

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

Permit To Install **13-04531**

**A. Source Description**

Qualico is a facility that manufactures roofing products. The facility consists of four (4), 400 gallon mixers. In each case approximately 1,000 pounds (+/- 100 lbs, depending on the final product, 1,100 lbs = worst case) of a premixed solvent mixture (80% Regular Mineral Spirits and 20% Aromatic 100 solvent) is added to the mixer bowl and dry ingredients are added to the solvent until the product formulation is reached and fully mixes to a homogenous state. Maximum operation would be all four mixers running and, at a four hour batch cycle, four batches could be produced per day (1460 batches per year). An average representation is two mixers running one batch per day, for a total of two batches per day, facility wide. The mixers can and are used interchangeably. They are vented through one common stack with multiple pick-up points, one over each respective mixer. Also, there are no clean-up materials used in this operation. All solvents employed are used in the final products.

**B. Facility Emissions and Attainment Status**

The facility is comprised of four emissions units (P001, P002, P003, and P004). Actual emissions from emissions units P001, P002, P003, and P004 are 22.80 tons VOC/year. Actual emissions from each individual emissions unit is 5.70 tons VOC/year.

The worst case potential to emit per emissions unit is 257 tons VOC per year using a worst case VOC content of 0.88 lb VOC lost/gallon (one very limited product). The worst case potential emissions of VOCs for the facility (P001, P002, P003, and P004) is 1027.84 tons VOC/year.

Actual HAP emissions for the facility (P001, P002, P003, and P004) are 1.46 tons/year of 1,2,4-Trimethylbenzene, 0.14 ton/year of Xylene, and 0.075 ton/year of Cumene. Potential HAP emissions from emissions units P001, P002, P003, and P004 are 65.78 tons/year of 1,2,4-Trimethylbenzene, 6.17 tons/year of Xylene, and 3.08 tons/year of Cumene.

Cuyahoga County is non-attainment for ozone. Therefore, the facility has chosen to restrict the facility's volatile organic compound (VOC) emissions to 40 tons/year and hazardous air pollutant (HAP) emissions to less than 9.5 for an individual HAP and 24.5 for a combination of HAPs in order to avoid non-attainment new source review (NSR) and Title V.

**C. Source Emissions**

See above

**D. Conclusion**

The facility is a major source for VOC and HAP emissions. However, they are requesting synthetic minor status for both VOCs and HAPs based on the difference between the PTE and actual emissions. The PTE is exceptionally higher than the actual emissions, which are based on actual production data. The allowable limits are more than achievable by the facility, and if complied with, they will not allow any HAP or VOC major source non-attainment NSR threshold to be triggered. The facility has accepted volatile organic material usage and VOC emissions restrictions of less than 40 tons/year, individual HAP usage and emissions of less

than 9.5 tons/year, and combined HAP usage and emissions of less than 24.5 tons/year.



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: 13-04531**

**Fac ID: 1318008437**

**DATE: 3/30/2006**

Qualico  
J. Michael Grace  
3201 East 66th Street  
Cleveland, OH 44127

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 **\$1600** 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,

A handwritten signature in cursive script that reads "Michael W. Ahern".

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 13-04531 FOR AN AIR CONTAMINANT SOURCE FOR  
Qualico**

On 3/30/2006 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Qualico**, located at **2101 East 66th Street, Cleveland, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 13-04531:

**Roof coating ventilation system -- P001.**

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 13-04531**

Application Number: 13-04531  
Facility ID: 1318008437  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: Qualico  
Person to Contact: J. Michael Grace  
Address: 3201 East 66th Street  
Cleveland, OH 44127

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**2101 East 66th Street  
Cleveland, Ohio**

Description of proposed emissions unit(s):  
**Roof coating ventilation system -- P001.**

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

**Qualico****Facility ID: 1318008437****PTI Application: 13-04531****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,

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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

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Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

**10. Public Disclosure**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

**11. Applicability**

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

**12. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

**13. Source Operation and Operating Permit Requirements After Completion of Construction**

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This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

#### 14. Construction Compliance Certification

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

#### 15. Fees

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

### B. Permit to Install Summary of Allowable Emissions

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
Volatile Organic Compound	40.0 tpy
Single HAP	9.5 tpy
Multiple HAPs	24.5 tpy

