

Synthetic Minor Determination and/or **Netting Determination**

Permit To Install **13-04389**

A. Source Description

Research Organics Incorporated has submitted permit to install application for three emissions units.

B. Facility Emissions and Attainment Status

The permit to install application has three (3) emissions units consisting of two (2) non-insignificant emissions units and one (1) exempt, de minimis or insignificant emissions units. Cuyahoga County is designated as attainment for particulate emissions, sulfur dioxide, nitrogen oxides, carbon monoxide and lead. Cuyahoga County is designated as non-attainment for ozone.

C. Source Emissions

Research Organics seeks operational restrictions on the P044, alcohol material loading rack and T013, alcohol material storage tank. The emissions unit P045, 300 kw diesel electric generator is exempt from permit to install pursuant to OAC rule 3745-31-03(A)(4)(a). Based upon 8760 hours per year, potential methanol emissions would exceed 10 tons per year. This would subject the facility to Title V permit and MACT rule requirements. Restricting the volume throughput of the loading operation would restrict the volume throughput of emissions unit T013 and the three other existing storage tanks. The volume throughput of the loading rack and the new storage tank will be restricted in order to limit the facility wide methanol emissions to less than 10 tons per year.

However, there are other emissions units at Research Organics Incorporated. The facility has submitted a FESOP application in order to address all emissions units at this facility.

D. Conclusion

With the federally enforceable permit terms and conditions limiting the volume throughput of alcohol material, this permit is a "Synthetic Minor" to restrict the potential to emit for methanol for these emissions units. Total facility emissions will be restricted through a Federally Enforceable State Operating Permit (FESOP) to the following emission limitations: less than 10 tons per year of any single HAP, less than 25 tons per year of combined HAPs, and less than 100 tpy for each criteria pollutant that has the potential to emit greater than 100 tons/year. The issuance of the FESOP will keep this facility out of MACT and Title V permitting requirements.



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL
CUYAHOGA COUNTY**

CERTIFIED MAIL

Street Address:

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

Mailing Address:

Lazarus Gov. Center

Application No: 13-04389

Fac ID: 1318172081

DATE: 2/1/2005

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

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$300** will be due. Please do not submit any payment now.

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. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

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

CC: USEPA

CLAA

PA

CUYAHOGA COUNTY

PUBLIC NOTICE
ISSUANCE OF DRAFT PERMIT TO INSTALL 13-04389 FOR AN AIR CONTAMINANT SOURCE FOR
Research Organics, Inc.

On 2/1/2005 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Research Organics, Inc.**, located at **4353 East 49th Street, Cuyahoga Heights, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 13-04389:

Emergency Generator, Hazardous Waste Storage Tank, and Loading rack for haz waste tank -- P044, T013, and P045.

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

David Hearne, Cleveland City Health Department, Division of the Environment, 1925 St. Clair Avenue,
Cleveland, OH 44114 [(216)664-2324]



**Permit To Install
Terms and Conditions**

**Issue Date: To be entered upon final issuance
Effective Date: To be entered upon final issuance**

DRAFT PERMIT TO INSTALL 13-04389

Application Number: 13-04389
Facility ID: 1318172081
Permit Fee: **To be entered upon final issuance**
Name of Facility: Research Organics, Inc.
Person to Contact: Michael McCormick
Address: 4353 East 49th Street
Cuyahoga Heights, OH 44125

Location of proposed air contaminant source(s) [emissions unit(s)]:
**4353 East 49th Street
Cuyahoga Heights, Ohio**

Description of proposed emissions unit(s):
Emergency Generator, Hazardous Waste Storage Tank, and Loading rack for haz waste tank -- P044, T013, and P045.

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

Director

Research Organics, Inc.

Facility ID: 1318172081

PTI Application: 13-04389

Issued: To be entered upon final issuance

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon 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

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PTI Application: 13-04389

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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.

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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.

Research Organics, Inc.

