Facility ID: 1431093495 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.

Facility ID: 1431093495 Emissions Unit ID: L004 Issuance type: Final State Permit To Operate

Go to the top of this document

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
L004-open top vapor degreaser (batch cleaning)	OAC rule 3745-31-05(A)(3) (PTI 14-04053)	Volatile Organic Compound (VOC) emissions shall not exceed 408 pounds per week and 9.55 tons per year. The requirements of this rule also include compliance with the requirement 3745-35-07(B). See terms A.2.a - A.2.c and B.1- B.5.
	40 CFR Part 63, Subpart T	Same as limitations and/or control requirements as established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-09(O)(3)	Same as limitations and/or control requirements as established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-35-07(B) Synthetic Minor to avoid Title V	See term A.2.j.

2. **Additional Terms and Conditions**

(a) The batch vapor cleaning machine, having a solvent/air interface area of 1.21 square meters (13 square feet) or less, shall employ a freeboard ratio of 1.0 or higher, where the freeboard ratio is the height of the freeboard divided by the smallest interior freeboard width and a freeboard refrigeration device where the temperature of the air in the freeboard must be no greater than 30% of the solvent boiling point (in degrees F), as the chosen control combination selected from Table 1 of Subpart T [40 CFR, Part 63.463(b)].
The permittee shall ensure that the solvent cleaning machine conforms to the following design requirements:

i. The degreaser shall heat the solvent with steam. If heater coils are installed to heat up the solvent, a devise shall also be installed that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils.
ii. The degreaser shall be equipped with a vapor level control device that shuts off the sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser, the condenser coolant is not circulating, and/or the coolant is too warm.

iii. The degreaser shall have a primary condenser.

iv. The degreaser shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minute (11 feet per minute) or less from the initial loading of parts through removal of the cleaned parts. Manual hoists can be used if the facility can demonstrate that the hoist can never exceed 3.4 meters per minute.
v. The degreaser shall have an idling and downtime mode cover that may be readily opened and closed, that completely covers the machine openings when in place and is free of cracks holes and other defects. The cover must be closed at all times, except when parts are entering or exiting the machine, when the solvent has been removed from the machinery, or when maintenance or monitoring is being performed that requires the cover to not be in place.

vi. The degreaser shall be equipped with a safety spray switch which shuts off the spray pump if the vapor level drops below any fixed spray nozzle.

vii. The degreaser shall have a water flow switch, water pressure switch, or any other device which shuts off the sump heat if the water in a water-cooled condenser has no flow or no pressure, whichever is being monitored.
The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act, from emission units L004 (vapor degreaser) , P001 (evaporative tank with an air scrubber) including any de minimus air contaminant sources as defined in OAC rule 3745-15-05, and any permanant exemption air contaminant sources installed subsequent to the issuance of this permit 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.

B. **Operational Restrictions**

1. The permittee shall control air disturbances across the solvent cleaning machine opening(s) by using an idling and downtime mode cover that shall be in place during the idling and downtime modes, unless: (a) the solvent has been removed, (b) solvent is being added or removed, or (c) maintenance, monitoring, and or solvent level measurements is/are being performed that requires the cover(s) to be removed. The cover shall be able to be readily opened or closed, shall completely cover the cleaning machine openings when in place, and shall be free of cracks, holes and other defects. A continuous web part that completely occupies an entry or exit port when the machine is idle is considered to meet the requirement.

2. The permittee shall comply with all of the following work and operational practice requirements:

   a. The parts basket or the parts being cleaned in an open top batch vapor cleaner shall not occupy more than 50 percent of the solvent-air interface area, unless the parts baskets or parts are introduced at a speed of 0.9 meter per minute (3 feet per minute) or less.

   b. Any spraying operations shall be done within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the ambient air (i.e., a baffled or enclosed area of the solvent cleaning machine).

   c. Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes shall be tipped or rotated before being removed from the solvent cleaning machine unless an equally effective approach has been approved by the Hamilton County Department of Environmental Services.

   d. Parts baskets or parts shall not be removed from the solvent cleaning machine until the dripping has stopped.
   e. During startup of the solvent cleaning machine, the primary condenser shall be turned on before the sump heater.

   f. During shutdown of the solvent cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.

   g. When solvent is added or drained from any solvent cleaning machine, the solvent shall be transferred using threaded or other leakproof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface.

   h. The solvent cleaning machine and its associated controls shall be maintained as recommended by the manufacturer of the equipment or using alternative maintenance practices that have been demonstrated to the satisfaction of the Hamilton County Department of Environmental Services to achieve the same or better results as those recommended by the manufacturer.
   i. Repair any solvent leaks immediately, or shut down the degreaser.

   j. Provide a permanent conspicuous label, summarizing the operating procedures.

   k. Waste solvent, still and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.