**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>
P001 - One (1) 400 gallon batch mixer, used for manufacturing roofing products	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 352.0 lbs/batch and 40.0 tons/year. The individual unit allowable can't be any higher than the 40 ton/yr annual restriction. When the grouped limit is above the single unit PTE, we lower the unit tons/yr to the same number.
	OAC rule 3745-21-07(G)(2)	The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-07(G)(2) and 3745-31-05(C).  See Additional Terms and Conditions A.2.d and A.2.e below.
	OAC rule 3745-31-05(C) Synthetic Minor to avoid Title V and Nonattainment NSR	Exempt; See Additional Terms and Conditions A.2.c below.  See Additional Terms and Conditions A.2.a and A.2.b below.

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**PTI A**

**Issued: To be entered upon final issuance**

Emissions Unit ID: **P001**

Issued: To be entered upon final issuance

**2. Additional Terms and Conditions**

- 2.a** VOC emissions from emissions units P001, P002, P003, and P004 shall not exceed 40.0 tons per year based upon a rolling, 12-month summation of emissions calculated from the production figures.
- 2.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 P001, P002, P003, and P004 shall not exceed 9.5 tons/year for any individual HAP or 24.5 tons/year for an combination of HAPs. Compliance with the above limitations shall be based upon a rolling, 12-month summation.
- 2.c** This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G)(2) based on the fact that there is no chemical reaction taking place; there is only mixing occurring in this process.
- 2.d** This emission unit operates using a batch cycle. The maximum amount of time for one batch cycle for each mixer is four hours, with a maximum number of batches produced per year of 1,460.
- 2.e** The short-term (lbs/batch) emissions limitations for VOC emissions from this emissions unit were established based on potential to emit; therefore, no record keeping and/or reporting requirements are needed for these emissions limitations.

**B. Operational Restrictions**

- 1. The maximum volatile organic material usage from emissions units P001, P002, P003, and P004 shall not exceed 40.0 tons per year, based upon a rolling, 12-month summation of the monthly emissions.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the volatile organic material usage levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Volatile Organic Material Usage of 40.0 (Tons)</u>
1	13.0

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PTI A

Emissions Unit ID: **P001**

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1-2	16.0
1-3	19.0
1-4	22.0
1-5	25.0
1-6	28.0
1-7	31.0
1-8	34.0
1-9	37.0
1-10	40.0
1-11	40.0
1-12	40.0

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual volatile organic material usage limitation shall be based upon a rolling, 12-month summation of the volatile organic material usage figures.

**C. Monitoring and/or Record keeping Requirements**

1. The permittee shall collect and record the following information each month for emissions units P001, P002, P003, and P004:
  - a. the company identification of each final product produced;
  - b. the organic compound content of each initial solvent, in pounds per gallon;
  - c. the organic compound content of each final product produced, in pounds per gallon;
  - d. the total volume produced, in gallons per batch;
  - e. the emission factor for each product produced (b-c), in pounds of organic compound lost per gallon produced, or the most recent emissions factor developed from stack testing;
  - f. the total emission for each batch produced (d x e), in pounds; and
  - g. the rolling, 12-month summation of volatile organic material usage and VOC emissions from emissions units P001, P002, P003, and P004(sum of (f) for the previous 12-months), in tons.

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Issue

Facility ID: 1318008437

Emissions Unit ID: P001

2. The permittee shall maintain monthly records of the following information for emissions units P001, P002, P003, and P004:
  - a. the name and identification number of each HAP containing material employed;
  - b. the individual HAP content for each HAP, in pounds of individual HAP per pound, or gallon, of material;
  - c. the number of pounds, or gallons, of each HAP containing material employed;
  - d. the total individual HAP usage for each HAP from all HAP containing materials, in pounds or tons per month [for each HAP the sum of (b) times (c) for each material]; and
  - e. the updated rolling, 12 month summation of usage for each individual HAP, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months. For the first twelve months following the issuance of the permit, this shall be a cumulative total for all months since the issuance of the PTI.
  
