



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center  
50 West Town Street, Suite 700  
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

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Lazarus Gov. Center  
P.O. Box 1049  
Columbus, OH 43216-1049

**RE: FINAL PERMIT TO INSTALL  
FRANKLIN COUNTY  
Application No: 01-12126  
Fac ID: 0125102368**

**DATE: 6/14/2007**

HFI, Inc.  
Larry Barth  
5795 Green Pointe Drive S  
Groveport, OH 43125

**CERTIFIED MAIL**

|   |                              |
|---|------------------------------|
| Y | TOXIC REVIEW                 |
|   | PSD                          |
| Y | SYNTHETIC MINOR              |
|   | CEMS                         |
|   | MACT                         |
|   | NSPS                         |
|   | NESHAPS                      |
|   | NETTING                      |
|   | MAJOR NON-ATTAINMENT         |
| Y | MODELING SUBMITTED           |
|   | GASOLINE DISPENSING FACILITY |

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
309 South Fourth Street, Room 222  
Columbus, OH 43215

Sincerely,

*Michael W. Ahern* 

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section  
Division of Air Pollution Control

CC: USEPA

CDO



Permit To Install  
Terms and Conditions

Issue Date: 6/14/2007  
Effective Date: 6/14/2007

**FINAL PERMIT TO INSTALL 01-12126**

Application Number: 01-12126

Facility ID: 0125102368

Permit Fee: **\$300**

Name of Facility: HFI, Inc.

Person to Contact: Larry Barth

Address: 5795 Green Pointe Drive S  
Groveport, OH 43125

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**5795 Greenpointe Road S**  
**Groveport, Ohio**

Description of proposed emissions unit(s):  
**Adhesive spray booth #4 and #5 with electric oven (plastic parts).**

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski  
Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. Permit to Install General Terms and Conditions

#### 1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

#### 2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

#### 3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

#### 4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air

contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**5. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

**6. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**7. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

**8. Termination of Permit to Install**

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

**9. Construction of New Sources(s)**

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental

Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

**10. Public Disclosure**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

**11. Applicability**

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

**12. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

**13. Source Operation and Operating Permit Requirements After Completion of Construction**

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

**14. Construction Compliance Certification**

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

**15. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

**B. Permit to Install Summary of Allowable Emissions**

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)  
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

| <u>Pollutant</u> | <u>Tons Per Year</u> |
|------------------|----------------------|
| OC               | 49.35                |
| IHAP             | 9.9                  |
| THAP             | 24.9                 |

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

**Operations, Property, and/or Equipment - (R003) - Adhesive spray booth 3 with electric oven for plastics parts coating (Modification of PTI 01-06885 issued May 7, 2002)**

| Applicable Rules/Requirements   | Applicable Emissions Limitations/Control Measures  |
|---|--|
| OAC rule 3745-31-05(A)(3)   | Organic compound (OC) emissions from this emissions unit shall not exceed 16.23 lbs OC/hr, excluding cleanup solvent usage.<br><br>See sections A.2.a, A.2.b and B.1 below.<br><br>The requirements of this rule also include compliance with the requirements of OAC 3745-21-07(G)(2) and rule 3745-31-05(C). |
| OAC rule 3745-21-07(G)(2)   | See section A.2.a, below.  |
| OAC rule 3745-31-05(C)<br>(synthetic minor to avoid Title V and MACT) | The OC emissions from all materials employed in emissions units shall not exceed 10 tons per rolling, 12- month period, including cleanup solvent usage .<br><br>See sections A.2.c and B.1 below.   |
| ORC 3704.03(T)(4)   | See section A.2.d below.   |
| OAC rule 3745-17-07(A)(1)(b)  | See sections A.2.e and B.2 below.  |
| OAC rule 3745-17-11(A)(2)   | Particulate emissions (PE) shall not exceed 0.551 lbs/hr.  |

**2. Additional Terms and Conditions**

- 2.a To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

**2.b** The 16.23 lbs OC/hr emissions limitation was established to reflect the potential to emit of this emission unit. The hourly emission limitation is based upon a "worse case" adhesive formulation derived from calculations in the applicant's air permit to install application. Therefore, compliance with the hourly and annual emission limitation is assumed as long as the permittee does not exceed the operational restrictions in this permit.

