

Facility ID: 1677100026 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: 1677100026 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>
aerosol can filling line #1 - through the valve filling method	OAC rule 3745-31-05 (PTI 16-1482) OAC rule 3745-21-07(G)	0.77 lb/hr of volatile organic compounds (VOC) See B.1 below.

2. **Additional Terms and Conditions**
 - (a) The permittee shall employ the "through the valve" method of filling aerosol cans on the product line.

B. Operational Restrictions

1. The permittee shall not employ any photochemically reactive material, as defined by OAC rule 3745-21-01(C)(5), in this emissions unit.
2. The permittee shall not employ any methyl chloroform in this emissions unit.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each day the emissions unit is in operation:
 - a. the number of aerosol cans filled;
 - b. the daily VOC emissions from propellants, in pounds per day (this quantity equals the Akron Air Quality Agency derived emission factor of 0.0000182 pound of VOC emitted per can filled times the number of cans filled);
 - c. the company identification of each cleanup material employed;
 - d. the VOC content of each cleanup material, in pounds per gallon;
 - e. the number of gallons of each cleanup material employed;
 - f. the daily VOC emissions from cleanup materials, in pounds per day;
 - g. the total daily VOC emissions from all propellants and cleanup materials, in pounds per day;
 - h. the number of hours the emissions unit was in operation; and
 - i. the average hourly VOC emissions rate for all propellants and cleanup materials, i.e. (g)/(h), in pounds per hour (average).

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports identifying each day during which the VOC emissions from all propellants and cleanup materials exceeded 0.77 lb/hr of VOC, and the actual average hourly VOC emissions for each such day.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition 3 of this permit.

E. Testing Requirements

1. Compliance with the emission limitation in section A.1 of these terms and conditions shall be determined in accordance with the following method:
Emission Limitation:

0.77 lb/hr of VOC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above emissions limitation based upon the record keeping requirements in section C.1 of this permit.

F. Miscellaneous Requirements

1. None

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Facility ID: 1677100026 Emissions Unit ID: P002 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>
Aerosol filling lines #2 and #3	OAC rule 3745-31-05 (PTI 16-1735) OAC rule 3745-21-07	See A.2.a through A.2.d below. See A.2.e below.

2. Additional Terms and Conditions

- (a) The permittee shall not emit more than 0.77 pound per day of organic material from propellants. The permittee shall not emit more than 17.5 pounds per day of methyl chloroform (clean-up material), also an organic material. The permittee shall limit total daily organic material emissions, from propellants and cleanup, to no more than 18.27 pounds per day. Based on an operating schedule of 365 days per year, the permittee shall be limited to 3.34 tons per year of organic material emissions from all propellants and cleanup materials employed in this emissions unit. This emissions unit is exempt from the provisions of OAC rule 3745-21-07(G), per OAC rule 3745-21-07(G)(9)(f), since the organic material emissions are not photochemically reactive, as defined by OAC rule 3745-21-01(C)(5).

B. Operational Restrictions

1. The permittee shall not employ any photochemically reactive material, as defined by OAC rule 3745-21-01(C)(5), in this emissions unit.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each day the emissions unit is in operation:
 - a. the number of aerosol cans filled;
 - b. the daily organic material emissions from propellants, in pounds per day (this quantity equals the Akron Air Quality Agency derived emission factor of 0.0000182 pound of organic material emitted per can filled times the number of cans filled);
 - c. the company identification of each cleanup material employed;
 - d. the organic material content of each cleanup material, in pounds per gallon;

