State of Ohio Environmental Protection Agency

RE: FINAL PERMIT TO INSTALL **CERTIFIED MAIL**
HAMILTON COUNTY

Street Address:
50 West Town Street, Suite 700
Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329
Mailing Address:
Lazarus Gov. Center
P.O. Box 1049

Application No: 14-05929
Fac ID: 1431070914
DATE: 7/5/2007

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

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** **HCDES**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install	**Issue Date: 7/5/2007**
Terms and Conditions	**Effective Date: 7/5/2007**

FINAL PERMIT TO INSTALL 14-05929

Application Number:	14-05929
Facility ID:	1431070914
Permit Fee:	**$200**
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):
PTI for Pilot Plant Process.

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

Pollutant	Tons Per Year
OC	1.97
PE	2.72
PM10	2.72

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 - (P041) - Pilot Plant Process

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-02(A)(2)	Organic Compound (OC) emissions from the pilot plant operations shall not exceed 0.45 pound per hour and 1.97 tons per year. Particulate emissions (PE) and particulate matter emissions ten microns and less in diameter (PM10) from the pilot plant operations shall not exceed 2.72 tons per year. See term and condition A.2.a.
OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20 percent opacity, as a six minute average, except as specified by rule.
OAC rule 3745-17-11(B)	Particulate emissions (PE) from the pilot plant operations shall not exceed 0.877 pound per hour.

2. Additional Terms and Conditions

2.a Permit-to-Install number 14-05929 for this air contaminant source takes into account the following voluntary restrictions (including the use of any control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) under OAC rule 3745-31-05(A)(3):

i. the permittee shall control particulate emissions from equipment (other than equipment that meets the deminimis air contaminant source exemption per OAC rule 3745-15-05) with the use a panel filter with at least a 80% control efficiency and either a wet venturi scrubber with at least a 85% control efficiency or a packed bed scrubber with at least a 90% control efficiency; and

ii. the permittee shall control organic compound emissions with the use of a

regenerative thermal oxidizer with at least a 97% control efficiency.

B. Operational Restrictions

None

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to continuously monitor the wet venturi and packed bed scrubber water flow rates during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the water flow rate on daily basis.

   Whenever the monitored value for the water flow rate falls below the value specified below when the emissions unit is in operation, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

   In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable value specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the water flow rate immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

   The minimum scrubber water flow rate for the wet packed bed scrubber shall be maintained at or above 2.25 gallons per minute at all times when the emissions unit is in operation.

   The minimum scrubber water flow rate for the wet venturi scrubber shall be maintained at or above 2.25 gallons per minute at all times when the emissions unit is in operation.

This value is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the value based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the value will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

2. The permittee shall install, operate, and maintain a continuous temperature monitor and recorder which measures and records the average combustion temperature within the thermal incinerator when the emissions unit is in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The permittee shall record the average combustion temperature for each three-hour time block when the emissions unit is in operation on a daily basis.

   Whenever the monitored value for the average combustion temperature falls below the value specified below for any continuous three-hour block of time when the emissions unit is in operation, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

   In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable value specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the thermal incinerator temperature immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

   The average combustion temperature within the thermal incinerator, for any 3-hour

block of time when the emissions unit is in operation, shall not fall below 1450 degrees Fahrenheit.

This value is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the average combustion temperature based upon information obtained during future organic compound emission tests that demonstrate compliance with the allowable organic compound emission rate for this emissions unit. In addition, approved revisions to the average combustion temperature will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

3. The permittee shall operate and maintain a log of the equipment (other than equipment that meets the de minimis air contaminant source exemption per OAC rule 3745-15-05) that is installed and operating within the pilot plant. For each piece of equipment listed in the log, the permittee shall record the following information:

   a. the date the equipment first became operational and the date the equipment was taken out of service;

   b. the manufacturer, make and model number of the equipment; and

   c. the control device(s) through which exhaust from the equipment is routed;

   d. a calculation of the hourly controlled emissions rate of particulate matter and organic compound emissions from the equipment. This calculation shall be the uncontrolled emissions rate of the equipment (based upon information form the manufacturer, AP-42 or another source of reliable information as deemed appropriate by the Administrator) multiplied by one minus the control efficiency of the control device(s) to which the equipment is exhausted. The control efficiency for each control device shall be based upon the efficiencies set forth in term and condition A.2.a.