3. The permit to install for this emissions unit was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application of SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Stoddard Solvent

$$\text{TLV (mg/m}^3\text{)} = (100 \text{ ppm})(140.00)/24.45$$

$$= 572.6 \text{ mg/m}^3$$

Maximum Hourly Emission Rate (lbs/hr): 281.6

Predicted 1-Hour Maximum Ground-Level

Concentration ( $\mu\text{g/m}^3$ ): 5,941.0MAGLC ( $\mu\text{g/m}^3$ ): 13,633.3

Pollutant: 1,2,4-trimethylbenzene (32% of 20% of the mixture, by weight)

$$\text{TLV (mg/m}^3\text{)} = (25 \text{ ppm})(120.19)/24.45$$

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= 122.89 mg/m<sup>3</sup>

Maximum Hourly Emission Rate (lbs/hr): 22.5

Predicted 1-Hour Maximum Ground-Level

Concentration (µg/m<sup>3</sup>): 474.7

MAGLC (µg/m<sup>3</sup>): 2926.0

4. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
  - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emissions of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)", than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
5. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.
6. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emission unit will still satisfy the "Air Toxic Policy."

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- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month volatile organic material usage and VOC emission limitation and, for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
2. The permittee shall submit deviation (excursion) reports which include an identification of each month during which the rolling, 12-month individual HAP material usage and emissions exceed 9.5 tons/year or any combination of HAP material usage and emissions exceed 24.5 tons/year, based on a rolling, 12 month summation, and the actual rolling, 12 month individual HAP emissions for each such month. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

**E. Testing Requirements**

- a. Emission Limitation

352.0 lbs VOC/batch

Applicable Compliance Method

The short-term emission limitation is based upon the emissions unit's potential to emit. The potential to emit calculation, as shown in the following equation, was derived using the worst case emissions factor (obtained through company VOC content testing and mass balance calculations) and maximum capacity of the emissions unit.

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$$(\text{Max PWR}) \times (\text{EF}) = 352.0 \text{ lbs VOC/batch}$$

Where:

Max PWR = Maximum Process Weight Rate, 400 lbs/batch

EF = Emissions factor developed from worst case product, 0.88 lbs VOC/gal

U.S. EPA Method 24 shall be used to determine the VOC content for each coating material produced. If it is determined to the satisfaction of the Director that each coating formulation data is equivalent to the Method 24 results, formulation data based on weight percentage of VOC components in the coating may be used. In the event of any inconsistency between a Method 24 test and the facility's formulation data, the Method 24 test will govern.

If required by Ohio EPA of the Cleveland Division of Air Quality, compliance with the VOC emission limitation shall be determined through emission testing conducted in accordance with U.S. EPA Method 25 or 25A of 40 CFR Part 60, Appendix A, or any Ohio EPA approved alternative testing method.

b. Emission Limitation

40.0 tons VOC/year, as a 12 month rolling summation

Applicable Compliance Method

Compliance shall be determined based on the record keeping requirements in section C.1.

d. Emission Limitation

9.5 tons individual HAPs/year for emissions units P001, P002, P003, and P004, as a 12 month rolling summation

Applicable Compliance Method

Compliance shall be determined based upon the record keeping specified in section C.2.

e. Emission Limitation

24.5 tons combination HAPs/year for emissions units P001, P002, P003, and P004, as a 12 month rolling summation

Applicable Compliance Method

Compliance shall be determined based upon the record keeping specified in section C.2.

**F. Miscellaneous Requirements**

1. 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 amount or composition of the materials, or use of new materials, that would cause the maximum potential emissions to increase above permit allowable limits, may require the permittee to apply for and obtain a new permit to install.

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PTI A

Emissions Unit ID: **P002**

Issued: To be entered upon final issuance

**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>
P002 - One (1) 400 gallon batch mixer, used for manufacturing roofing products	OAC rule 3745-31-05(A)(3)	<p>Volatile organic compound (VOC) emissions shall not exceed 352.0 lbs/batch and 40.0 tons/year.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-07(G)(2) and 3745-31-05(C).</p> <p>See Additional Terms and Conditions A.2.d and A.2.e below.</p>
	OAC rule 3745-21-07(G)(2)	<p>Exempt; See Additional Terms and Conditions A.2.c below.</p>
	OAC rule 3745-31-05(C) Synthetic Minor to avoid Title V and Nonattainment NSR	<p>See Additional Terms and Conditions A.2.a and A.2.b below.</p>

