State of Ohio Environmental Protection Agency

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

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: 14-04579

DATE: 4/5/2001

Givaudan Flavors Corp
Glenn Ingraham
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
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA **HCDES**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install **Issue Date: 4/5/2001**
Terms and Conditions **Effective Date: 4/5/2001**

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 14-04579

Application Number:	14-04579
APS Premise Number:	1431070914
Permit Fee:	**$100**
Name of Facility:	Givaudan Flavors Corp
Person to Contact:	Glenn Ingraham
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):
Two spray dryers with wet cyclone scrubber and regenerative thermal oxidizer (modification to PTI 14-04579 as issued on October 15, 1998).

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 Related to Monitoring and Recordkeeping 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 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 application must be made to the Director for the installation or modification of any other emissions unit(s).

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

a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or

modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. 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 thirty (30) days after commencing operation of the source(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	3.94
PM/PM10	2.72

Emissions Unit ID: **P021**

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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P021 - Spray dryer No. 10 with wet cyclone scrubber and regenerative thermal oxidizer	OAC rule 3745-31-05(A)(3)	0.21 lb/hr and 0.92 TPY PM/PM10 0.30 lb/hr and 1.31 TPY OC The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
	OAC rule 3745-17-07(A)	See term A.2.a.
	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-07(G)(2)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

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

2.b The hourly and annual emission limitations outlined are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly records are required to demonstrate compliance with these limits.

2.c Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of a wet cyclone scrubber and regenerative thermal oxidizer, emissions limitations, and compliance with the opacity limitation.

B. Operational Restrictions

1. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

2. The pressure drop across the scrubber shall be continuously maintained at a value of not less than 0.25 inch of water for this emissions unit at all times while this emissions unit is in operation.

3. The scrubber water flow rate shall be continuously maintained at a value of not less than 9 gallons of water per minute per 1,000 cubic feet per minute of air 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 installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed 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 more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

   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 install, operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, 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 pressure drop across the scrubber, in inches of water, on a once per shift basis,

b. The scrubber water flow rate, in gallons per minute, on a once per shift basis, and

c. A log of the downtime for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit is in operation.

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 following scrubber parameters were not maintained at or above the required levels:

a. The static pressure drop across the scrubber; and,

b. The scrubber water flow rate.

3. The deviation 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 visible particulate limitation shall be demonstrated by the methods outlined in 40 CFR Part 60, Appendix A, Method 9.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted 60 days after achieving the maximum production rate or 180 days after the initial startup, whichever date comes first.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for OC and particulate.

c. The following test method(s) shall be employed to demonstrate compliance with the

allowable mass emission rate(s): For OC, 40 CFR 60, Appendix A, Method 25 and for PM, 40 CFR 60, Appendix A, Method 5. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

F. Miscellaneous Requirements

1. If probable cause exists indicating the unit is causing or contributing to a nuisance in violation of OAC rule 3745-15-07, the owner or operator of this emissions unit shall be required to submit and implement a control program which will bring this unit into compliance.

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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P022 - Spray dryer No. 11 with wet cyclone scrubber and regenerative thermal oxidizer (modification)	OAC rule 3745-31-05(A)(3)	0.41 lb/hr and 1.80 TPY PM/PM10 0.60 lb/hr and 2.63 TPY OC The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
	OAC rule 3745-17-07(A)	See term A.2.a.
	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-07(G)(2)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a Visible particulate emissions from any stack shall not exceed 20% opacity, as a six minute

average, except as specified by rule.

2.b The hourly and annual emission limitations outlined are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly records are required to demonstrate compliance with these limits.

2.c Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of a wet cyclone scrubber and regenerative thermal oxidizer, emissions limitations, and compliance with the opacity limitation.

B. Operational Restrictions

1. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

2. The pressure drop across the scrubber shall be continuously maintained at a value of not less than 0.84 inch of water for this emissions unit at all times while this emissions unit is in operation.

3. The scrubber water flow rate shall be continuously maintained at a value of not less than 9 gallons of water per minute per 1,000 cubic feet per minute of air 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 installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed 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 more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

   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 install, operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, 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 pressure drop across the scrubber, in inches of water, on a once per shift basis,

b. The scrubber water flow rate, in gallons per minute, on a once per shift basis, and

c. A log of the downtime for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit is in operation.

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 following scrubber parameters were not maintained at or above the required levels:

a. The static pressure drop across the scrubber; and,

b. The scrubber water flow rate.

3. The deviation 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 visible particulate limitation shall be demonstrated by the methods outlined in 40 CFR Part 60, Appendix A, Method 9.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted 60 days after achieving the maximum production

rate or 180 days after the initial startup, whichever date comes first.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for OC and particulate.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): For OC, 40 CFR 60, Appendix A, Method 25 and for PM, 40 CFR 60, Appendix A, Method 5. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

F. Miscellaneous Requirements

1. If probable cause exists indicating the unit is causing or contributing to a nuisance in violation of OAC rule 3745-15-07, the owner or operator of this emissions unit shall be required to submit and implement a control program which will bring this unit into compliance.