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14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

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

<u>Pollutant</u>	<u>Tons Per Year</u>
OC (methanol)	0.27

Part II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P044 Alcohol material loading rack equipped with caustic solution packed bed scrubber	OAC rule 3745-31-05(A)(3)	Splash loading: 1.60 lbs/hr of Organic Compound (OC) emissions.
		Bottom submerged loading: 0.662 lb/hr of OC emissions.
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C).
	OAC rule 3745-21-07(E)	This emissions unit becomes subject to OAC rule 3745-21-07(E) on any day when any volatile photochemically reactive material is transferred. See A.I.2.a below.
	OAC rule 3745-31-05(C) synthetic minor to avoid Maximum Achievable Control Technology (MACT) and Title V permit	Splash loading: 0.085 ton/yr of Organic Compound (OC) emissions as a rolling 12-month summation.
		Bottom submerged loading: 0.035 ton/yr of OC emissions as a rolling 12-month summation.
		See A.II.3 below.

2. Additional Terms and Conditions

- 2.a The permittee shall not load in any one day more than forty thousand gallons of any volatile photochemically reactive material into any tank truck, trailer, or railroad tank car from any loading facility unless the loading facility is equipped with a vapor collection and

Emissions Unit ID: P044

disposal system properly installed, in good working order, and in operation. The operation of the caustic solution packed bed scrubber shall satisfy this control requirement. Per OAC rule 3745-21-01(C)(7), volatile photochemically reactive material means any photochemically reactive material which has a vapor pressure of 1.5 pounds per square inch absolute or greater under actual storage conditions.

B. Operational Restrictions

1. During the operation of the scrubber the pH of the caustic scrubbing liquor or solution shall be maintained at 6.0 or greater. During the operation of the scrubber, the pH system shall be calibrated weekly.
2. A scrubbing liquor or solution recirculation flow rate to the scrubber of not less than three (3) gallons per minute shall be maintained.
3. This emissions unit (P044) shall be equipped with a vapor collection system whereby during the transfer of material to any delivery vessel:
 - a. all vapors displaced from the delivery vessel during loading are vented only to the vapor collection system;
 - b. all vapors collected by the vapor collection system are vented to the caustic solution packed bed scrubber system;
 - c. a means shall be provided to prevent drainage of material from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected; and
 - d. all material loading lines and vapor lines shall be equipped with fittings that are vapor tight.
4. The annual throughput of OC material shall not exceed 1,600,000 gallons, based on a rolling, 12-month summation of the throughput for each material.
 - a. To ensure enforceability during the first twelve months of operation following issuance of this permit, the permittee shall not exceed the volume throughput levels specified in the following table:

Month	Maximum Allowable Cumulative Volume Throughput of: OC Material (Gallons)
1	200,000
1- 2	400,000
1- 3	600,000
1- 4	800,000
1- 5	1,000,000
1- 6	1,200,000

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1- 7	1,400,000
1- 8	1,600,000
1- 9	1,600,000
1- 10	1,600,000
1- 11	1,600,000
1- 12	1,600,000

- b. After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual volume throughput in gallons shall be based upon the rolling, 12-month summations of the monthly volume throughput in gallons.

C. Monitoring and/or Recordkeeping Requirements

1. Wet Scrubber Monitoring and Recordkeeping Requirements

The permittee shall properly install, calibrate, operate, and maintain, in good working condition, system of monitors, in accordance with the manufacturers' recommendations, instructions and operating manuals with any modifications deemed necessary by the permittee. The monitoring devices shall be capable of accurately measuring the desired parameters. The permittee shall monitor and record the pH of the scrubber liquor or solution, and scrubbing solution recirculation rate while the emissions unit is in operation.