**2.c** Facility-wide emissions shall not exceed 49.35 tons of OC, 9.9 tons of individual hazardous air pollutant (HAP) emissions and 24.9 tons of total combined HAP emissions per rolling, 12-month period.

Facility-wide emissions shall be determined from a summation of monthly emissions from R003 and R004 and all emissions units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05).

Therefore, the provisions for Title V permitting and the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Surface Coating of Plastic Parts and Products (40 CFR part 63, subpart PPPP) will not be applicable.

<sup>1</sup>A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact.

**2.d** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions (PE) from this air contaminant source since the potential to emit for PE is less than 10 tons per year.

**2.e** Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

## **B. Operational Restrictions**

1. The operational restrictions on the facility-wide potential to emit for individual HAP, combined HAP and OC emissions for emissions unit R003 that establish federally enforceable limitations are as follows:
  - a. the permittee shall not employ more than 3,600 gallons of adhesive in this spray booth based upon a rolling, 12-month summation of usage; and
  - b. the OC content of adhesives employed in this booth shall not exceed 5.41 lbs OC/gallon and 1.02 lbs hexane/gallon.
2. The permittee shall maintain daily records that document any time periods when the dry filtration system was not in service when the emissions unit was in operation.

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**HFI, Inc.**

**PTI Application: 01-12126**

**Issued: 6/14/2007**

**Facility ID: 0125102368**

**Emissions Unit ID: R003**

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information for booth 3 (R003) for each month during which adhesives are applied:
  - a. the company identification for each coating and cleanup material employed and whether or not the material is a photochemically reactive material;
  - b. the number of gallons of each coating and cleanup material employed in the booth;
  - c. the OC and HAP content of each coating and cleanup material, in pounds per gallon;
  - d. the total OC emission rate for all coatings and cleanup material, in pounds;
  - e. the total HAP emission rate for all coatings and cleanup material, in pounds;
  - f. the rolling, 12-month summation of adhesive usages, in gallons; and
  - g. the rolling, 12-month summation of OC emissions (i.e., the OC emissions from the current month added to the summation of the OC emissions from the previous 11 months).

[Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit.]

2. The permittee shall collect and record the following information during each month for the purpose of determining annual OC and HAP emissions from emissions units R003, R004 and exempt and de minimus emissions unit:
  - a. the monthly OC and HAP emission rate for all coatings and cleanup materials, in pounds from each of the above emissions units;
  - b. the rolling, 12-month summation of OC emissions (i.e., the OC emissions from the current month added to the summation of the OC emissions from the previous 11 months) for all of the above emissions units;
  - c. the calculated individual HAP emission for the current month, in pounds or tons, for each of the above emissions units;
  - d. the calculated total HAP emissions for the current month, in pounds or tons, for each the above emissions units;
  - e. the rolling 12-month summation of individual HAP emissions (i.e., the individual HAP emissions from the current month added to the summation of the individual HAP emissions from the previous 11 months) for all the above emissions units; and

- f. the rolling 12-month summation of total combined HAP emissions (i.e., the total combined HAP emissions from the current month added to the summation of the total combined HAP emissions from the previous 11 months) for all of the above emissions units.
3. The permit to install for emissions units R003 and R004 was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: MEK

TLV (mg/m<sup>3</sup>): 590

Maximum Hourly Emission Rate (lbs/hr): 8 lbs/hr

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 1,317

MAGLC (ug/m<sup>3</sup>): 14,047

Pollutant: Hexane

TLV (mg/m<sup>3</sup>): 180

Maximum Hourly Emission Rate (lbs/hr): 3.1 lbs/hr

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 507

MAGLC (ug/m<sup>3</sup>): .4,285

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
4. The permittee shall maintain daily records that document any time periods when the dry filtration system was not in service when the emissions unit was in operation.

