



Environmental
Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

1/30/2012

Robert STERNFELD
Research Organics Inc.
Research Organics, Inc.
4353 East 49th Street
Cuyahoga Heights, OH 44125

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 1318172081
Permit Number: P0109353
Permit Type: Administrative Modification
County: Cuyahoga

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
Yes	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI is a final action of the Director 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, made payable to "Ohio Treasurer Josh Mandel," 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

If you have any questions, please contact Cleveland Division of Air Quality at (216)664-2297 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPCWeb page, www.epa.ohio.gov/dapc, by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: CDAQ



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Research Organics Inc.**

Facility ID:	1318172081
Permit Number:	P0109353
Permit Type:	Administrative Modification
Issued:	1/30/2012
Effective:	1/30/2012
Expiration:	5/19/2014



Division of Air Pollution Control
Permit-to-Install and Operate
for
Research Organics Inc.

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Authorization

Facility ID: 1318172081

Application Number(s): M0001518

Permit Number: P0109353

Permit Description: This is an admin mod for emissions unit P013. Previously permitted under P0095320, 5/19/2009. The change will be made for the lb/hr and ton/yr emission limitations for OC from 0.0081 lb/hr to 0.24 lb/hr and 0.035 TPY to 1.051 TPY. P0095320 contained the wrong emission limitation when it was issued final. The permittee and Cleveland DAQ originally agreed upon the 1.051 TPY emission limitation, however an error occurred between the time of the draft copy and final issuance and the incorrect limitation was included.

Permit Type: Administrative Modification

Permit Fee: \$0.00

Issue Date: 1/30/2012

Effective Date: 1/30/2012

Expiration Date: 5/19/2014

Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Research Organics Inc.
4353 East 49th Street
Cuyahoga Heights, OH 44125

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

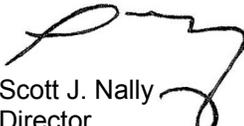
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Cleveland Division of Air Quality
2nd Floor
75 Erieview Plaza
Cleveland, OH 44114
(216)664-2297

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section 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 described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency



Scott J. Nally
Director



Authorization (continued)

Permit Number: P0109353

Permit Description: This is an admin mod for emissions unit P013. Previously permitted under P0095320, 5/19/2009. The change will be made for the lb/hr and ton/yr emission limitations for OC from 0.0081 lb/hr to 0.24 lb/hr and 0.035 TPY to 1.051 TPY. P0095320 contained the wrong emission limitation when it was issued final. The permittee and Cleveland DAQ originally agreed upon the 1.051 TPY emission limitation, however an error occurred between the time of the draft copy and final issuance and the incorrect limitation was included.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	P013
Company Equipment ID:	REACTOR NO. 8 SYSTEM
Superseded Permit Number:	P0095320
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is

very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Cleveland Division of Air Quality in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting¹ a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

¹Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.

B. Facility-Wide Terms and Conditions

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) None.

C. Emissions Unit Terms and Conditions



1. P013, REACTOR NO. 8 SYSTEM

Operations, Property and/or Equipment Description:

Reactor No. 8 Process Line - 300 gallon reactor, hot oil unit, crystallizer, and filter press controlled by scrubber nos. 2 and/or 5

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(2)b., c)(3), d)(4), e)(1), f)(1)c. and f)(1)d.

b) Applicable Emissions Limitations and/or Control Requirements

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

Table with 2 columns: Applicable Rules/Requirements and Applicable Emissions Limitations/Control Measures. Rows include OAC rule 3745-31-05(A)(3), OAC rule 3745-21-07(G)(2), and OAC rule 3745-31-05(D) Synthetic Minor to avoid Title V.

(2) Additional Terms and Conditions

a. On February 8, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore the 21-7 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as

a revision to Ohio's State Implementation Plan (SIP). The requirements to comply with the previous 21-07 rule provisions no longer apply to this permit (P0109353) which is an administrative modification to P0095320.

