb/hr
	0.040 ton/yr

METHODOLOGY

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

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

Flow Rate (FR) (lb/hr) = Flow Rate Provided by the Source

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

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

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

Company Name: Hartzell Fan, Inc.
Address City IN Zip: 1700 North Meridian Street, Portland, Indiana 47317-1206
MSOP: 075-25910-00018
Reviewer: Christine Filutze
Date: February 28, 2008

One (1) enclosed pneumatic blasting facility (Cabinet Blaster)

Table 1 - Emission Factors for Abrasives

Abrasive	Emission Factor	
	lb PM / lb abrasive	lb PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	

Calculations

Flow Rate (FR) of brown fused aluminum oxide provided by the source (lb/hr) = per nozzle

Uncontrolled Emissions (E, lb/hr)

EF = emission factor (lb PM/ lb abrasive) From Table 1 =

FR = Flow Rate (lb/hr) =

w = fraction of time of wet blasting =

N = number of nozzles =

Uncontrolled PM Emissions =	3.54 lb/hr
	15.5 ton/yr

Uncontrolled PM10 Emissions =	2.48 lb/hr
	10.9 ton/yr

Minimum Control Efficiency 98.00%

Controlled PM Emissions =	0.071 lb/hr
	0.310 ton/yr

Controlled PM10 Emissions =	0.050 lb/hr
	0.217 ton/yr

METHODOLOGY

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

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

Flow Rate (FR) (lb/hr) = Flow Rate Provided by the Source

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

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

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

Company Name: Hartzell Fan, Inc.
Address City IN Zip: 1700 North Meridian Street, Portland, Indiana 47317-1206
MSOP: 075-25910-00018
Reviewer: Christine Filutze
Date: February 28, 2008

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
22.8	200

Source-wide natural gas-fired combustion

Two (2) testing stations @ 1.00 MMBtu/hr, total
 One (1) air makeup unit @ 2.50 MMBtu/hr
 Two (2) air makeup units @ 5.00 MMBtu/hr, each
 Two (2) air makeup units @ 2.90 MMBtu/hr, each
 Three (3) door heaters @ 0.990 MMBtu/hr, each
 One (1) unit heater @ 0.080 MMBtu/hr, each
 One (1) landa wash booth heater @ 0.350 MMBtu/hr
 One (1) office space heat @ 0.080 MMBtu/hr

	Pollutant					
Emission Factor in lb/MMCF	PM*	PM10*	SO2	NOx	VOC	CO
	1.90	7.60	0.600	100	5.50	84.0
				**see below		
Potential Emission in tons/yr	0.190	0.759	0.060	9.99	0.549	8.39

*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

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used.

(i.e., condensable included/not included)

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

**Company Name: Hartzell Fan, Inc.
Address City IN Zip: 1700 North Meridian Street, Portland, Indiana 47317-1206
MSOP: 075-25910-00018
Reviewer: Christine Filutze
Date: February 28, 2008**

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	0.0000	0.0000	0.000	0.000	0.0000

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total HAPs
Potential Emission in tons/yr	0.00000	0.0000	0.0000	0.00000	0.0000	0.000

Methodology is the same as page 7.

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

Source-wide natural gas-fired combustion

- Two (2) testing stations @ 1.00 MMBtu/hr, total
- One (1) air makeup unit @ 2.50 MMBtu/hr
- Two (2) air makeup units @ 5.00 MMBtu/hr, each
- Two (2) air makeup units @ 2.90 MMBtu/hr, each
- Three (3) door heaters @ 0.990 MMBtu/hr, each
- One (1) unit heater @ 0.080 MMBtu/hr, each
- One (1) landa wash booth heater @ 0.350 MMBtu/hr
- One (1) office space heat @ 0.080 MMBtu/hr

Company Name: Hartzell Fan, Inc.
 Address City IN Zip: 1700 North Meridian Street, Portland, Indiana 47317-1206
 MSOP: 075-25910-00018
 Reviewer: Christine Filutze
 Date: February 28, 2008

Eight (8) metal inert gas (MIG) welding stations and two (2) flame cutting stations

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS * (lb pollutant / lb electrode)				EMISSIONS (lb/hr)				TOTAL HAPs (lb/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
WELDING												
Metal Inert Gas (MIG)(4043)	8.00	3.00		0.0241	0.00003		0.00001	0.578	0.001	0.00	0.0002	0.001
Metal Inert Gas (MIG)(316LHS)	8.00	3.00		0.0032	0.00008	0.001184	0.001024	0.077	0.002	0.028	0.025	0.055
Metal Inert Gas (MIG)(BR-3)	8.00	3.00		0.0052	0.0026			0.125	0.062	0.00	0.00	0.062
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)				TOTAL HAPs (lb/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Oxyacetylene	2.00	0.375	30.0	0.162	0.0005	0.0001	0.0003	0.219	0.0007	0.0001	0.0004	0.001
EMISSION TOTALS								PM = PM10	Mn	Ni	Cr	Total HAPs
Worst Case Potential Emissions lbs/hr								0.797	0.063	0.029	0.025	0.064
Worst Case Potential Emissions lbs/day								19.1	1.51	0.685	0.600	1.53
Worst Case Potential Emissions tons/year								3.49	0.276	0.125	0.109	0.279

Note that the default PM/PM10 Emission Factor was used for 4043, the AP-42 PM/PM10 Emission Factor for ER316 was used for 316LHS, and the AP-42 PM/PM10 Emission Factor for ER70S was used for BR-3.

The PM/PM10 Emission Factors were used based on the classification in the welding wire MSDSs as provided by the source.

The HAPs for the MIG Welding stations were based on the weight % of each HAP as stated in the MSDSs.

The Potential to Emit from the three (3) MIG welding stations is based on the "worst case" potential to emit of each pollutant.

Only one (1) type wire can be used in the MIG welding stations at a time

METHODOLOGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column. Consult AP-42 or other reference for different electrode types.

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

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)

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

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

Plasma cutting emission factors are from the American Welding Society study published in Sweden (March 1994).

Welding and other flame cutting emission factors are from an internal training session document.

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

**Appendix A: Emissions Calculations
From Fiberglass Press Operations**

Company Name: Hartzell Fan, Inc.
Address City IN Zip: 1700 North Meridian Street, Portland, Indiana 47317-1206
MSOP: 075-25910-00018
Reviewer: Christine Filutze
Date: February 28, 2008

One (1) fiberglass press operation (SMC Press)

Potential Styrene Composite Material Usage (lbs/yr)	Percentage of Styrene in the Composite Material Used	Emission Factor (lbs of Styrene / lb of Material)	Potential to Emit Styrene (lbs/yr)	Potential to Emit Styrene (tons/yr)
10279	18.0%	0.020	37.0	0.019

Methodology

Potential Styrene Composite Material Usage in lbs/yr x Percentage Styrene in the Composite Material x Emission Factor in lbs of styrene / lb of material = Potential to Emit Styrene in lbs/yr x 2000 lbs/ton = Potential to Emit Styrene in tons/yr

Note that Styrene Emissions for this emission unit will also be counted as VOC in emission calculations