

Facility ID: 1667080025 Issuance type: Draft 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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[Go to Part II for Emissions Unit L001](#)

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Facility ID: 1667080025 Emissions Unit ID: K001 Issuance type: Draft 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>
Surface coating line - miscellaneous metal parts	OAC rule 3745-31-05 (PTI 16-1334)	50 lbs/day of VOC
	OAC rule 3745-17-07	20% opacity as a 6-minute average, except as provided by rule
	OAC rule 3745-17-11	0.551 lb/hr of particulate matter
	OAC rule 3745-21-09(U)	See A.2.a below.

**2. Additional Terms and Conditions**

- (a) Although the requirements of OAC rule 3745-21-09(U) allow for an exemption from applicable VOC content limitations, the daily usage exemption allowed in accordance with OAC rule 3745-21-09(U)(2)(e)(ii) is not part of the federally approved SIP. The rule is currently being revised by the Ohio EPA to specify an exemption level (3 gallons per day) that will be acceptable to USEPA. The Ohio EPA has received confirmation from the USEPA of the acceptability of the lower exemption level; therefore, the 3 gallons per day usage restriction in Section A.II.1 below will serve as the exemption level during and after the period of time when OAC rule 3745-21-09(U) is being revised and the official approval by USEPA is being obtained.

**B. Operational Restrictions**

1. The maximum daily coating usage for this emissions unit shall not exceed 3 gallons.
2. The permittee shall not employ any halogenated solvents in this emissions unit.

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

1. The permittee shall collect and record the following information each day for the coating line:
  - a. the name and identification number of each coating employed;
  - b. the volume, in gallons, of each coating employed; and
  - c. the total volume, in gallons, of all of the coatings employed.
2. The permittee shall collect and record the following information each month for each coating and cleanup material employed in this emissions unit:
  - a. the name and identification number of each coating and cleanup material, as applied;
  - b. the total VOC content, in pounds of VOC per gallon, of each coating and cleanup material, as applied;
  - c. the number of gallons of each coating and cleanup material employed;
  - d. the total VOC emissions from all coatings and cleanup materials, in pounds;

- e. the number of days the emissions unit was in operation; and
- f. the calculated average daily VOC emission rate, i.e., (d)/(e), in pounds of VOC per day (average).

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports which include the following information:
  - a. an identification of each day during which the coating usage exceeded 3 gallons, and the actual coating usage for each such day; and
  - b. an identification of each month during which the average daily VOC emissions from all coatings and cleanup materials exceeded 50 pounds per day, and the actual VOC emissions for each such month.
2. The permittee shall notify Akron Regional Air Quality Management District prior to any changes made in the coating formulations.
3. The deviation reports shall be submitted in accordance with the requirements specified in General Term and Condition 3.

**E. Testing Requirements**

1. Compliance with the emission limitations in Sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitation:

50 lbs/day of VOC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limitation based upon the record keeping requirements of Section C.2 of these T&Cs.

The VOC content of each coating shall be determined using USEPA Methods 24 and 24A. If pursuant to Section 4.3 of Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating, the permittee shall so notify the Administrator or the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

Emission Limitation:

0.551 lb/hr of particulate matter

Applicable Compliance Method:

To determine the actual worst case particulate emissions rate, the following equation shall be used:

$E = \text{maximum coating solids usage rate in pounds per hour} \times (1-TE) \times (1-CE)$

E = particulate emissions rate (lbs/hr)

TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used

CE = fractional control efficiency of the control equipment

Emission Limitation:

20% opacity as a 6-minute average, except as provided by rule

Applicable Compliance Method:

OAC rule 3745-17-03(B)(1)

**F. Miscellaneous Requirements**

1. None

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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>
Batch open top vapor degreaser	OAC rule 3745-31-05 (PTI 16-1334)	4.03 pounds per hour of methylene chloride
	OAC rule 3745-21-09(O)	Equivalent to or less stringent than MACT
	OAC rule 3745-35-07	Combined annual emissions from this emissions unit shall not exceed the following as a rolling, 12-month summation:  9.95 tons of methylene chloride.  See Section A.2.b below.