**2. Additional Terms and Conditions**

- 2.a VOC emissions from emissions units P001, P002, P003, and P004 shall not exceed 40.0 tons per year based upon a rolling, 12-month summation of emissions calculated from the production figures.
- 2.b The total allowable usage and emissions of Hazardous Air Pollutants (HAPs), as

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PTI A

Emissions Unit ID: **P002**

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identified in Section 112(b) of Title III of the Clean Air Act, from emissions units P001, P002, P003, and P004 shall not exceed 9.5 tons/year for any individual HAP or 24.5 tons/year for an combination of HAPs. Compliance with the above limitations shall be based upon a rolling, 12-month summation.

- 2.c** This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G)(2) based on the fact that there is no chemical reaction taking place; there is only mixing occurring in this process.
- 2.d** This emission unit operates using a batch cycle. The maximum amount of time for one batch cycle for each mixer is four hours, with a maximum number of batches produced per year of 1,460.
- 2.e** The short-term (lbs/batch) emissions limitations for VOC emissions from this emissions unit were established based on potential to emit; therefore, no record keeping and/or reporting requirements are needed for these emissions limitations.

**B. Operational Restrictions**

- 1. The maximum volatile organic material usage from emissions units P001, P002, P003, and P004 shall not exceed 40.0 tons per year, based upon a rolling, 12-month summation of the monthly emissions.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the volatile organic material usage levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Volatile Organic Material Usage of 40.0 (Tons)</u>
1	13.0
1-2	16.0
1-3	19.0
1-4	22.0
1-5	25.0
1-6	28.0
1-7	31.0
1-8	34.0
1-9	37.0
1-10	40.0

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1-11	40.0
1-12	40.0

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual volatile organic material usage limitation shall be based upon a rolling, 12-month summation of the volatile organic material usage figures.

### **C. Monitoring and/or Record keeping Requirements**

1. The permittee shall collect and record the following information each month for emissions units P001, P002, P003, and P004:
  - a. the company identification of each final product produced;
  - b. the organic compound content of each initial solvent, in pounds per gallon;
  - c. the organic compound content of each final product produced, in pounds per gallon;
  - d. the total volume produced, in gallons per batch;
  - e. the emission factor for each product produced (b-c), in pounds of organic compound lost per gallon produced, or the most recent emissions factor developed from stack testing;
  - f. the total emission for each batch produced (d x e), in pounds; and
  - g. the rolling, 12-month summation of volatile organic material usage and VOC emissions from emissions units P001, P002, P003, and P004(sum of (f) for the previous 12-months), in tons.
2. The permittee shall maintain monthly records of the following information for emissions units P001, P002, P003, and P004:
  - a. the name and identification number of each HAP containing material employed;
  - b. the individual HAP content for each HAP, in pounds of individual HAP per pound, or gallon, of material;
  - c. the number of pounds, or gallons, of each HAP containing material employed;

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- d. the total individual HAP usage for each HAP from all HAP containing materials, in pounds or tons per month [for each HAP the sum of (b) times (c) for each material]; and
  - e. the updated rolling, 12 month summation of usage for each individual HAP, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months. For the first twelve months following the issuance of the permit, this shall be a cumulative total for all months since the issuance of the PTI.
3. The permit to install for this emissions unit was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application of SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):
- Pollutant: Stoddard Solvent  
 $TLV (mg/m^3) = (100 \text{ ppm})(140.00)/24.45$   
 $= 572.6 \text{ mg/m}^3$
- Maximum Hourly Emission Rate (lbs/hr): 281.6  
 Predicted 1-Hour Maximum Ground-Level  
 Concentration ( $\mu\text{g}/\text{m}^3$ ): 5,941.0  
 MAGLC ( $\mu\text{g}/\text{m}^3$ ): 13,633.3
- Pollutant: 1,2,4-trimethylbenzene (32% of 20% of the mixture, by weight)  
 $TLV (mg/m^3) = (25 \text{ ppm})(120.19)/24.45$   
 $= 122.89 \text{ mg/m}^3$   
 Maximum Hourly Emission Rate (lbs/hr): 22.5  
 Predicted 1-Hour Maximum Ground-Level  
 Concentration ( $\mu\text{g}/\text{m}^3$ ): 474.7  
 MAGLC ( $\mu\text{g}/\text{m}^3$ ): 2926.0
4. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or