- b. The total allowable usage and emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act, from emissions units at this facility (listed in b)(2)c. below) shall not exceed 9.9 tons/year for any individual HAP and 24.9 tons/year for any combination of HAPs. Compliance with the above limitations shall be based upon a rolling, 12-month summation.
 - c. The current list of emissions units at this facility are P001, P002, P005, P006, P007, P008, P009, P011, P012, P013, P014, P016, P017, P019, P020, P021, P024, P026, P027, P028, P029, P030, P031, P032, P033, P034, P035, P038, P039, P040, P041, P042, P043, P044, P045, P046, P047, P048, P049, P050, P051, P052, P053, P054, T001, T002, T003, T004, T005, T006, T007, T008, T010, T011, T012, B001, B002, B003, B004, B005, B006, and F001.
 - d. The requirements of OAC rule 3745-21-07(M)(3)(a) do not apply to this emissions unit because the uncontrolled potential to emit organic compounds is less than 40 pounds/day in accordance with OAC rule 3745-21-07(M)(3)(c)(ii).
- c) Operational Restrictions
- (1) Scrubber Nos. 2 and/or 5, connected through a common, closed loop ductwork and damper system, shall be operating at all times while the emission unit is in operation.
 - (2) The acceptable ranges for the pressure drop across the scrubber, the flow rate range for the scrubber, the scrubber liquor temperature (for scrubber No. 2), and the pH range for the scrubber shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted.
 - a. The acceptable ranges from the manufacturer's specifications for scrubber no. 5 are 8.0 to 12.0 inches of water for the pressure drop across the scrubber, 90-110 gallons per minute for the scrubber flow rate range, and 6.0 to 9.5 for the pH range of the scrubber.
 - b. The permittee shall operate scrubber No. 2 with the following restrictions:
 - i. the scrubber flow rate in Tower No. 1 shall be continuously maintained at a value of not less than 120 gallons per minute at all times while the emissions unit is in operation. This will be obtained by having the recirculation valve completely opened and supplying fresh makeup water at value not less than 1.5 gallons per minute;
 - ii. the scrubber flow rate in Tower No. 2 shall be continuously maintained at a value of not less than 77 gallons per minute at all times while the emissions unit is in operation. This will be obtained by having the recirculation valve completely opened and supplying fresh makeup water at value not less than 1.0 gallons per minute;

- iii. the pressure drop across Tower No. 1 shall be continuously maintained at a value of not less than 0.5 inches of water at all times while the emissions unit is in operation;
 - iv. the pressure drop across Tower No. 2 shall be continuously maintained at a value of not less than 0.5 inches of water at all times while the emissions unit is in operation;
 - v. the pH of the scrubber liquor in Tower No. 1 of the scrubber shall be maintained at or above 6.0;
 - vi. the temperature of the scrubber liquor for Tower No. 1 shall be continuously maintained at a value not more 95 degrees Fahrenheit; and
 - vii. the temperature of the scrubber liquor for Tower No. 2 shall be continuously maintained at a value not more 90 degrees Fahrenheit.
- (3) The maximum annual HAPs material usage for the list of emissions units referenced in b)(2)c. shall not exceed 9.9 tons/year for any individual HAP and 24.9 tons/year for any combination of HAPs, based upon a rolling, 12-month summation.
- d) Monitoring and/or Recordkeeping Requirements
- (1) For the scrubber(s) in operation, the permittee shall properly operate and maintain equipment to continuously monitor the scrubber's static pressure, the scrubber's water flow rate and the scrubber's liquor temperature (for scrubber No. 2) 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.
- a. The permittee shall collect and record the following information each day for scrubber No. 5:
 - i. the scrubber water flow rate; and
 - ii. the pressure drop across the scrubber.
 - b. The permittee shall collect and record the following information each day for scrubber No. 2:
 - i. the scrubber water flow rate from Tower No. 1, in gallons per minute, on once/shift basis. This shall be accomplished by visually inspecting the recirculation valve (visual inspections shall be done on once/day, 5 days/week basis, exceptions are made for holidays) and recording the flow rate of the makeup water;
 - ii. the scrubber water flow rate from Tower No. 2, in gallons per minute, on once/shift basis. This shall be accomplished by visually inspecting the recirculation valve (visual inspections shall be done on once/day, 5 days/week basis, exceptions are made for holidays) and recording flow rate of the makeup water;

- iii. the pressure drop across Tower No. 1 on the scrubber, in inches of water, on once/shift basis;
 - iv. the pressure drop across Tower No. 2 on the scrubber, in inches of water, on once/shift basis;
 - v. the temperature of the scrubber liquor in Tower No. 1, in Fahrenheit, on once/shift basis;
 - vi. the temperature of the scrubber liquor in Tower No. 2, in Fahrenheit, on once/shift basis; and
 - vii. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
- (2) The permittee shall properly operate and maintain equipment to continuously monitor the pH scrubber liquor from scrubber No. 2 (Tower No. 1) and/or scrubber No. 5 while the emissions unit is in operation. The pH monitor and recorder 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 pH of the scrubber liquor, on once/shift basis; and
 - b. a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
- (3) The permittee shall collect and record the following information each month for process line P013:
- a. the name and identification of each product;
 - b. number of batches;
 - c. the calculated amount of OC emissions for the month using the formula provided in f)(1)b.; and
 - d. the calculated rolling, 12-month OC emissions for the previous 12 months.
- (4) The permittee shall collect and record the following information each month on a facility-wide basis, for emissions units referenced in b)(2)c.:
- a. the total individual and combined HAPs material usage and emissions, in pounds per month; and
 - b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of individual HAPs and combined HAPs material usage and emissions, in tons

