



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL MODIFICATION  
HAMILTON COUNTY**

**CERTIFIED MAIL**

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:  
Lazarus Gov. Center  
P.O. Box 1049

**Application No: 14-05386**

**Fac ID: 1431070914**

**DATE: 5/18/2006**

Givaudan Flavors Corp  
David Schuster  
110 E 70th Street  
Cincinnati, OH 45216

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 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. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. 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, Ohio 43215

Sincerely,

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

CC: USEPA

HCDES



**Permit To Install  
Terms and Conditions**

**Issue Date: 5/18/2006  
Effective Date: 5/18/2006**

**FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 14-05386**

Application Number: 14-05386  
Facility ID: 1431070914  
Permit Fee: **\$0**  
Name of Facility: Givaudan Flavors Corp  
Person to Contact: David Schuster  
Address: 110 E 70th Street  
Cincinnati, OH 45216

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**110 E 70th Street  
Cincinnati, Ohio**

Description of proposed emissions unit(s):  
**Administrative modification to PTI 14-05386.**

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification 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 source(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 included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

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 quarterly, i.e., 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

**Givaudan Flavors Corp**  
**PTI Application: 14-05386**  
**Modification Issued: 5/18/2006**

**Facility ID: 143107091**

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)**

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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.

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**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>
PE/PM10	2.0
OC	7.1



**Givaudan Flavors Corp**  
**PTI Application: 11 05206**  
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**Facility ID: 143107091**

**Emissions Unit ID: P002**

Applicable Emissions  
Limitations/Control Measures

Particulate emissions\* (PE) and particulate matter emissions ten microns and less in diameter (PM10) from the spray dryer shall not exceed 0.23 pound per hour and 1.0 ton per year.

\* PE = PM10

Organic compound (OC) emissions from the spray dryer shall not exceed 0.81 pound per hour and 3.55 tons per year.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).

Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-02(A)(2).

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-02(A)(2).

**2. Additional Terms and Conditions**

- 2.a** The hourly and annual emission limitations outlined in term A.1. are based upon the emissions unit's potential to emit. Therefore, no hourly or annual records are required to demonstrate compliance with these limits.
- 2.b** Compliance with OAC rule 3745-31-02(A)(2) shall be demonstrated by the use of a scrubber and a panel filter with at least a 97% overall control efficiency for particulate emissions and a thermal oxidizer with at least a 97% control efficiency for organic compound emissions.

**B. Operational Restrictions**

1. The average combustion temperature within the regenerative thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1554 degrees Fahrenheit.
2. The scrubber water flow rate shall be maintained at a value of not less than 500 gallons per minute at all times while the emissions unit is in operation.

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

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be , calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deems necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was less than 1554 degrees Fahrenheit.
  - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
2. The permittee shall properly operate and maintain equipment to continuously monitor

**Givau****PTI A****Modification Issued: 5/18/2006**Emissions Unit ID: **P002**

the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

The permittee shall collect and record the following information each day:

- a. The scrubber water flow rate, in gallons per minute, once each day.
- b. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

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

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in term B.1.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the scrubber flow rate was not maintained at 500 gallons/minute.
3. The deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

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

1. Compliance with the emission limitation in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
0.23 lb/hr PE/PM10  
1.0 TPY PE/PM10

Applicable Compliance Method:

Compliance with the emission limitation shall be determined by multiplying the production rate (150 lb/hr) by the loss factor (0.05) by the control efficiency of the scrubber and panel filter (1-0.97). Annual emissions shall be determined by multiplying the hourly emissions by 8760 hours per year and dividing by 2000 lbs/ton. The emissions factors were provided in PTI application 14-05386

submitted November 27, 2002.

b. Emission Limitation:

0.81 lb/hr OC  
3.55 TPY OC

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by multiplying the emission factor, 27 lbs/hr, by the control efficiency of the thermal oxidizer (1-0.97). Annual emissions shall be determined by multiplying the hourly emissions by 8760 hours per year and dividing by 2000 lbs/ton. The emissions factors were provided in PTI application 14-05386 submitted November 27, 2002.

2. Compliance with the visible particulate emission limitation established in OAC rule 3745-17-07(A)(1) stated in term A.1 shall be determined by the methods specified in 40 CFR Part 60 Appendix A, Method 9.