#### **D. Reporting Requirements**

1. The permittee shall submit quarterly exceedance reports to the CDO which document any exceedance of the operational restriction set forth in terms A.2.c and B.1 for the previous three calendar months (January 1 through March 31, April 1 through June 30, July 1 through September 30, and October 1 through December 31).

The reports shall be submitted by April 15, July 15, October 15, and February 15 of each year and shall provide a summary of the record keeping required by terms C.1, C.2, and C.3 for each reported exceedance.

2. The permittee shall submit a quarterly deviation (excursion) report for all periods of time during which the emissions unit was operated while the dry filter system was not in

operation, as specified in section A.2.b above, and any actions taken to return the to a compliant operation.

## E. Testing Requirements

1. Compliance with the emission limitation shall be determined in accordance with the following methods:

a. Emissions Limitation

OC emissions shall not exceed 16.23 lbs/hr, excluding cleanup solvent usage

Applicable Compliance Method

The hourly emission rate was derived from the maximum adhesive application rate and adhesive solvent content as follows:  $3 \text{ gal/hr} * 5.41 \text{ lbs OC/gal} = 16.23 \text{ lbs OC/hr}$

b. Emissions Limitation:

The permittee shall not employ more than 3,600 gallons of adhesive in this spray booth based upon a rolling, 12-month summation of usage

Applicable Compliance Method:

Compliance shall be demonstrated by record keeping in section C.1.b, above.

c. Emissions Limitation:

The OC content of adhesives employed in this booth shall not exceed 5.41 lbs OC/gallon and 1.02 lbs hexane/gallon.

Applicable Compliance Method:

Compliance shall be demonstrated by record keeping in section C.1.c, above.

d. Emissions Limitation

The OC emissions from all materials employed in emissions units shall not exceed 10 tons per rolling, 12-month period.

Applicable Compliance Method

Compliance shall be demonstrated by record keeping in section C.1.f, above.

e. Emissions Limitation

Facility-wide emissions shall not exceed 49.35 tons of OC per year, based upon a rolling, 12-month summation of the monthly emissions.

Applicable Compliance Method

Compliance shall be demonstrated by record keeping in section C.2.b, above.

- f. Emission Limitation  
Facility-wide emissions shall not exceed 9.9 of an individual HAP and 24.9 tons total combined HAPs per year, based upon a rolling, 12-month summation of the monthly emissions.

Applicable Compliance Method

Compliance shall be demonstrated by record keeping in section C.2.e and C.2.f, above.

- g. Emission Limitation:  
Visible PE from **any** stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

- h. Emission Limitation:  
PE shall not exceed 0.551 lb/hr.

Applicable Compliance Method:

To determine the worst case PE rate, the following equation shall be used:

$$E = \text{maximum coating solids usage rate, in pounds per hour,} \times (1-TE) \times (1-CE)$$

where E = PE rate (lbs/hr);

TE = fractional transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used (0.55); and

CE = fractional control efficiency of the control equipment (0.99).

When requested by the Ohio EPA, the permittee shall demonstrate compliance with the above emissions limitation pursuant to OAC rule 3745-17-03(B)(10).

## F. Miscellaneous Requirements

1. The terms in this permit supercede those identified in PTI 01-6885 issued May 7, 2002.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

**Operations, Property, and/or Equipment - (R004) - Adhesive spray booth 4 with electric oven for plastic parts coating**

| Applicable Rules/Requirements   | Applicable Emissions Limitations/Control Measures   |
|---|---|
| OAC rule 3745-31-05(A)(3)   | Organic compound (OC) emissions from this emissions units shall not exceed 19.94 lbs OC/hr, excluding cleanup solvent usage.<br><br>See sections A.2.a and A.2.b below.<br><br>The requirements of this rule also include compliance with the requirements of OAC 3745-21-07(G)(2) and rule 3745-31-05(C) |
| OAC rule 3745-21-07(G)(2)   | See section A.2.a below.  |
| OAC rule 3745-31-05(C)<br>(synthetic minor to avoid Title V and MACT) | The OC emissions from all materials employed in emissions units shall not exceed 39 tons per rolling, 12- month period, including cleanup solvent usage.<br><br>See sections A.2.c and B.1 below.   |
| ORC 3704.03(T)(4)   | See section A.2.d below.  |
| OAC rule 3745-17-07(A)(1)(b)  | See sections A.2.e and B.2 below.   |
| OAC rule 3745-17-11(A)(2)   | Particulate emissions (PE) shall not exceed 0.551 lbs/hr.   |