Also, during the first 12 calendar months of operation following issuance of this permit, the permittee shall record the cumulative HAP usage and emissions rate for each calendar month.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the Potential to Emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. 1.051 ton OC/year as a rolling, 12-month summation
 - ii. 9.9 tons/year for any individual HAP
 - iii. 24.9 tons/year for any combination of HAPs
 - iv. the static pressure across scrubber Nos. 2 and/or 5
 - v. the water flow rate for scrubber Nos. 2 and/or 5
 - vi. the liquor temperature for scrubber No. 2
 - vii. the liquor pH for scrubber Nos. 2 and/or 5
- b. the probable cause of each deviation (excursion);
- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted (postmarked) each year by the thirty-first of January (covering October to December), the thirtieth of April (covering January to March), the thirty-first of July (covering April to June), and the thirty-first of October (covering July to September), unless an alternative schedule has been established and approved by the Cleveland Division of Air Quality (Cleveland DAQ).

- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:
0.24 lb/hr OC emissions

Applicable Compliance Method:

Compliance with the OC emission limitation shall be determined through emission testing conducted in accordance with Method 25 or 25A of 40 CFR Part 60, Appendix A, or any approved alternative testing method.

- b. Emission Limitation:
1.051 tpy OC emissions based upon a rolling, 12-month summation of the monthly emissions

Applicable Compliance Method:

Compliance shall be based on recordkeeping in d)(3), emission factors developed by the company or the most recent emissions test and the following equation:

$$1.48 \text{ lbs OC emissions/batch (emission factor(s))} \times \text{number of batches/month} \times (1 - \text{scrubber control efficiency of } 87.4\%) = \text{lbs OC emissions/month}$$

Apply the above equation to each product and then sum the emissions to obtain a total of monthly emissions (total lbs OC emissions/month). Sum the total monthly emissions (total lbs OC emissions/month) to obtain a rolling, 12-month summation. After the first twelve (12) months, each new month constitute a new 12-month summation. Divide the rolling 12-month summation by 2000 lbs.

The emission factors developed by the company were obtained from technical literature pertaining to batch process operations, and through engineering analysis of the process. The primary source of technical reference was Table A-6 known as "Average Emission Factors for Fugitive Emissions in SOCMI, source from EPA-953/R93-026" published in a book entitled, "Control of Volatile Organic Compound Emissions from Batch Processes – alternative control techniques information document (EPA-450/R-94-020)."

- c. Emission Limitation:
9.9 tons individual HAPs/year for the list of emissions units in b)(2)c., as a 12-month rolling summation.

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in d).

- d. Emission Limitation:
24.9 tons combined HAPs/year for the list of emissions units in b)(2)c., as a 12-month rolling summation.

Applicable Compliance Method:
Compliance shall be determined based upon the record keeping specified in d).

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

- a. The emissions testing shall be conducted within 3 months of the expiration of the permit.
- b. Emissions units P005, P006, P007, P008, P011, P012, P013, P014, P016, P017, P019, P024, P027, P028, P029, P030, P031, P033, P044, P047, P048, P049, P050, P051, and T004 are batch operations venting to common control devices (Scrubber Nos. 2 and/or 5). Since the individual OC, HCl, and Methanol emission rates from P013 cannot be determined due to multiple emissions units sharing common control devices, the individual allowable emission limitation from each emissions unit operating during the emission test shall be summed and compared with the test(s) results for the emissions units controlled by Scrubber Nos. 2 and/or 5 in order to determine compliance with the pound per hour limitation for P013, provided that all emissions units operating during the emission test controlled by Scrubber Nos. 2 and/or 5 are operating at or near their maximum capacities and are testing for worst case emissions during the batch process while using their worst case product.

“Batch operation” as defined in 40 CFR 63.101 is “a noncontinuous operation in which a discrete quantity or batch of feed is charged into a unit operation within a chemical manufacturing process unit and processed at one time. Batch operations includes noncontinuous operations in which equipment is fed intermittently or discontinuously. Additional raw material and withdrawal of product do not occur simultaneously in a batch operation. After each batch operation, the equipment is generally emptied before a fresh batch is started.” For purposes of this permit, this definition is being used to clarify this batch operation process.

- c. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for OC, HCl, and Methanol emissions.
- d. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): 40 CFR Part 60, Appendix A, Method 25, 25A, or 25B for OC, Method 308 for Methanol, and Method 26 or 26A for HCl, as appropriate.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an “Intent to Test” notification to the Cleveland DAQ. 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 Cleveland DAQ's refusal to accept the results of the emission test(s).

- f. Personnel from the Cleveland DAQ 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 units and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. 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 Cleveland DAQ 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 Cleveland DAQ.

g) **Miscellaneous Requirements**

- (1) None.