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not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emissions of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)", than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
5. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.
6. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emission unit will still satisfy the "Air Toxic Policy."
- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model

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runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month volatile organic material usage and VOC emission limitation and, for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
2. The permittee shall submit deviation (excursion) reports which include an identification of each month during which the rolling, 12-month individual HAP material usage and emissions exceed 9.5 tons/year or any combination of HAP material usage and emissions exceed 24.5 tons/year, based on a rolling, 12 month summation, and the actual rolling, 12 month individual HAP emissions for each such month. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

**E. Testing Requirements****a. Emission Limitation**

352.0 lbs VOC/batch

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Applicable Compliance Method

The short-term emission limitation is based upon the emissions unit's potential to emit. The potential to emit calculation, as shown in the following equation, was derived using the worst case emissions factor (obtained through company VOC content testing and mass balance calculations) and maximum capacity of the emissions unit.

$$(\text{Max PWR}) \times (\text{EF}) = 352.0 \text{ lbs VOC/batch}$$

Where:

Max PWR = Maximum Process Weight Rate, 400 lbs/batch

EF = Emissions factor developed from worst case product, 0.88 lbs VOC/gal

U.S. EPA Method 24 shall be used to determine the VOC content for each coating material produced. If it is determined to the satisfaction of the Director that each coating formulation data is equivalent to the Method 24 results, formulation data based on weight percentage of VOC components in the coating may be used. In the event of any inconsistency between a Method 24 test and the facility's formulation data, the Method 24 test will govern.

If required by Ohio EPA of the Cleveland Division of Air Quality, compliance with the VOC emission limitation shall be determined through emission testing conducted in accordance with U.S. EPA Method 25 or 25A of 40 CFR Part 60, Appendix A, or any Ohio EPA approved alternative testing method.

b. Emission Limitation

40.0 tons VOC/year, as a 12 month rolling summation

Applicable Compliance Method

Compliance shall be determined based on the record keeping requirements in section C.1.

d. Emission Limitation

9.5 tons individual HAPs/year for emissions units P001, P002, P003, and P004, as a 12 month rolling summation

Applicable Compliance Method

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Compliance shall be determined based upon the record keeping specified in section C.2.

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e. Emission Limitation

24.5 tons combination HAPs/year for emissions units P001, P002, P003, and P004, as a 12 month rolling summation

Applicable Compliance Method

Compliance shall be determined based upon the record keeping specified in section C.2.

**F. Miscellaneous Requirements**

1. 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 amount or composition of the materials, or use of new materials, that would cause the maximum potential emissions to increase above permit allowable limits, may require the permittee to apply for and obtain a new permit to install.



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- 2.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 P001, P002, P003, and P004 shall not exceed 9.5 tons/year for any individual HAP or 24.5 tons/year for an combination of HAPs. Compliance with the above limitations shall be based upon a rolling, 12-month summation.
- 2.c** This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G)(2) based on the fact that there is no chemical reaction taking place; there is only mixing occurring in this process.
- 2.d** This emission unit operates using a batch cycle. The maximum amount of time for one batch cycle for each mixer is four hours, with a maximum number of batches produced per year of 1,460.
- 2.e** The short-term (lbs/batch) emissions limitations for VOC emissions from this emissions unit were established based on potential to emit; therefore, no record keeping and/or reporting requirements are needed for these emissions limitations.

**B. Operational Restrictions**

1. The maximum volatile organic material usage from emissions units P001, P002, P003, and P004 shall not exceed 40.0 tons per year, based upon a rolling, 12-month summation of the monthly emissions.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the volatile organic material usage levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Volatile Organic Material Usage of 40.0 (Tons)</u>
1	13.0
1-2	16.0
1-3	19.0
1-4	22.0
1-5	25.0
1-6	28.0
1-7	31.0
1-8	34.0
1-9	37.0

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1-10	40.0
1-11	40.0
1-12	40.0

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual volatile organic material usage limitation shall be based upon a rolling, 12-month summation of the volatile organic material usage figures.