**2. Additional Terms and Conditions**

- 2.a To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

**2.b** The 19.94 lbs OC/hr emission limitation was established to reflect the potential to emit of this emission unit. The hourly emission limitation is based upon a "worse case" adhesive formulation derived from calculations in the applicant's air permit to install application. Therefore, compliance with the hourly and annual emission limitation is assumed as long as the permittee does not exceed the operational restrictions in this permit.

**2.c** Facility-wide emissions shall not exceed 49.35 tons of OC, 9.9 tons of individual HAP emissions and 24.9 tons of total combined HAP emissions per rolling, 12-month period.

Facility-wide emissions shall be determined from a summation of monthly emissions from R003 and R004 and all emissions units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05).

Therefore, the provisions for Title V permitting and the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Surface Coating of Plastic Parts and Products (40 CFR part 63, subpart PPPP) will not be applicable.

<sup>1</sup>A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact.

**2.d** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions (PE) from this air contaminant source since the potential to emit for PE is less than 10 tons per year.

**2.e** Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

## **B. Operational Restrictions**

1. The operational restrictions on the facility-wide potential to emit for individual HAP, total combined HAPs and OC that establish federally enforceable limitations for emissions unit R004 are as follows:

- a. the permittee shall not employ more than 14,000 gallons of adhesive in this spray booth, based on a rolling, 12-month summation;
- b. the OC content of adhesives employed in this booth shall not exceed 5.54 lbs OC/gallon and 1.07 lbs hexane/gallon; and
- c. the permittee shall not employ more than 48 gallons of xylene solvent in this booth, based on a rolling, 12-month summation.

2. The permittee shall operate the dry filtration system for control of particulate emissions whenever this emissions unit is in operation.

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information for booth 4 (R004) for each month during which adhesives are applied:
  - a. the company identification for each coating and cleanup material employed and whether or not the material is a photochemically reactive material;
  - b. the number of gallons of each coating and cleanup material employed in the booth;
  - c. the OC and HAP content of each coating and cleanup material, in pounds per gallon;
  - d. the total OC emission rate for all coatings and cleanup material, in pounds;
  - e. the total HAP emission rate for all coatings and cleanup material, in pounds;
  - f. the rolling, 12-month summation of adhesive usages, in gallons; and
  - g. the rolling, 12-month summation of OC emissions (i.e., the OC emissions from the current month added to the summation of the OC emissions from the previous 11 months).

[Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit.]

2. The permittee shall collect and record the following information during each month for the purpose of determining annual OC and HAP emissions from emissions units R003, R004 and exempt and de minimus emissions unit:
  - a. the monthly OC and HAP emission rate for all coatings and cleanup materials, in pounds from each of the above emissions units;
  - b. the rolling, 12-month summation of OC emissions (i.e., the OC emissions from the current month added to the summation of the OC emissions from the previous 11 months) for all of the above emissions units;
  - c. the calculated individual HAP emission for the current month, in pounds or tons, for each of the above emissions units;
  - d. the calculated total HAP emissions for the current month, in pounds or tons, for each the above emissions units;

- e. the rolling 12-month summation of individual HAP emissions (i.e., the individual HAP emissions from the current month added to the summation of the individual HAP emissions from the previous 11 months) for all the above emissions units; and
  - f. the rolling 12-month summation of total combined HAP emissions (i.e., the total combined HAP emissions from the current month added to the summation of the total combined HAP emissions from the previous 11 months) for all of the above emissions units.
3. The permit to install for emissions units R003 and R004 was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: MEK