3. The number of gallons of evaporated solvent from this emissions unit shall not exceed 30 gallons per week.

4. The number of gallons of evaporated solvent from this emissions unit shall not exceed 1,404 gallons per year. Compliance with the annual limitation shall be based upon a rolling, 12-month summation.

5. The permittee shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in 40 CFR Part 63, Subpart T, Appendix A, if requested during an inspection by the Hamilton County Environmental Services.

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

1. The permittee shall measure and record the freeboard ratio before each solvent addition to assure compliance with the control requirement limitation.

2. For the freeboard refrigeration device, the facility shall ensure that the chilled air blanket temperature measured at the center of the air blanket, is no greater than 30% of the solvents boiling point (in degrees F).

   The permittee shall conduct monitoring and record the results, on a weekly basis, for the freeboard refrigeration device by using a thermometer or thermocouple to measure the temperature at the center of the air blanket during the idling mode.

3. The permittee shall conduct monitoring and record the results, on a monthly basis, for the working-mode cover by conducting a visual inspection to determine if the cover is opening and closing properly, completely covers the cleaning machine openings when closed, and is free of cracks, holes, and other defects.

4. The permittee shall monitor the hoist speed as described below:

   a. The hoist speed shall be determined by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes (meters per minute).

b. The permittee shall conduct monthly monitoring of the hoist speed. If after the first year, no exceedances of the hoist speed are measured, the permittee may begin monitoring the hoist speed quarterly.

c. If an exceedance of the hoist speed occurs during quarterly monitoring, the permittee shall return to a monthly monitoring frequency until another year of compliance without an exceedance is demonstrated.

d. If the permittee can demonstrate to the satisfaction of the the Hamilton County Department of Environmental Services in the initial compliance report that the hoist speed cannot exceed a speed of 3.4 meters per minute (11 feet per minute), the required monitoring frequency is quarterly, including during the first year of compliance.

5. The permittee shall maintain the following records in written or electronic form for the lifetime of the solvent cleaning machine:

a. Owner's manuals or, if not available, written maintenance and operating procedures for the solvent cleaning machine and control equipment.

b. The date of installation for the solvent cleaning machine and all of its control devices. If the exact date for the installation is not known, a letter certifying that the cleaning machine and its control devices were installed prior to, or on, November 29, 1993, or after November 29, 1993, may be substituted.

c. Records of the halogenated HAP solvent content for the solvent used in the solvent cleaning machine.

6. The permittee shall maintain the following records in written or electronic form for a period of five years for the solvent cleaning machine:

a. The results of control device monitoring required in this section of the permit.

b. Information on the actions taken to comply with 40 CFR 63.463 (e) and (f), including records of written or verbal orders for replacement parts, a description of the repair made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.

c. The amount of solvent used, the amount of solvent reclaimed, the solvent content of the waste, and the amount of solvent evaporated, on a weekly and annual basis.

d. The amount of solvent evaporated on a monthly basis to ensure compliance with section B.3. The facility shall also record the rolling twelve-month summation of the total gallons of evaporated solvent for each month.

7. The permittee shall collect and record the following information each month for emission units L004 (vapor degreaser), P001 (evaporative tank with an air scrubber) including any de minimus air contaminant sources as defined in OAC rule 3745-15-05, and any permanant exemption air contaminant sources installed subsequent to the issuance of this permit:

a. the name and identification number of each solvent employed;
b. the individual Hazardous Air Pollutant (HAP*) content for each HAP of each solvent in pounds of individual HAP per gallon of solvent, as employed;
c. the total combined HAP content of each solvent in pounds of combined HAPs per gallon of solvent, as employed (sum all the individual HAP contents from (b));
d. the number of gallons of each solvent employed;
e. the total individual HAP usage for each HAP from all solvent materials employed, in pounds or tons per month (for each HAP the sum of (b) times (d) for each solvent);
f. the total combined HAP usage from all solvent employed, in pounds or tons per month (the sum of (c) times (d) for each solvent);
g. the updated rolling, 12-month summation of usage for each individual HAP emissions**, in pounds or tons (this shall include the information for the current month and the preceding eleven calender months); and
h. the updated rolling, 12-month summation of usage for total combined HAP emissions**, in pounds or tons (this shall include the information for the current month and the preceding eleven calender months).