- e. the number of gallons of each cleanup material employed;
- f. the daily organic material emissions from cleanup materials, in pounds per day; and
- g. the total daily organic material emissions from all propellants and cleanup materials, in pounds per day.
2. The permit to install for this emissions unit P002 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), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):
- Pollutant: methyl chloroform
 TLV (mg/m3): 1910
 Maximum Hourly Emission Rate (lbs/hr): 2.02
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 884.5
 MAGLC (ug/m3): 45,476
3. 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.).
4. 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 submit deviation (excursion) reports identifying each day organic material (including methyl chloroform) emissions from this emissions unit exceeded the daily emission limitation(s) in this permit.
2. The deviation reports shall be submitted in accordance with the requirements specified in General Term and Condition 3.
3. The permittee shall also submit annual reports which specify the total organic compound emissions from this emissions unit for the previous calendar year, in tons. These reports shall be submitted by January 31 of each year.
- E. Testing Requirements**
1. Compliance with the emission limitations in Section A.2 of these terms and conditions shall be determined in accordance with the following methods:
- Emission Limitation:
- 0.77 lb/day of organic material from all propellants employed each day
- Applicable Compliance Method:
- The permittee shall demonstrate compliance with the above limitation based upon the record keeping requirements in Section C.1.
- Emission Limitation:
- 17.5 lbs/day of organic material (currently all methyl chloroform) from all cleanup materials employed each day

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limitation based upon the record keeping requirements of Section C.1.
Emission Limitation:

18.27 lbs/day of organic material from all propellants and cleanup materials employed each day

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limitation based upon the recordkeeping requirements of Section C.1.

F. **Miscellaneous Requirements**

- 1. None

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Facility ID: 1677100026 Emissions Unit ID: P003 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

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- 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>
P003 - Aerosol can filling line No. 3 consisting of one pre-polymer filling head station, one aerosol can propellant gas filling station, and associated automated can transfer and packaging stations.	OAC rule 3745-31-05(A)(3) (PTI 16-02351)	0.1 pound of organic compounds (OC) per hour for propellant and product losses 0.44 ton of OC per year for propellant and product losses
		0.90 ton of OC per year for cleanup material

- 2. **Additional Terms and Conditions**
 - (a) The hourly and annual OC emission limitations for propellant and product losses regulated per OAC rule 3745-31-05(A)(3) are based on the emissions unit's potential to emit. Therefore, no record keeping or reporting is required to demonstrate compliance with these limits.

B. **Operational Restrictions**

- 1. None

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

- 1. The permittee shall collect and record the following information monthly for the purpose of determining annual OC emissions for cleanup material from this emissions unit:
 - a. the name and identification of each cleanup material employed;
 - b. the number of gallons of each cleanup material employed;
 - c. the OC content of each cleanup material, in pounds per gallon; and
 - d. the total OC emissions from all cleanup materials employed, in tons (i.e., the sum of (b) times (c) for each cleanup material employed, divided by 2000 pounds per ton).

D. **Reporting Requirements**

- 1. The permittee shall also submit annual reports which specify the total OC emissions for cleanup material from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

E. **Testing Requirements**

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
Emission Limitations:

0.1 pound of OC per hour for propellant and product losses

Applicable Compliance Method:

Compliance shall be determined by the following equation:

$$E = [(0.000007 \text{ pound of OC/can} \times \text{Ncans}) + (\text{Cmd} \times (\text{Vb}/359) \times \text{Nhour} \times (273.15/\text{Tamb}) \times \text{Mv} \times \text{Kf})^{**}]$$

E = the maximum hourly emissions of OC from the aerosol filling line

Ncans = the maximum number of cans produced per hour

Cmd = the average MDI concentration, in ppmv, in the air within the building

Vb = the volume of the workspace building in ft³

Nhour = the maximum number of air exchanges per hour

Tamb = the ambient temperature in degrees Kelvin

Mv = the molecular weight of MDI = 250.26

Kf = the adjustment factor to the MDI concentration in the building air = 1.10

*Emission factor was derived using the ideal gas law, a propellant loss factor of 0.75 cm³ per can provide in the application, and the worst-case molecular weight.

**Equation for fugitive emissions of product loss from MDI comes from "MDI/Polymeric MDI Emissions Reporting Guidelines for the Polyurethane Industry" published by the Alliance for the Polyurethanes Industry.
Emission Limitations:

0.44 ton of OC per year for propellant and product losses

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly allowable OC emission limitation by 8760 hours per year, then dividing by 2000 pounds per ton.

Emission Limitations:

0.90 ton of OC per year for cleanup material

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monthly record keeping as required by section C.1 of these terms and conditions. Formulation data shall be used to determine the OC contents of the cleanup materials.

F. Miscellaneous Requirements

1. 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.