   These records shall be maintained at the facility for three years after the equipment is taken out of service.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation reports that identify the following

information concerning the operation of the control equipment during the operation of this emissions unit:

a. each period of time when the scrubber water flow rate(s) was (were) outside of the acceptable range;

b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the scrubber water flow rate(s) into compliance with the acceptable range(s), was (were) determined to be necessary and was (were) not taken; and

d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters.

2. The permittee shall submit quarterly deviation reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator was less than 1450 degrees Fahrenheit ***;***

b. an identification of each incident of deviation described in (a) where prompt investigation was not conducted;

c. an identification of incident of deviation described in (a) where prompt corrective action, that would bring the average combustion temperature within the thermal incinerator into compliance with the acceptable range, was determined to be necessary and was not taken; and

d. an identification of incident of deviation described in (a) where proper records were not maintained for the investigation and/or corrective action.

These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters.

3. The permittee shall submit annual reports which identify all equipment (other than equipment that meets the de minimis air contaminant source exemption per OAC rule 3745-15-05) located at the pilot plant and the annual OC and PE emissions from such sources.

E. Testing Requirements

1. Compliance with the emissions limitation(s) specified in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):

   Emissions Limitations:
   Particulate Emissions (PE) shall not exceed 0.877 lb/hr.

   Applicable Compliance Method:
   The hourly PE limitation is based on Table I in OAC rule 3745-17-11(B). This emission limitation exceeds the emission unit's controlled potential to emit. Compliance with the emission limitation outlined in this permit shall be demonstrated by the emission factors, control efficiencies (if applicable) and the operational parameters as submitted in the PTI application 14-05929 submitted March 9, 2007. All PE is assumed to be PM10. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 and 5 of 40 CFR, Part 60, Appendix A for particulate emissions (PE) and Method 201 and/or 201A of 40 CFR, Part 51, Appendix M for particulate emissions 10 microns and less in diameter (PM10).

   Emissions Limitations:
   Particulate emissions (PE) and particulate matter emissions 10 microns and less in diameter (PM10) shall not exceed 2.72 TPY.

   Applicable Compliance Method:
   The emission limitations are equal to the emission unit's potential to emit. The potential to emit was calculated by: {(0.62 lbs/hr) x (8760 hours/year)} / (2000 lbs/ton) as provided in Permit to Install 14-05929 received on March 9, 2007. All PE is assumed to be PM10.

   Emissions Limitations:
   Organic compound (OC) emissions shall not exceed 0.45 lb/hr.

   Applicable Compliance Method:
   Compliance with the hourly OC emissions limitation shall be determined by summing

the controlled emissions rates calculated pursuant to term and condition C.3.d. for all equipment installed in the pilot plant and included in the log required by term C.3.

Emissions Limitations:
Organic compound (OC) emissions shall not exceed 1.97 TPY.

Applicable Compliance Method:
Compliance with the annual OC emissions limitation shall be determined by multiplying the rates of controlled emissions from each piece of equipment by the number of days that the equipment was in operation and by 24 hours per day.

Emissions Limitation:
Visible particulate emissions shall not exceed 20% opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

F. Miscellaneous Requirements

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic pollutant will be less than 1.0 ton. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that a new permit to install application would be required for an emissions unit if changes in the composition of the materials or use of new materials would cause the emissions of any pollutant that has a listed Threshold Limit Value (TLV), 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"), to increase to above 1.0 ton per year.

2. The terms and conditions of this permit to install shall supersede the terms and conditions of permit to install 14-05138 as issued on July 24, 2001.

Givaudan Flavors Corp **Facility ID: 1431070914**
PTI Application: 14-05929
Issued: 7/5/2007

Emissions Unit ID: **P041**

SIC CODE 2087 SCC CODE 3-02-999-98 EMISSIONS UNIT ID P041
EMISSIONS UNIT DESCRIPTION Pilot Plant Process
DATE INSTALLED 10/2000
EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment	0.02 lb/hr	0.08	0.877 lb/hr	2.72
PM_{10}	Attainment	0.02 lb/hr	0.08	0.877 lb/hr	2.72
Sulfur Dioxide					
Organic Compounds	Non Attainment	0.01 lb/hr	0.04	0.45 lb/hr	1.97
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? No NESHAP? No PSD? No OFFSET POLICY? No

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
BAT does not apply as all source emissions are under 10 TPY

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $NA

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: NA