NEW SOURCE REVIEW FORM B

PTI Number: 14-04579 Facility ID: 1431070914

FACILITY NAME Givaudan Flavors Corp

FACILITY DESCRIPTION Two spray dryers with wet cyclone CITY/TWP Cincinnati

Emissions Unit ID: **P022**

SIC CODE 2087 SCC CODE EMISSIONS UNIT ID P021

EMISSIONS UNIT DESCRIPTION Spray dryer No. 10 with wet cyclone scrubber and regenerative thermal oxidizer

DATE INSTALLED

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					
PM_{10}					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY?

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? YES NO

IDENTIFY THE AIR CONTAMINANTS:

12580.wpd

NEW SOURCE REVIEW FORM B

PTI Number: 14-04579 Facility ID: 1431070914

FACILITY NAME Givaudan Flavors Corp

FACILITY DESCRIPTION Two spray dryers with wet cyclone CITY/TWP Cincinnati

Emissions Unit ID: **P022**

SIC CODE 2087 SCC CODE EMISSIONS UNIT ID P022

EMISSIONS UNIT DESCRIPTION Spray dryer No. 11 with wet cyclone scrubber and regenerative thermal oxidizer (modification)

DATE INSTALLED

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					
PM_{10}					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY?

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? _____ YES _____ NO

IDENTIFY THE AIR CONTAMINANTS: _____

ADMINISTRATIVE MODIFICATION

inter-office communication

to: DAPC, Air Quality Modeling and Planning

from: Kari Ball, Hamilton County Department of Environmental Services

subject: Administrative Modification of Permit to Install

date: March 1, 2001

Choose one:

Initiated by: ____ Permittee __X___ DO/LAA

NEW SOURCE REVIEW FORM B

PTI Number: 14-04579 Facility ID: 1431070914

FACILITY NAME Givaudan Flavors Corp

FACILITY DESCRIPTION Two spray dryers with wet cyclone CITY/TWP Cincinnati

Emissions Unit ID: **P022**

___ This modification is the result of an appeal to the Environmental Review Appeals Commission.

Please fill out the following:

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

Pollutant	Tons Per Year
OC	3.94
PM/PM10	2.72

Please provide a fairly detailed description of the basis for the modification and how the permit is being modified:

PTI 14-4579 was issued on October 15, 1998 for two spray dryers, No. 10 and No. 11, with wet cyclone scrubbers and a regenerative thermal oxidizer. The permit limitations for spray dryer No. 10 (emissions unit P021) are 0.21 lb/hr and 0.92 TPY PM/PM10 and 0.30 lb/hr and 1.31 TPY OC. The limitations for spray dryer No. 11 (emissions unit P022) are 0.41 lb/hr and 1.80 TPY PM/PM10 and 0.60 lb/hr and 2.63 TPY OC. Stack testing was performed on these emissions units on November 1, 2000 and compliance with the above emissions limitations was demonstrated.

During the stack test, the pressure drop across the scrubber controlling emissions unit P022 averaged 0.93 inches of water. PTI 14-4579 set an operational restriction for this scrubber that the pressure drop should be maintained at 1.75 inches of water or higher. This pressure drop value of 1.75 inches of water was set based on manufacturer's estimates based on a different

air flow rate for the scrubber. Since the stack test demonstrated that actual emissions were much lower than the permit allowable emissions, even at this lower pressure drop, this PTI will be modified to change the pressure drop across the scrubber to the range that demonstrated compliance during the 11/1/00 stack test. The new minimum pressure drop value for the scrubber controlling emissions unit P022 will be 0.84 inch of water (gives standard deviation of 10%).

Emissions unit P021 will not be modified, and only the pressure drop across the scrubber needs to be modified for emissions unit P022. The language throughout the permit will also be updated to reflect current wording of terms and conditions, but the content will not be changed in any way.

Permit Fee:
No fee for emissions unit P021
P022 = Process from 0-1000 lbs/hr = $200/2 (for modification) = **$100**

Prepared by:Kari Ball
Date:March 1, 2001

Additional Comments

2 **NEW SC**

PTI Num

FACILIT

Emissions Unit ID: **P022**

FACILITY DESCRIPTION	Two spray dryers with wet cyclone scrubber and regenerative thermal oxidizer (modification to PTI 14-04579 as issued on October 15, 1998).	CITY/TWP	Cincinnati

22 **NEW SC**
PTI Num
FACILIT

Emissions Unit ID: **P022**

FACILITY DESCRIPTION Two spray dryers with wet cyclone scrubber and regenerative thermal oxidizer (modification to PTI 14-04579 as issued on October 15, 1998).