The permittee shall collect and record the following information each day while the scrubber is in operation:

- a. the pH of the scrubber liquor, on a once a shift basis;
 - b. the scrubbing solution recirculation rate on a once a shift basis; and
 - c. the permittee shall record, for each day, all periods of time during which the scrubber or the monitoring equipment were not in operation when the emissions unit was in operation.
2. The permittee shall maintain monthly records of the following emission information for this emissions unit:
- a. the total throughput for each type of loading of material at this emissions unit, in gallons;
 - b. the rolling, 12-month summations of the total OC material throughput for each type of loading at this emissions unit, in gallons:

$$\begin{array}{rclcl} \text{Volume throughput} & & \text{Volume throughput} & & \text{Volume throughput} \\ \text{current month,} & + & \text{previous 11 months,} & = & \text{total 12-month,} \end{array}$$

Emissions Unit ID: P044
gallons of material

gallons of material

gallons of material

- c. the total OC emissions, in tons, generated by truck loading operations identified in this permit; calculated using emission factors from A.V.1.a multiplied by the monthly throughput for each type of loading;
- d. the rolling, 12-month summation of OC emissions, in tons, generated by truck loading operations identified in this permit after the first 12 calendar months of operation following the issuance of this permit;

Air emissions current month, tons of emissions	+	Air emissions previous 11 months, tons of emissions	=	Air emissions total 12-month, tons of emissions
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D. Reporting Requirements

- 1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the following:
 - a. the rolling, 12-month restrictions on the throughput of OC material;
 - b. the rolling, 12-month emission restrictions for OC emissions generated by the truck loading operations identified in this permit.

The reports shall also document the cause of each deviation (excursion) and an explanation of any corrective actions which have been taken or will be taken to prevent a similar deviation (excursion) in the future. These reports shall be submitted within 30 days after the deviation occurs to the Cleveland Division of Air Quality and shall address the data obtained during the previous rolling, 12-month period.

2. Wet Scrubber Reporting Requirements

The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the scrubber liquor or solution pH and/or scrubbing solution recirculation rate did not comply with the requirements specified above.

The reports shall also document the cause of each deviation (excursion) and an explanation of any corrective actions which have been taken or will be taken to prevent a similar deviation (excursion) in the future. These reports shall be submitted by January 31, April 30, July 31, and October 31 of each year to the Cleveland Division of Air Quality and shall address the data obtained during the previous calendar quarter.

If no deviations (excursions) have occurred, the permittee shall submit a quarterly report which states that no deviations (excursions) have occurred during the previous calendar quarter. These reports shall be submitted by January 31, April 30, July 31, and October 31 of each year to the Cleveland Division of Air Quality and shall address the data obtained during the previous calendar quarter.

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Research

PTI A

Issued: To be entered upon final issuance

Emissions Unit ID: P044

Issued: To be entered upon final issuance

E. Testing Requirements

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

- a. Emission Limitations:
Splash loading shall not exceed 1.60 lbs OC/hr
Bottom loading shall not exceed 0.085 lb OC/hr

Applicable Compliance Method:

To calculate OC emissions for the purpose of determining compliance with the applicable emission limitations the permittee shall use the following emission factors:

0.213 lb of OC/1,000 gallons when splash loading alcohol material into delivery vessels
0.0883 lb of OC/1,000 gallons when bottom loading alcohol material into delivery vessels

The OC emissions from organic material loading shall be determined using USEPA reference document AP-42, Fifth Edition or the most recent edition of AP-42, Compilation of Air Pollution Emission Factors, Section 5.2, Equation 5.2-1 (1/95).

The emission factors shall represent the controlled emission rate using a control efficiency of 90% by weight for OC emissions for the caustic solution packed bed scrubber.

Multiply emission factor by maximum hourly volume throughput rate.

Compliance via emission stack test:

If stack testing the emission control equipment is feasible as determined by the Ohio Environmental Protection Agency or the Cleveland Division of Air Quality (Cleveland DAQ) within twelve months after the start up of this emissions unit, the permittee shall conduct or have conducted an emission test for this emissions unit in order to demonstrate compliance with the allowable OC emission rate. This test shall be conducted between the months of May and September. The emission test methods and procedures are those outlined in OAC rule 3475-21-10(E).