40 CFR 63 subpart T

**2. Additional Terms and Conditions**

(a) To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following table:

Months	Methylene Chloride Emissions Limit (tons)
1	1.50 tons
1-2	3.00 tons
1-3	4.50 tons
1-4	6.00 tons
1-5	7.50 tons
1-6	9.00 tons
1-7	9.95 tons
1-8	9.95 tons
1-9	9.95 tons
1-10	9.95 tons
1-11	9.95 tons
1-12	9.95 tons

After the first 12 calendar months of operation following the issuance of this permit, compliance with the emission limitation shall be based upon rolling, 12-month summations. The permittee shall ensure that the solvent cleaning machine conforms to the following design requirements:

- i. the solvent cleaning machine shall have a freeboard ratio of 0.75 or greater;
- ii. the solvent cleaning machine 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 cleaned parts;
- iii. the solvent cleaning machine shall be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils;
- iv. the solvent cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser; and
- v. the solvent cleaning machine shall have a primary condenser.

**B. Operational Restrictions**

- 1. Control air disturbances across the solvent cleaning machine opening(s) by incorporating the following technique:  
  
The permittee shall employ a reduced room draft that ensures that the flow or movement of air across the top of the freeboard area of the solvent cleaning machine or within the solvent cleaning machine enclosure does not exceed 15.2 meters per minute (50 feet per minute) at any time as measured using the procedures described in the "Monitoring and/or Recordkeeping Requirements" section of this permit. The permittee shall also establish and maintain the operating conditions under which the wind speed was demonstrated to be 15.2 meters per minute (50 feet per minute) or less as described in the "Monitoring and/or Recordkeeping Requirements" section of this permit.
- 2. The parts baskets or the parts being cleaned in solvent cleaning machine 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.
- 3. 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).
- 4. Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes must be

tipped or rotated before being removed from the solvent cleaning machine unless an equally effective approach has been approved by the Director (appropriate District Office or local air agency).

5. Parts baskets or parts shall not be removed from the solvent cleaning machine until dripping has stopped.
  6. During startup of the solvent cleaning machine, the primary condensers shall be turned on before the sump heater.
  7. 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.
  8. When solvent is added or drained from the 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.
  9. The solvent cleaning machine and its associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the satisfaction of the Director (appropriate District Office or local air agency) to achieve the same or better results as those recommended by the manufacturer.
  10. The permittee shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in 40 CFR Part 63, Appendix B if requested during an inspection by the Director (appropriate District Office or local air agency).
  11. Waste solvent, still bottoms, and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but must not allow liquid solvent to drain from the container.
  12. Sponges, fabric, wood, and paper products shall not be cleaned.
  13. The permittee shall ensure that the chilled air blanket temperature (in degrees F), measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point.
  14. The permittee shall comply with the following requirements:
    - i. determine the appropriate dwell time for each type of part or parts basket, or determine the maximum dwell time using the most complex part type or parts basket as described in the "Testing Requirements" section of this permit; and
    - ii. ensure that, after cleaning, each part is held in the solvent cleaning machine freeboard area above the vapor zone for the dwell time determined for that particular part or parts basket, or for the maximum dwell time determined using the most complex part type or parts basket.
  15. The permittee shall only employ methylene chloride as the solvent in this emissions unit.
- C. Monitoring and/or Record Keeping Requirements**
1. 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:  
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.  
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.  
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).  
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.
  2. The permittee shall monitor the hoist speed as described below:
    - a. The permittee shall determine the hoist speed 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 Director (appropriate District Office or local air agency) 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.
  - 3. 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; and
    - d. records of the tests required as outlined in the "Testing Requirements" section of this permit to determine an appropriate dwell time for each part or parts basket.
  - 4. 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; and
    - c. estimates of annual methylene chloride consumption for the solvent cleaning machine.
  - 5. 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.
  - 6. The permittee shall conduct monitoring and record the results on a monthly basis of the actual dwell time. The permittee shall determine the actual dwell time by measuring the period of time that parts are held within the freeboard area of the solvent cleaning machine after cleaning.
  - 7. The permittee shall conduct an initial monitoring test of the wind speed and of room parameters, quarterly monitoring of wind speed, and weekly monitoring of room parameters as specified below:
    - a. Measure the wind speed within 6 inches above the top of the freeboard area of the solvent cleaning machine as follows:
      - i. Determine the direction of the wind current by slowly rotating a velometer or similar device until the maximum speed is located.
      - ii. Orient a velometer in the direction of the wind current at each of the four corners of the machine.
      - iii. Record the reading for each corner.
      - iv. Average the values obtained at each corner and record the average wind speed.
    - b. Monitor on a weekly basis the room parameters established during the initial compliance test that are used to achieve the reduced room draft.
  - 8. The permittee shall collect and record the following information each month for the degreaser:
    - a. the amount of methylene chloride added to the degreaser during the month, in gallons;
    - b. the amount of methylene chloride removed from the degreaser during the month, in gallons;
    - c. the solids content of the removed solvent, in gallons;
    - d. the number of hours the emissions unit was in operation for the month; and
    - e. the calculated monthly methylene chloride emissions, i.e.  $[(a)-(b)-(c)] \times (11.4 \text{ pounds/gallon})$ , in pounds per month;
    - f. the calculated average hourly methylene chloride emissions, i.e.  $(e)/(d)$ , in pounds per hour (average); and
    - g. the rolling, 12-month summation of the methylene chloride emissions, in tons, and for the first 12 calendar months of operation following the issuance of this permit, the cumulative methylene chloride emissions, in tons.
- D. Reporting Requirements**
- 1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the average hourly emission limitation for methylene chloride.

