

**A. Applicable Emission Limitations and/or Control Requirements:**

1. Visible particulate emissions from any stack shall not exceed 20% percent opacity, as a six-minute average, except as specified by rule.
2. The organic compound emissions from emissions unit P021 shall not exceed 0.30 pound per hour and 1.31 tons per year.
3. The PM/PM10 emissions from emissions unit P021 shall not exceed 0.21 pounds per hour and 0.92 ton per year.
4. The organic compound emissions from emissions unit P022 shall not exceed 0.60 pound per hour and 2.63 tons per year.
5. The PM/ PM10 emissions from emissions unit P022 shall not exceed 0.41 pound per hour and 1.80 tons per year.

**B. Operational Restrictions:**

1. The average combustion temperature within the thermal incinerator, 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 4 inches of water at all times while the 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 Record keeping 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 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/shift basis.
- b. The scrubber water flow rate, in gallons per minute, on a once/shift basis.
- c. A log of the downtime for the capture (collection) system, control device and monitoring equipment, when the associated emissions unit was in operation.

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- d. The air flow rate to the scrubber in cubic feet per minute.
3. All records required by this Permit to Install shall be retained on file for a period of not less than five years unless otherwise indicated by the Ohio

Environmental Protection Agency. All records shall be made available to the Director, or any representative of the Director, for review during normal business hours.

**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 T&C 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.
  - b. The scrubber water flow rate.
3. 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 record keeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which

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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 the 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 30, April 30, July 30, and October 30 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.)

**E. Compliance Methods/Testing Requirements:**

1. Compliance with the visible emissions limitation in T&C A.1 shall be determined by the methods outlined in Ohio Administrative Code (OAC) rule 3745-17-03(B)(1).
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 ever 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.

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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 exist indicating the source is causing or contributing to a nuisance in violation of Ohio Administrative Code rule 3475-15-07, the owner or operator of this emissions unit shall be required to submit and implement a control program which will bring this source into compliance.
2. The hourly emission limitations outlined in this permit are based upon the emissions units potential to emit.

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Therefore, no hourly records are required to demonstrate compliance with these limits.

Permit Review Narrative  
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Givaudan-Roure Flavors  
110 East 70th Street  
Cincinnati, Ohio 45216

Premise Number: 1431070914

This Permit to Install (PTI) is for two new spray dryers at Givaudan-Roure Flavors Corporation. The spray dryers will be controlled by a cyclonic scrubber for particulate control and a regenerative thermal oxidizer for control of organic compounds (OC)'s. The applicable rules for these two emissions units are the following: OAC 3745-31-05; OAC 3745-17-11(B)(1); OAC 3745-21-07(G); OAC 3745-17-07(A); and OAC 3745-15-07. This PTI will be issued in draft due to the history of public concern and complaints at Givaudan-Roure Flavors.

The actual emissions of PM/PM10 for emissions unit P021 are 0.16 LB/HR and 0.34 TPY and for emissions unit P022 are 0.33 and 0.68 TPY. The actual OC emissions for emissions unit P021 are 0.24 LB/HR and 0.50 TPY. The actual OC emissions for emissions unit P022 are 0.48 LB/HR and 1.00 TPY. The potential/ allowable emissions for the emissions units are the following:

**P021**

PM/PM10: 0.21 LB/HR and 0.92 TPY  
OC: 0.30 LB/HR and 1.31 TPY

**P022**

PM/PM10: 0.41 LB/HR and 1.80 TPY  
OC: 0.60 LB/HR and 2.63 TPY

Best Available Technology is the use of control devices including both a Wet Cyclone Scrubber and Regenerative Thermal Oxidizer. Emission testing will be required for particulate and OC emissions to verify compliance. This PTI is recommended for approval.

Permit Fee:	P021	\$200
	P022	<u>\$200</u>
	Total	\$400

Prepared By: Kerri Kahlenberg  
Date: June 12, 1998