

Facility ID: 0125041763 Issuance type: Final State Permit To Operate

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

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Facility ID: 0125041763 Emissions Unit ID: P001 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (a) None.

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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> |
|---|---|--|
| Liquids Manufacturing | OAC rule 3745-21-07(G)(2) | See section A.2.a below. |
| | OAC rule 3745-17-07(A)(1) | The particulate emissions (PE) limit established by OAC rule 3745-17-07(A)(1) is less stringent than those established under OAC rule 3745-31-05(A)(3). |
| | OAC rule 3745-17-11(C) | See section A.2.b below. The PE limit established by OAC rule 3745-17-11(C) is less stringent than those established under OAC rule 3745-31-05(A)(3). |
| | OAC rule 3745-31-05(A)(3) (PTI 01-6309) | PE shall not exceed 0.14 lb/hr and 0.32 ton/yr. Organic compound (OC) emissions shall not exceed 1.9 lbs/hr and 4.28 tons/yr. See sections A.2.b and A.2.c below. The requirements of this rule shall also include compliance with the requirements of OAC rules 3745-21-09(G). |

2. Additional Terms and Conditions

- (a) To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5). Visible particulate emissions from any stack shall not exceed 0 percent opacity as a six-minute average.
The 1.9 lbs OC/hour and 0.14 lb PE/hr limitations for this emissions unit were established to reflect the maximum potential to emit. The hourly emission limitation is based upon a "worse case" adhesive formulation derived from calculations in the applicant's air permit to install application. Therefore, compliance with the hourly and annual emission limitation is assumed as long as the permittee does not exceed the operational restrictions in this permit.

B. Operational Restrictions

1. The permittee shall operate the cartridge dust collector filter (primary control device at 95% control efficiency) and the high-efficiency particulate air filter HEPA (secondary control device at 99% control efficiency) whenever this emissions unit is in operation.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. the liquid organic material usage in gallons;

- b. the total monthly OC emission rate in pounds, derived from 0.02 lbs OC volatilized per gallon mixed; and
 - c. the rolling, 12-month summation of the OC emissions.
- 2. The permittee shall maintain daily records that document any time periods when the cartridge dust collector and HEPA filter were not in service when the emissions unit was in operation.
- 3. The permit to install for this emissions unit (P001) was evaluated based on the actual 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) 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: Ethanol

TLV (ug/m3): 1,880,000

Maximum Hourly Emission Rate (lbs/hr): 1.06

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 423.8

MAGLC (ug/m3): 44,762

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 still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not 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 or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
- 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.).

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) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions 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 the 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 notify the Director (the Central District Office) in writing of any record which identifies each day during which any photochemically reactive materials were employed in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the Central District Office) within 30 days after the event occurs.
- 2. The permittee shall also submit annual reports that specify the total organic compound emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
- 3. The permittee shall notify the director (the Central District Office or local air agency) in writing of any daily record showing that the cartridge dust collector and HEPA filter were not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the director (the Central District Office) within 30 days after the event occurs.

E. Testing Requirements

- 1. Compliance with the emissions limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:
Emissions Limitation:
OC emissions shall not exceed 1.9 lbs/hr.

Applicable Compliance Method:

This hourly emissions limitation was derived by mass-balance calculation at a maximum volatilization rate of 0.02 lb OC per gallon mixed at 90.6 gallons ethanol employed per hour in batch production.

Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic material.

Emissions Limitation:
OC emissions shall not exceed 4.28 tons/yr.

Applicable Compliance Method:
Compliance shall be demonstrated by recordkeeping in section C.1 above.

Emission Limitation:
Visible particulate emissions from any stack shall not exceed 0 percent opacity as a six-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

Emission Limitation -
PE shall not exceed 0.14 lb/hr and 0.32 ton/yr.

Applicable Compliance Method -
This hourly emissions limitation was derived by mass-balance calculation at a maximum hourly solids usage of 2,242 lbs/hr multiplied by 0.05 lb/lb (company mass balance emission factor) multiplied by (1 - 0.95) for primary control and multiplied by (1-0.99) for secondary control).

Compliance with the hourly limitation shall be assured provided that the permittee maintains compliance with the operational restriction in section B.1 above.

F. Miscellaneous Requirements

1. None

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A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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> |
|---|--|---|
| Cleaning Process | OAC rule 3745-21-07(G)(2) | See section A.2.a below. |
| | OAC rule 3745-31-05(A)(5) (PTI 01-6309) | Organic compound (OC) emissions shall not exceed 3.7 lbs/hr and 8.11 tons/yr. |
| | | See section A.2.b below |

2. Additional Terms and Conditions

- (a) To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5). The 3.7 lbs OC/hour limitation for this emissions unit was established to reflect the maximum potential to emit. The hourly emission limitation is based upon a "worse case" adhesive formulation derived from calculations in the applicant's air permit to install application. Therefore, compliance with the hourly and annual emission limitation is assumed as long as the permittee does not exceed the operational restrictions in this permit.

B. Operational Restrictions

1. None

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. the liquid organic material usage in gallons;
 - b. the total monthly OC emission rate in pounds, assuming 50% volatilization; and
 - c. the rolling, 12-month summation of the OC emissions.

D. Reporting Requirements

1. The permittee shall notify the Director (Central District Office) in writing of any record which identifies each day during which any photochemically reactive materials were employed in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (Central District Office) within 30 days after the event occurs.
2. The permittee shall also submit annual reports that specify the total organic compound emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

1. Emissions Limitation:
Organic compound emissions shall not exceed 3.7 lbs/hr.

Applicable Compliance Method -
The hourly emission limitation was derived by mass-balance calculation at a maximum 50% volatilization rate at 3.8 gallons isopropyl alcohol employed per hour multiplied times the density of 6.55 lbs/gallon multiplied times 30% VOC by volume.

Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic material.
Emissions Limitation:
Organic compound emissions shall not exceed 8.11 tons/yr.

Applicable Compliance Method:
Compliance shall be demonstrated by recordkeeping in section C.1 above.

F. Miscellaneous Requirements

1. None