### **C. Monitoring and/or Record keeping Requirements**

1. The permittee shall collect and record the following information each month for emissions units P001, P002, P003, and P004:
  - a. the company identification of each final product produced;
  - b. the organic compound content of each initial solvent, in pounds per gallon;
  - c. the organic compound content of each final product produced, in pounds per gallon;
  - d. the total volume produced, in gallons per batch;
  - e. the emission factor for each product produced (b-c), in pounds of organic compound lost per gallon produced, or the most recent emissions factor developed from stack testing;
  - f. the total emission for each batch produced (d x e), in pounds; and
  - g. the rolling, 12-month summation of volatile organic material usage and VOC emissions from emissions units P001, P002, P003, and P004(sum of (f) for the previous 12-months), in tons.
  
2. The permittee shall maintain monthly records of the following information for emissions units P001, P002, P003, and P004:
  - a. the name and identification number of each HAP containing material employed;
  - b. the individual HAP content for each HAP, in pounds of individual HAP per pound, or gallon, of material;

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- c. the number of pounds, or gallons, of each HAP containing material employed;
  - d. the total individual HAP usage for each HAP from all HAP containing materials, in pounds or tons per month [for each HAP the sum of (b) times (c) for each material]; and
  - e. the updated rolling, 12 month summation of usage for each individual HAP, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months. For the first twelve months following the issuance of the permit, this shall be a cumulative total for all months since the issuance of the PTI.
  
3. The permit to install for this emissions unit was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application of SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):
 

Pollutant: Stoddard Solvent  
 TLV (mg/m<sup>3</sup>): = (100 ppm)(140.00)/24.45  
                   = 572.6 mg/m<sup>3</sup>  
 Maximum Hourly Emission Rate (lbs/hr): 281.6  
 Predicted 1-Hour Maximum Ground-Level  
 Concentration (µg/m<sup>3</sup>): 5,941.0  
 MAGLC (µg/m<sup>3</sup>): 13,633.3

Pollutant: 1,2,4-trimethylbenzene (32% of 20% of the mixture, by weight)  
 TLV (mg/m<sup>3</sup>): = (25 ppm)(120.19)/24.45  
                   = 122.89 mg/m<sup>3</sup>  
 Maximum Hourly Emission Rate (lbs/hr): 22.5  
 Predicted 1-Hour Maximum Ground-Level  
 Concentration (µg/m<sup>3</sup>): 474.7  
 MAGLC (µg/m<sup>3</sup>): 2926.0
  
4. Physical changes to or changes in the method of operation of the emissions unit after

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its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emissions of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)", than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
5. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.
6. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emission unit will still satisfy the "Air Toxic Policy."
- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

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- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month volatile organic material usage and VOC emission limitation and, for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
2. The permittee shall submit deviation (excursion) reports which include an identification of each month during which the rolling, 12-month individual HAP material usage and emissions exceed 9.5 tons/year or any combination of HAP material usage and emissions exceed 24.5 tons/year, based on a rolling, 12 month summation, and the actual rolling, 12 month individual HAP emissions for each such month. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

**E. Testing Requirements**

- a. Emission Limitation

352.0 lbs VOC/batch

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Applicable Compliance Method

The short-term emission limitation is based upon the emissions unit's potential to emit. The potential to emit calculation, as shown in the following equation, was derived using the worst case emissions factor (obtained through company VOC content testing and mass balance calculations) and maximum capacity of the emissions unit.

$$(\text{Max PWR}) \times (\text{EF}) = 352.0 \text{ lbs VOC/batch}$$

Where:

Max PWR = Maximum Process Weight Rate, 400 lbs/batch

EF = Emissions factor developed from worst case product, 0.88 lbs VOC/gal

U.S. EPA Method 24 shall be used to determine the VOC content for each coating material produced. If it is determined to the satisfaction of the Director that each coating formulation data is equivalent to the Method 24 results, formulation data based on weight percentage of VOC components in the coating may be used. In the event of any inconsistency between a Method 24 test and the facility's formulation data, the Method 24 test will govern.