**F. Miscellaneous Requirements**

1. Since emissions units P002 and P003 have a combined stack, the allowable emission rates during performance tests will be determined by adding together the hourly allowable emission rates for emissions units P002 and P003.
2. The terms and conditions of this permit to install shall supercede the terms and conditions of Permit to Install 14-05386 issued on June 5, 2003.

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PTI A

Modification Issued: 5/18/2006

Emissions Unit ID: P003

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P003 - Spray Dryer 5 - Modification	<p>OAC rule 3745-31-02(A)(2)</p> <p>OAC rule 3745-21-07(G)</p> <p>OAC rule 3745-17-07(A)(1)</p> <p>OAC rule 3745-17-11(B)</p>

**Givau****PTI A****Modification Issued: 5/18/2006**Emissions Unit ID: **P003**

Applicable Emissions  
Limitations/Control Measures

Particulate emissions\* (PE) and particulate matter emissions ten microns and less in diameter (PM10) from the spray dryer shall not exceed 0.23 pound per hour and 1.0 ton per year.

\* PE = PM10

Organic compound (OC) emissions from the spray dryer shall not exceed 0.81 pound per hour and 3.55 tons per year.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).

Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-02(A)(2).

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant

to OAC rule 3745-31-02(A)(2).

Modification Issued: 5/18/2006

## **2. Additional Terms and Conditions**

- 2.a** The hourly and annual emission limitations outlined in term A.1. are based upon the emissions unit's potential to emit. Therefore, no hourly or annual records are required to demonstrate compliance with these limits.
- 2.b** Compliance with OAC rule 3745-31-02(A)(2) shall be demonstrated by the use of a scrubber and a panel filter with at least a 97% overall control efficiency for particulate emissions and a thermal oxidizer with at least a 97% control efficiency for organic compound emissions.

## **B. Operational Restrictions**

- 1. The average combustion temperature within the regenerative thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1554 degrees Fahrenheit.
- 2. The scrubber water flow rate shall be maintained at a value of not less than 500 gallons per minute at all times while the emissions unit is in operation.

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

- 1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be , calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deems necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was less than 1554 degrees Fahrenheit.
  - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
- 2. The permittee shall properly operate and maintain equipment to continuously monitor

**Emissions Unit ID: P003**

the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

The permittee shall collect and record the following information each day:

- a. The scrubber water flow rate, in gallons per minute, once each day.
- b. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

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

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in term B.1.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the scrubber flow rate was not maintained at 500 gallons/minute.
3. The deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

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

1. Compliance with the emission limitation in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
0.23 lb/hr PE/PM10  
1.0 TPY PE/PM10

Applicable Compliance Method:

Compliance with the emission limitation shall be determined by multiplying the production rate (150 lb/hr) by the loss factor (0.05) by the control efficiency of the scrubber and panel filter (1-0.97). Annual emissions shall be determined by multiplying the hourly emissions by 8760 hours per year and dividing by 2000 lbs/ton. The emissions factors were provided in PTI application 14-05386 submitted November 27, 2002.

**Givau****PTI A****Modification Issued: 5/18/2006**Emissions Unit ID: **P003****b. Emission Limitation:**

0.81 lb/hr OC

3.55 TPY OC

**Applicable Compliance Method:**

Compliance with the hourly emission limitation shall be determined by multiplying the emission factor, 27 lbs/hr, by the control efficiency of the thermal oxidizer (1-0.97). Annual emissions shall be determined by multiplying the hourly emissions by 8760 hours per year and dividing by 2000 lbs/ton. The emissions factors were provided in PTI application 14-05386 submitted November 27, 2002.

2. Compliance with the visible particulate emission limitation established in OAC rule 3745-17-07(A)(1) stated in term A.1 shall be determined by the methods specified in 40 CFR Part 60 Appendix A, Method 9.

**F. Miscellaneous Requirements**

1. Since emissions units P002 and P003 have a combined stack, the allowable emission rates during performance tests will be determined by adding together the hourly allowable emission rates for emissions units P002 and P003.
2. The terms and conditions of this permit to install shall supercede the terms and conditions of Permit to Install 14-05386 issued on June 5, 2003.