CITY/TWP Cincinnati

Ohio EPA Permit to Install Information Form Please describe below any documentation which is being submitted with this recommendation (must be sent the same day). Electronic items should be submitted with the e-mail transmitting the PTI terms, and in software that CO can utilize. If mailing any hard copy, this section must be printed as a cover page. All items must be clearly labeled indicating the PTI name and number. Submit hard copy items to **Pam McGraner**, AQM&P, DAPC, Central Office, and electronic files to **airpti@epa.state.oh.us**

Please fill out the following. If the checkbox does not work, replace it with an 'X'	Electronic	**Additional information** File Name Convention (your PTI # plus this letter)	Hard Copy	None
Calculations (required)	☐	0000000**c**.wpd	☒	
Modeling form/results	☐	0000000**s**.wpd	☐	☒
PTI Application (complete or partial)*	☐	0000000**a**.wpd	☐	☒
BAT Study	☐	0000000**b.**wpd	☐	☒
Other/misc.	☐	0000000**t**.wpd	☐	☒

* Mandatory for netting, PSD, nonattainment NSR, 112(g), 21-07(G)(9)(g) and 21-09(U)(2)(f) - 2 complete copies.

Please complete (see comment bubble to the left for additional instructions):

NEW SOURCE REVIEW FORM B

PTI Number: 14-04579 Facility ID: 1431070914

FACILITY NAME Givaudan Flavors Corp

FACILITY DESCRIPTION Two spray dryers with wet cyclone CITY/TWP Cincinnati

Emissions Unit ID: **P022**

NSR Discussion

PTI 14-04579 (admin. mod.)

Givaudan Flavors Corp.
110 E. 70th Street
Cincinnati, OH 45216
PN: 1431070914

PTI 14-4579 was issued on October 15, 1998 for two spray dryers, No. 10 and No. 11, with wet cyclone scrubbers and a regenerative thermal oxidizer. The permit limitations for spray dryer No. 10 (emissions unit P021) are 0.21 lb/hr and 0.92 TPY PM/PM10 and 0.30 lb/hr and 1.31 TPY OC. The limitations for spray dryer No. 11 (emissions unit P022) are 0.41 lb/hr and 1.80 TPY PM/PM10 and 0.60 lb/hr and 2.63 TPY OC. Stack testing was performed on these emissions units on November 1, 2000 and compliance with the above emissions limitations was demonstrated.

During the stack test, the pressure drop across the scrubber controlling emissions unit P022 averaged 0.93 inches of water. PTI 14-4579 set an operational restriction for this scrubber that the pressure drop should be maintained at 1.75 inches of water or higher. This pressure drop value of 1.75 inches of water was set based on manufacturer's estimates based on a different air flow rate for the scrubber. Since the stack test demonstrated that actual emissions were much lower than the permit allowable emissions, even at this lower pressure drop, this PTI will be modified to change the pressure drop across the scrubber to the range that demonstrated compliance during the 11/1/00 stack test. The new minimum pressure drop value for the scrubber controlling emissions unit P022 will be 0.84 inch of water (gives standard deviation of 10%).

24 **NEW SC**
PTI Num
FACILIT

Emissions Unit ID: **P022**

FACILITY DESCRIPTION	Two spray dryers with wet cyclone scrubber and regenerative thermal oxidizer (modification to PTI 14-04579 as issued on October 15, 1998).	CITY/TWP	Cincinnati

Emissions unit P021 will not be modified, and only the pressure drop across the scrubber needs to be modified for emissions unit P022. The language throughout the permit will also be updated to reflect current wording of terms and conditions, but the content will not be changed in any way.

Permit Fee:
No fee for emissions unit P021
P022 = Process from 0-1000 lbs/hr = $200/2 (for modification) = **$100**

Prepared by: Kari Ball
Date: March 1, 2001

Please complete for these type permits (For PSD/NSR Permit, place mouse over this text):

☐ **Synthetic Minor Determination and/or** ☐ **Netting Determination**
Permit To Install **ENTER PTI NUMBER HERE**

A. Source Description

B. Facility Emissions and Attainment Status

C. Source Emissions

25 **NEW SC**
PTI Num
FACILIT

Emissions Unit ID: **P022**

FACILITY DESCRIPTION	Two spray dryers with wet cyclone scrubber and regenerative thermal oxidizer (modification to PTI 14-04579 as issued on October 15, 1998).	CITY/TWP	Cincinnati

D. Conclusion

PLEASE PROVIDE ADDITIONAL NOTES OR COMMENTS AS NECESSARY:

NONE

Please complete:

SUMMARY (for informational purposes only)

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant	Tons Per Year
OC	3.94
PM/PM10	2.72

NEW SC

PTI Num

FACILIT

Emissions Unit ID: **P022**

FACILITY DESCRIPTION	Two spray dryers with wet cyclone scrubber and regenerative thermal oxidizer (modification to PTI 14-04579 as issued on October 15, 1998).	CITY/TWP	Cincinnati