

Facility ID: 1431260797 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.

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 1431260797 Emissions Unit ID: L001 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>
L001 - Batch open top vapor degreaser	OAC rule 3745-31-05(A)(3) (PTI 14-04687)	Volatile organic compound (VOC) emissions shall not exceed 68 pounds per week and 1.77 tons per year (TPY).  See Section B.1.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C) and 40 CFR Part 63, Subpart T. See terms A.2.a, A.2.b, A.2.c and Section B.2.
	40 CFR, Part 63, Subpart T	Exempt
	OAC rule 3745-21-09(O)(3)	See term A.2.d.
	OAC rule 3745-31-05(C)	

**2. Additional Terms and Conditions**

- (a) The permittee shall ensure that the monthly emissions of perchloroethylene from the solvent cleaning machine do not exceed the 3-month rolling average limit of 150 kilograms/square meter/month. The permittee shall ensure the solvent cleaning machine contains only clean liquid solvent on the first day of every month and is filled to the same fill-line. The monthly emissions shall be calculated using the records of all solvent additions, deletions, and recoveries from each month. The permittee shall maintain a log of solvent additions and deletions for the solvent cleaning machine. The total allowable emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act, from emissions unit L001 (Batch Vapor Degreaser) and any registration status and/or permit exempt emissions units shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

The permittee has existing records to demonstrate compliance upon issuance of the permit.

**B. Operational Restrictions**

1. The amount of perchloroethylene evaporated shall not exceed 5 gallons per week.
2. On the first operating day of every month the permittee shall ensure that the solvent cleaning machine system contains only clean liquid solvent. This includes, but is not limited to, fresh unused solvent, recycled solvent, and used solvent that has been cleaned of soils. A fill line must be indicated during the first month the measurements are made. The solvent level within the machine must be returned to the same fill line each month, immediately prior to calculating monthly emissions and/or the overall cleaning system's control efficiency. The solvent cleaning machine does not have to be emptied and filled with fresh unused solvent prior to the calculations.

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

1. The permittee shall maintain the following records either in electronic or written form for a period of five years:
  - a. The dates and amounts of perchloroethylene that are added to the solvent cleaning machine.
  - b. The perchloroethylene composition of wastes removed from the cleaning machines using the procedures described in the "Testing Requirements" section of this permit.

- c. Calculation sheets showing how the monthly emissions and the rolling 3-month average emissions of perchloroethylene from the solvent cleaning machine were determined, and the results of all calculations.
- 2. The permittee shall collect and record the following information each month for emissions unit L001 (Batch Vapor Degreaser) and any registration status and/or permit exempt emissions units:
  - a. The name and identification number of each material, employed.
  - b. The individual Hazardous Air Pollutant (HAP) content for each HAP of each material in pounds of individual HAP per gallon of material, as applied.
  - c. The total combined HAP content of each material in pounds of combined HAPs per gallon of material, as applied [sum all the individual HAP contents from (b)].
  - d. The number of gallons of each material employed.
  - e. The total individual HAP emissions for each HAP from all materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d) for each material].
  - f. The total combined HAP emissions from all materials employed, in pounds or tons per month [the sum of (c) times (d) for each material].
  - g. The updated rolling, 12-month summation of emissions for each individual HAP emissions, 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.
  - h. The updated rolling, 12-month summation of emissions for total combined HAP emissions, 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.

\* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Hamilton County Department of Environmental Services contact. This information does not have to be kept on a individual emissions unit basis.

#### D. Reporting Requirements

- 1. The permittee shall submit an annual solvent emission report by February 1 of each year. The report shall cover the previous calendar year. The report shall contain the following:
  - a. The size and type of solvent cleaning machine, including if it has a solvent/air interface area or is using cleaning capacity.
  - b. The average monthly perchloroethylene consumption for the solvent cleaning machine in kilograms per month.
  - c. The 3-month monthly rolling average perchloroethylene emissions estimates, calculated each month using the method as described in the standard and/or the "Testing Requirements" section of this permit.
- 2. The permittee shall submit an exceedance report on a semiannual basis. This report shall be submitted no later than January 30th and July 30th of each year and shall cover the previous 6 calendar months ( January-June and July-December). However, if the perchloroethylene three-month rolling average of 150 kilograms/square meter/month is exceeded, the permittee shall begin to submit a quarterly report until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (appropriate District Office or local air agency). The permittee may receive approval of less frequent reporting if the following conditions are met: (1) the emissions unit has demonstrated a full year of compliance without an exceedance, (2) the permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in 40 CFR 63.1, General Provisions, and (3) the Director (appropriate District Office or local air agency) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e) (3) (iii) of subpart A, 40 CFR 63.1, General Provisions. Each exceedance report shall be delivered or post marked by the 30th day following the reporting period. Each exceedance report shall contain the following:
  - a. The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463 (e) and (f) including written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.
  - b. If no exceedance has occurred, a statement to that effect shall be submitted.
- 3. The permittee shall notify the Hamilton County Department of Environmental Services of any monthly record showing any exceedance of the following:
  - a. The total individual HAP emission limitation for each HAP from all materials employed, in pounds or tons per month and pounds or tons per rolling, 12-month period.
  - b. The total combined HAP emissions from all materials employed, in pounds or tons per month and pounds or tons per rolling, 12-month period.