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 Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an

Emissions Unit ID: P044

"Intent to Test" notification to the Cleveland Division of Air Quality. 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 Division of Air Quality's refusal to accept the results of the emission test(s).

Personnel from the Cleveland Division of Air Quality 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 emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Cleveland Division of Air Quality within 30 days following the completion of the test(s).

b. Emission Limitations:

0.085 ton OC per year as a rolling, 12-month summations for the truck splash loading operations identified in this permit,

0.035 ton OC per year as a rolling, 12-month summations for the truck bottom loading operations identified in this permit.

Applicable Compliance Method:

Compliance shall be based on the record keeping in A.III.2.

F. Miscellaneous Requirements

1. The permittee will obtain Federally Enforceable State Operating Permit (FESOP) to restrict facility wide Hazardous Air Pollutants (HAPs) emissions below the Title V and MACT thresholds.
2. The following terms and conditions are federally enforceable: A.1, B.4, C.2, and D.1.
3. 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 compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees 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 changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

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Part II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
T013 - 8000 gallon alcohol material storage tank equipped with submerged filling and caustic packed bed scrubber	OAC rule 3745-31-05(A)(3) OAC rule 3745-21-07(D) OAC rule 3745-31-05(C) synthetic minor to avoid Maximum Achievable Control Technology (MACT) and Title V permit	The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C). This emissions unit becomes subject to OAC 3745-21-07(D) on any day when any volatile photochemically reactive material is transferred. See A.I.2.a below. OC (methanol) emissions from this storage tank shall not exceed 0.15 ton per rolling, 12-month period. See A.II.3 below.

2. Additional Terms and Conditions

- 2.a For the processing of volatile photochemically reactive material, this emissions unit shall either be equipped with a permanent submerged fill pipe, loaded through the use of a portable loading tube which can be inserted below the liquid level line during loading operations, or is fitted with a vapor recovery system as described in OAC rule 3745-21-07(D)(1)(b). The operation of the caustic packed bed scrubber shall satisfy the control requirements of this rule provided the scrubber reduces the emission of organic materials into the atmosphere by at least ninety per cent by weight. Per OAC rule 3745-21-01(C)(7), volatile photochemically reactive material means any photochemically reactive material which has a vapor pressure of 1.5 pounds per square inch absolute or greater under actual storage conditions.

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Research Organics, Inc.
PTI Application: 12 04280
Issued

Facility ID: 1318172081

Emissions Unit ID: T013

Issued: To be entered upon final issuance

B. Operational Restrictions

1. During the operation of the scrubber the pH of the caustic scrubbing liquor or solution shall be maintained at 6.0 or greater. During the operation of the scrubber, the pH system shall be calibrated weekly.
2. A scrubbing liquor or solution recirculation flow rate to the scrubber of not less than three (3) gallons per minute shall be maintained.
3. The annual throughput of OC material shall not exceed 1,600,000 gallons, based on a rolling, 12-month summation of the throughput for each material.
 - a. To ensure enforceability during the first twelve months of operation following issuance of this permit, the permittee shall not exceed the volume throughput levels specified in the following table:

Month	Maximum Allowable Cumulative Volume Throughput of: OC Material (Gallons)
1	200,000
1- 2	400,000
1- 3	600,000
1- 4	800,000
1- 5	1,000,000
1- 6	1,200,000
1- 7	1,400,000
1- 8	1,600,000
1- 9	1,600,000
1- 10	1,600,000
1- 11	1,600,000
1- 12	1,600,000

- b. After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual volume throughput in gallons shall be based upon the rolling, 12-month summations of the monthly volume throughput in gallons.