* 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 degreaser-by-degreaser basis.

** This assumes the HAP(s) emitted is (are) the same as the amount of HAP(s) used since all HAP(s) used evaporated.

D. **Reporting Requirements**

1. The permittee shall submit an annual report by February 1 of each year for the preceding year. Each annual report shall contain the following:

a. A signed statement from the facility owner or their designee stating that, "All operators of solvent cleaning machines have received training on the proper operation of solvent cleaning machines and their control devices sufficient to pass the test required by the standard"; and

b. An estimate of solvent consumption during the reporting period and emissions of each HAP.

2. The permittee shall submit an exceedance report on a semiannual basis unless it is determined that more frequent reporting is necessary to accurately assess compliance or if an exceedance occurs. Once an exceedance has occurred 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 Hamilton County Department of Environmental Services. The permittee may receive approval of less frequent reporting if the following conditions are met: (a) the emissions unit has demonstrated a full year of compliance without an exceedance, (b) the permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in 40 CFR 63.1, General Provisions, and (c) the Hamilton County Department of Environmental Services 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.
An exceedance or omission of any of the following limits, monitoring parameters, and/or requirements from the standard shall be included in the exceedance reports:

i. The permittee shall submit a deviation report if the freeboard ratio is not maintained at 1.0 or greater.

ii. The permittee shall submit a deviation report if the temperature of the chilled air blanket, measured at the center of the air blanket, was greater than 30% of the solvent's boiling point, and no correction was made within 15 days of detection.

iii. The permittee shall submit a deviation report if the cover did not completely cover the cleaning machine openings, when containg the HAP solvent and during any idling or downtime mode, unless solvent is being added or removed, and/or maintenance, monitoring, and/or solvent level measurements were being conducted. Cracks, holes, or other defects to the cover, that were not repaired or the cover not replaced within 15 days of detection, shall also be reported.

3. The permittee shall submit semi-annual reports to the Hamilton County Department of Environmental Services indicating any exceedances of the limit in section B.3 and B.4, along with the cause of the exceedance and corrective action taken to prevent further exceedances. The reports shall be submitted by February 15 and August 15 of each year and shall cover the previous 6 calendar months (July through December and January through June, respectively).

4. The permittee shall notify the Hamilton County Department of Environmental Services of any exceedance of the HAP emissions limitations set forth in this permit. The permittee shall submit annual reports which identify all exceedances of these limitations, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year. If no exceedances occurred during the reporting period, then a report is required stating that no exceedances have occurred.

5. The permittee shall submit quarterly deviation reports if any of the following control equipment is not repaired or replaced within 15 days of any malfunction, and/or the machine is not shut down until repaired:

a. the device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils;

b. the vapor level control device(s) that shuts off the sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser, if the condenser coolant is not circulating, or if the coolant is too warm; and/or

c. the primany condenser.

Included in the report shall be the length of time the equipment was not in operation or malfunctioning, and the date it was repaired or replaced.

E. **Testing Requirements**

1. Compliance with the emission limitations specified in Section A.1 shall be determined by the following methods:

Emission Limitations:

408 lbs VOC/week; and
9.55 TPY VOC.

Applicable Compliance Method:

30 gallons/week of solvent x 13.6 lbs VOC/gallon = 408 lbs VOC/week; and

1404 gallons/year of solvent x 13.6 lbs VOC/gallon x ton/2000 lbs = 9.55 TPY VOC.

2. Compliance with the solvent usage limit in term and conditions B.3 and B.4 shall be demonstrated by the recordkeeping in term and condition C.6.

3. Compliance with the HAPs limitations in term A.2.c shall be demonstrated by the recordkeeping in term C.7.

4. 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:

PTEi = Hi X Wi X SAIi

Where:

PTEi = the potential to emit for the solvent cleaning machine i (kilograms solvent per year).

Hi = hours of operation for solvent cleaning machine i (hours per year).

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

Wi = 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.
SAIi = 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 PTEi for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.

F. **Miscellaneous Requirements**

1. None