The reports shall be submitted (i.e., post marked) by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. If no exceedances occurred, the permittee shall state so in the report.
- 4. The permittee shall notify the Hamilton County Department of Environmental Services in writing identifying each week during which more than 5 gallons of perchloroethylene were evaporated. This report shall identify the cause for the exceedance and the total amount of perchloroethylene evaporated. This report shall be submitted to the Hamilton County Department of Environmental Services within 30 days after the exceedance occurs.

#### E. Testing Requirements

1. Compliance with the usage limitation in Section B.1 will be determined by the record keeping in Section C.1.
2. The permittee shall determine the facility's potential to emit (PTE) from all solvent cleaning operations. A facility's total PTE is the sum of the HAP emissions from all solvent cleaning operations plus all HAP emissions from other emissions units from within the facility. The potential to emit shall be determined in accordance with the following procedures:

- a. Determine the potential to emit for each individual solvent cleaning machine using the following equation:

$$PTE_i = H_i \times W_i \times SAI_i$$

Where:

PTE<sub>i</sub> = the potential to emit for the solvent cleaning machine i (kilograms solvent per year).

H<sub>i</sub> = hours of operation for solvent cleaning machine i (hours per year).

= 8760 hours per year, unless otherwise restricted by a federally enforceable requirement.

W<sub>i</sub> = the working mode uncontrolled emission rate (kilograms per square meter per hour).

= 1.95 kilograms per square meter per hour for batch vapor and cold cleaning machines.

= 1.12 kilograms per square meter per hour for in-line cleaning machines.

SAI<sub>i</sub> = solvent/air interface area of solvent cleaning machine i (square meters). Section 63.461 defines the solvent/air interface area for those machines that have a solvent /air interface. Cleaning machines that do not have a solvent area interface shall calculate a solvent/air interface area using the procedure in paragraph (b) below.

b. Cleaning machines that do not have a solvent/air interface shall calculate a solvent/air interface area using the following equation:

$$SAI = 2.2 * (Vol)^{0.6}$$

Where:

SAI = the solvent/air interface area (square meters).

Vol = the cleaning capacity of the solvent cleaning machine (cubic meters).

- c. Sum the PTE<sub>i</sub> for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.
3. Compliance with the emission limitations in the terms and conditions of this permit shall be determined in accordance with the following methods:

Emission Limitation:

Emissions of perchloroethylene shall not exceed 150 kilogram/square meter as a 3-month rolling average.

Applicable Compliance Method:

Using the records of all solvent additions and deletions from the previous month, the permittee shall calculate emissions using the following equation:

$$E_i = (SA_i - LSR_i - SSR_i) / AREA_i$$

where:

E<sub>i</sub> = the total halogenated HAP solvent emissions from the solvent cleaning machine during the most recent monthly reporting period i (kilograms of solvent per square meter of solvent/air interface area per month);

SA<sub>i</sub> = the total amount of halogenated HAP liquid solvent added to the solvent cleaning machine during the most recent monthly reporting period i (kilograms of solvent per month);

LSR<sub>i</sub> = the total amount of halogenated HAP liquid solvent removed the solvent cleaning machine during the most recent monthly reporting period i (kilograms of solvent per month);

\*SSR<sub>i</sub> = the total amount of halogenated HAP liquid solvent removed from the solvent cleaning machine in solid waste, during the most recent monthly reporting period i (kilograms of solvent per month); and  
AREA<sub>i</sub> = the solvent /air interface area of the solvent cleaning machine (square meters).

\* The permittee shall determine SSR<sub>i</sub> from tests conducted using reference method 25d or from engineering calculations included in the compliance report.

The permittee shall determine the monthly rolling average, EA, for the 3-month period ending with the most recent month's reporting period using the following equation:

$$EA_i = (E_i) / 3, \text{ where the summation is from } j=1 \text{ to } j= 3$$

where:

EA<sub>i</sub> = the average halogenated HAP solvent emissions over the preceding 3 monthly reporting periods (kilograms of solvent per square meter of solvent/air interface area per month);

E<sub>i</sub> = halogenated HAP solvent emissions for each month (j) for the most recent 3 monthly reporting periods (kilograms of solvent per square meter of solvent/air interface area per month);

j=1 = the most recent monthly reporting period;  
j=2 = the monthly reporting period immediately prior to j=1; and  
j=3 = the monthly reporting period immediately prior to j=2.

4. Compliance with the emission limitations in the terms and conditions of this permit shall be determined in accordance with the following methods:

**Emission Limitation:**

Volatile organic compound (VOC) emissions shall not exceed 68 pounds per week and 1.77 tons per year (TPY).

**Applicable Compliance Method:**

Compliance was determined by multiplying the maximum weekly usage rate of 5 gallons by 13.6 pounds per gallon (density of perchloroethylene). The annual emissions limit is determined by multiplying the weekly limit times 52 weeks per year then dividing by 2000 pounds per ton.

5. Compliance with the HAP emission limitation in term A.2.d shall be demonstrated by the record keeping in Section C.2.

**F. Miscellaneous Requirements**

None