C. Monitoring and/or Recordkeeping Requirements

1. Wet Scrubber Monitoring and Recordkeeping Requirements
The permittee shall properly install, calibrate, operate, and maintain, in good working condition, system of monitors, in accordance with the manufacturers' recommendations, instructions and

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operating manuals with any modifications deemed necessary by the permittee. The monitoring devices shall be capable of accurately measuring the desired parameters. The permittee shall monitor and record the pH of the scrubber liquor or solution, and scrubbing solution recirculation rate while the emissions unit is in operation.

The permittee shall collect and record the following information each day while the scrubber is in operation:

- a. the pH of the scrubber liquor, on a once a shift basis;
- b. the scrubbing solution recirculation rate on a once a shift basis; and
- c. the permittee shall record, for each day, all periods of time during which the scrubber or the monitoring equipment were not in operation when the emissions unit was in operation.

2. The permittee shall maintain monthly records of the following emission information for this emissions unit:

- a. the total throughput of material at this emissions unit, in gallons;
- b. the rolling, 12-month summations of the total OC material throughput at this emissions unit, in gallons:

Volume throughput current month, gallons of material	+	Volume throughput previous 11 months, gallons of material	=	Volume throughput total 12-month, gallons of material
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- c. the total OC emissions, in tons, generated by truck loading operations identified in this permit calculated using emission factor from E.1.a multiplied by the monthly throughput;
- d. the rolling, 12-month summation of OC emissions, in tons, generated by truck loading operations identified in this permit after the first 12 calendar months of operation following the issuance of this permit;

Air emissions current month, tons of emissions	+	Air emissions previous 11 months, tons of emissions	=	Air emissions total 12-month, tons of emissions
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D. Reporting Requirements

1. Wet Scrubber Reporting Requirements

Emissions Unit ID: T013

The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the scrubber liquor or solution pH and/or scrubbing solution recirculation rate did not comply with the requirements specified above.

The reports shall also document the cause of each deviation (excursion) and an explanation of any corrective actions which have been taken or will be taken to prevent a similar deviation (excursion) in the future. These reports shall be submitted by January 31, April 30, July 31, and October 31 of each year to the Cleveland Division of Air Quality and shall address the data obtained during the previous calendar quarter.

If no deviations (excursions) have occurred, the permittee shall submit a quarterly report which states that no deviations (excursions) have occurred during the previous calendar quarter. These reports shall be submitted by January 31, April 30, July 31, and October 31 of each year to the Cleveland Division of Air Quality and shall address the data obtained during the previous calendar quarter.

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the following:
 - a. the rolling, 12-month restrictions on the throughput of OC material;
 - b. the rolling, 12-month emissions restriction for OC emissions generated by this emissions unit.

The reports shall also document the cause of each deviation (excursion) and an explanation of any corrective actions which have been taken or will be taken to prevent a similar deviation (excursion) in the future. These reports shall be submitted within 30 days after the deviation occurs to the Cleveland Division of Air Quality and shall address the data obtained during the previous rolling, 12-month period.

E. Testing Requirements

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

- a. Emission Limitation:

0.15 ton OC per rolling, 12-month period for storage tank identified in this permit.

Applicable Compliance Method:

Compliance with the emission limitation shall be demonstrated by performing annual OC emission calculations using the latest version of the USEPA's TANKS or USEPA reference document AP-42, Fifth Edition or the most recent edition of AP-42, Compilation of Air Pollution Emission Factors, Section 7.1, Organic Liquid Storage Tanks (9/97). Multiply the difference of 1 and emission control efficiency by the emission rate from TANKS, in pounds per year, and divided by the 2000 lbs/ton to convert to tons

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per year. The rolling, 12-month throughput processed shall be determined by summing the monthly throughput of each material in accordance with the recordkeeping from Section C.2.

F. Miscellaneous Requirements

1. The permittee will obtain Federally Enforceable State Operating Permit (FESOP) to restrict facility wide Hazardous Air Pollutants (HAPs) emissions below the Title V and MACT thresholds.
2. The following terms and conditions are federally enforceable: A.1, B.3, C.2, and D.2.
3. 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 compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees 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 changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.