If required by Ohio EPA of the Cleveland Division of Air Quality, compliance with the VOC emission limitation shall be determined through emission testing conducted in accordance with U.S. EPA Method 25 or 25A of 40 CFR Part 60, Appendix A, or any Ohio EPA approved alternative testing method.

b. Emission Limitation

40.0 tons VOC/year, as a 12 month rolling summation

Applicable Compliance Method

Compliance shall be determined based on the record keeping requirements in section C.1.

d. Emission Limitation

9.5 tons individual HAPs/year for emissions units P001, P002, P003, and P004, as a 12 month rolling summation

Applicable Compliance Method

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Compliance shall be determined based upon the record keeping specified in section C.2.

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Emissions Unit ID: **P003****Issued: To be entered upon final issuance**e. Emission Limitation

24.5 tons combination HAPs/year for emissions units P001, P002, P003, and P004, as a 12 month rolling summation

Applicable Compliance Method

Compliance shall be determined based upon the record keeping specified in section C.2.

**F. Miscellaneous Requirements**

1. 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 amount or composition of the materials, or use of new materials, that would cause the maximum potential emissions to increase above permit allowable limits, may require the permittee to apply for and obtain a new permit to install.

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Emissions Unit ID: **P004**

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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>
P004 - One (1) 400 gallon batch mixer, used for manufacturing roofing products	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 352.0 lbs/batch and 40 tons/year.
	OAC rule 3745-21-07(G)(2)	The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-07(G)(2) and 3745-31-05(C).  See Additional Terms and Conditions A.2.d and A.2.e below.
	OAC rule 3745-31-05(C) Synthetic Minor to avoid Title V and Nonattainment NSR	Exempt; See Additional Terms and Conditions A.2.c below.  See Additional Terms and Conditions A.2.a and A.2.b below.

**2. Additional Terms and Conditions**

- 2.a VOC emissions from emissions units P001, P002, P003, and P004 shall not exceed 40.0 tons per year based upon a rolling, 12-month summation of emissions calculated from the production figures.

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- 2.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 P001, P002, P003, and P004 shall not exceed 9.5 tons/year for any individual HAP or 24.5 tons/year for an combination of HAPs. Compliance with the above limitations shall be based upon a rolling, 12-month summation.
- 2.c** This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G)(2) based on the fact that there is no chemical reaction taking place; there is only mixing occurring in this process.
- 2.d** This emission unit operates using a batch cycle. The maximum amount of time for one batch cycle for each mixer is four hours, with a maximum number of batches produced per year of 1,460.
- 2.e** The short-term (lbs/batch) emissions limitations for VOC emissions from this emissions unit were established based on potential to emit; therefore, no record keeping and/or reporting requirements are needed for these emissions limitations.

## **B. Operational Restrictions**

1. The maximum volatile organic material usage from emissions units P001, P002, P003, and P004 shall not exceed 40.0 tons per year, based upon a rolling, 12-month summation of the monthly emissions.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the volatile organic material usage levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Volatile Organic Material Usage of 40.0 (Tons)</u>
1	13.0
1-2	16.0
1-3	19.0
1-4	22.0
1-5	25.0
1-6	28.0
1-7	31.0
1-8	34.0

Emissions Unit ID: **P004**

1-9	37.0
1-10	40.0
1-11	40.0
1-12	40.0

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual volatile organic material usage limitation shall be based upon a rolling, 12-month summation of the volatile organic material usage figures.

### C. Monitoring and/or Record keeping Requirements

1. The permittee shall collect and record the following information each month for emissions units P001, P002, P003, and P004:
  - a. the company identification of each final product produced;
  - b. the organic compound content of each initial solvent, in pounds per gallon;
  - c. the organic compound content of each final product produced, in pounds per gallon;
  - d. the total volume produced, in gallons per batch;
  - e. the emission factor for each product produced (b-c), in pounds of organic compound lost per gallon produced, or the most recent emissions factor developed from stack testing;
  - f. the total emission for each batch produced (d x e), in pounds; and
  - g. the rolling, 12-month summation of volatile organic material usage and VOC emissions from emissions units P001, P002, P003, and P004(sum of (f) for the previous 12-months), in tons.
  