TLV (mg/m3): 590

Maximum Hourly Emission Rate (lbs/hr): 4.9 lbs/hr

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 645

MAGLC (ug/m3): 14,047

Pollutant: Hexane

TLV (mg/m3): 180

Maximum Hourly Emission Rate (lbs/hr): 3.8 lbs/hr

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 509

MAGLC (ug/m3): .4,285

Pollutant: Toluene

TLV (mg/m3): 188

Maximum Hourly Emission Rate (lbs/hr): 3.8 lbs/hr

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 509

MAGLC (ug/m3): .4,476

Pollutant: Methanol

TLV (mg/m3): 260

Maximum Hourly Emission Rate (lbs/hr): 1.5 lbs/hr

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 204

MAGLC (ug/m3): .6,190

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

4. The permittee shall maintain daily records that document any time periods when the dry filtration system was not in service when the emissions unit was in operation.

#### **D. Reporting Requirements**

1. The permittee shall submit quarterly exceedance reports to the Central District Office which document any exceedance of the operational restrictions set forth in terms A.2.c and B.1 for the previous three calendar months (January 1 through March 31, April 1 through June 30, July 1 through September 30, and October 1 through December 31).

The reports shall be submitted by April 15, July 15, October 15, and February 15 of each year and shall provide a summary of the record keeping required by terms C.1, C.2, and C.3 for each reported exceedance.

2. The permittee shall submit a quarterly deviation (excursion) report for all periods of time during which the emissions unit was operated while the dry filter system was not in operation, as specified in section A.2.b above, and any actions taken to return the to a compliant operation.

#### **E. Testing Requirements**

1. Compliance with the emission limitation shall be determined in accordance with the following methods:

- a. Emissions Limitation  
OC emissions shall not exceed 19.94 lbs/hr, excluding cleanup solvent usage

Applicable Compliance Method

The hourly emission rate was derived from the maximum adhesive application rate and adhesive solvent content as follows:  $3.6 \text{ gal/hr} * 5.54 \text{ lbs OC/gal} = 16.23 \text{ lbs OC/hr}$

- b. Emissions Limitation:  
The permittee shall not employ more than 14,600 gallons of adhesive in this spray booth based upon a rolling, 12-month summation of usage

Applicable Compliance Method:

Compliance shall be demonstrated by record keeping in section C.1.b, above.

- c. Emissions Limitation:  
The OC content of adhesives employed in this booth shall not exceed 5.54 lbs OC/gallon and 1.07 lbs hexane/gallon.

Applicable Compliance Method:

Compliance shall be demonstrated by record keeping in section C.1.c, above.

d. Emissions Limitation

The OC emissions from all materials employed in emissions units shall not exceed 39 tons per rolling, 12- month period, including cleanup solvent usage.

Applicable Compliance Method

Compliance shall be demonstrated by record keeping in section C.1.f, above.

e. Emissions Limitation

Facility-wide emissions shall not exceed 49.35 tons of OC per year, based upon a rolling, 12-month summation of the monthly emissions.

Applicable Compliance Method

Compliance shall be demonstrated by record keeping in section C.2.b, above.

f. Emission Limitation

Facility-wide emissions shall not exceed 9.9 of an individual HAP and 24.9 tons total combined HAPs per year, based upon a rolling, 12-month summation of the monthly emissions.

Applicable Compliance Method

Compliance shall be demonstrated by record keeping in section C.2.e and C.2.f, above.

g. Emission Limitation:

Visible PE from **any** stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

If required, compliance with the above visible emission limitation shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

h. Emission Limitation:

PE shall not exceed 0.551 lb/hr.

Applicable Compliance Method:

To determine the worst case PE rate, the following equation shall be used:

$$E = \text{maximum coating solids usage rate, in pounds per hour,} \times (1-TE) \times (1-CE)$$

where E = PE rate (lbs/hr);

TE = fractional transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used (0.55); and

CE = fractional control efficiency of the control equipment (0.99).

When requested by the Ohio EPA, the permittee shall demonstrate compliance with the above emissions limitation pursuant to OAC rule 3745-17-03(B)(10).

**HFI, Inc.**

**PTI Application: 01-12126**

**Issued: 6/14/2007**

**Facility ID: 0125102368**

**Emissions Unit ID: R004**

**F. Miscellaneous Requirements**

None