2. The permittee shall maintain monthly records of the following information for emissions units P001, P002, P003, and P004:
  - a. the name and identification number of each HAP containing material employed;
  - b. the individual HAP content for each HAP, in pounds of individual HAP per pound, or gallon, of material;

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- c. the number of pounds, or gallons, of each HAP containing material employed;
  - d. the total individual HAP usage for each HAP from all HAP containing materials, in pounds or tons per month [for each HAP the sum of (b) times (c) for each material]; and
  - e. the updated rolling, 12 month summation of usage for each individual HAP, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months. For the first twelve months following the issuance of the permit, this shall be a cumulative total for all months since the issuance of the PTI.
3. The permit to install for this emissions unit was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application of SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Stoddard Solvent

$$\begin{aligned} \text{TLV (mg/m}^3\text{)} &= (100 \text{ ppm})(140.00)/24.45 \\ &= 572.6 \text{ mg/m}^3 \end{aligned}$$

Maximum Hourly Emission Rate (lbs/hr): 281.6

Predicted 1-Hour Maximum Ground-Level

Concentration ( $\mu\text{g/m}^3$ ): 5,941.0

MAGLC ( $\mu\text{g/m}^3$ ): 13,633.3

Pollutant: 1,2,4-trimethylbenzene (32% of 20% of the mixture, by weight)

$$\begin{aligned} \text{TLV (mg/m}^3\text{)} &= (25 \text{ ppm})(120.19)/24.45 \\ &= 122.89 \text{ mg/m}^3 \end{aligned}$$

Maximum Hourly Emission Rate (lbs/hr): 22.5

Predicted 1-Hour Maximum Ground-Level

Concentration ( $\mu\text{g/m}^3$ ): 474.7

MAGLC ( $\mu\text{g/m}^3$ ): 2926.0

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4. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
  - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emissions of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)", than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
5. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.
6. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emission unit will still satisfy the "Air Toxic Policy."
  - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

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- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month volatile organic material usage and VOC emission limitation and, for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
2. The permittee shall submit deviation (excursion) reports which include an identification of each month during which the rolling, 12-month individual HAP material usage and emissions exceed 9.5 tons/year or any combination of HAP material usage and emissions exceed 24.5 tons/year, based on a rolling, 12 month summation, and the actual rolling, 12 month individual HAP emissions for each such month. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

**E. Testing Requirements**

- a. Emission Limitation

352.0 lbs VOC/batch

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Applicable Compliance Method

The short-term emission limitation is based upon the emissions unit's potential to emit. The potential to emit calculation, as shown in the following equation, was derived using the worst case emissions factor (obtained through company VOC content testing and mass balance calculations) and maximum capacity of the emissions unit.

$$(\text{Max PWR}) \times (\text{EF}) = 352.0 \text{ lbs VOC/batch}$$

Where:

Max PWR = Maximum Process Weight Rate, 400 lbs/batch

EF = Emissions factor developed from worst case product, 0.88 lbs VOC/gal

U.S. EPA Method 24 shall be used to determine the VOC content for each coating material produced. If it is determined to the satisfaction of the Director that each coating formulation data is equivalent to the Method 24 results, formulation data based on weight percentage of VOC components in the coating may be used. In the event of any inconsistency between a Method 24 test and the facility's formulation data, the Method 24 test will govern.

If required by Ohio EPA of the Cleveland Division of Air Quality, compliance with the VOC emission limitation shall be determined through emission testing conducted in accordance with U.S. EPA Method 25 or 25A of 40 CFR Part 60, Appendix A, or any Ohio EPA approved alternative testing method.

b. Emission Limitation

40.0 tons VOC/year, as a 12 month rolling summation

Applicable Compliance Method

Compliance shall be determined based on the record keeping requirements in section C.1.

d. Emission Limitation

9.5 tons individual HAPs/year for emissions units P001, P002, P003, and P004, as a 12 month rolling summation

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Applicable Compliance Method

Compliance shall be determined based upon the record keeping specified in section C.2.

**Quali****PTI A**Emissions Unit ID: **P004****Issued: To be entered upon final issuance**e. Emission Limitation

24.5 tons combination HAPs/year for emissions units P001, P002, P003, and P004, as a 12 month rolling summation

Applicable Compliance Method

Compliance shall be determined based upon the record keeping specified in section C.2.

**F. Miscellaneous Requirements**

1. 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 amount or composition of the materials, or use of new materials, that would cause the maximum potential emissions to increase above permit allowable limits, may require the permittee to apply for and obtain a new permit to install.