2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitation for methylene chloride and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels.
  3. The deviation reports shall be submitted in accordance with the requirements specified in General Term and Condition 3.
  4. The permittee shall submit annual reports of actual methylene chloride emissions for the preceding calendar year. These reports shall be submitted by February 15 of each year, and shall cover the previous calendar year.
  5. The permittee shall submit an initial statement of compliance no later than 150 days after startup. Each initial statement of compliance shall contain the following:
    - a. the name and address of the permittee;
    - b. the address (i.e., physical location) of the solvent cleaning machine;
    - c. a list of the control equipment used to achieve compliance; and
    - d. a list of the parameters that are monitored and the values of these parameters measured on or during the first month after the compliance date for each piece of control equipment required to be monitored.
  6. 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 pursuant to 40 CFR 60.463 (d) (10)."; and
    - b. an estimate of solvent consumption during the reporting period.
  7. The permittee shall submit an exceedance report on a semiannual basis. If the appropriate dwell time for each type part or parts basket or the maximum dwell time was not determined and if after cleaning, each part was not held in the solvent cleaning machine freeboard area above the vapor zone for the proper or the maximum dwell time for that particular part or parts basket, or 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, or if no operation conditions were established under which the wind speed was demonstrated to be 15.2 meters per minute (50 feet per minute) and/or if the flow of air across the top of the freeboard area of the cleaning machine or within the solvent cleaning machine enclosure exceeded 15.2 meters/minute and no correction was made within 15 days of detection, 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:

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; and if no exceedance has occurred, a statement to that effect.
- E. Testing Requirements**
1. Compliance with the emission limitations in Sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation:

4.03 lbs/hr of methylene chloride

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above emission limitation based upon the record keeping requirements in Section C.8.

Emission Limitation:

9.95 TPY of methylene chloride

Applicable Compliance Method:

For L001, the permittee shall calculate methylene chloride emissions in accordance with the record keeping in Section C.8.
  2. The permittee shall determine the appropriate dwell time for each part or parts basket using the following procedures:
    - a. Determine the amount of time for the part or parts basket to cease dripping once placed in the vapor zone. The part or parts basket used for this determination must be at room temperature before being placed in the vapor zone.
    - b. The proper dwell time for parts to remain in the freeboard area above the vapor zone is no less than 35 percent of the time determined in paragraph (2) (a) of this section.
  3. The permittee shall conduct an initial test of the wind speed and of room parameters using the following procedures:

a. Determine and measure the maximum wind speed within 6 inches above the top of the freeboard area of the solvent cleaning machine by slowly rotating a velometer or similar device until the maximum speed is located.

b. Orient the velometer or similar device in the direction of the wind current at each of the four corners of the machine and perform the following:

i. record the reading for each corner; and

ii. average the values obtained at each corner and record the average wind speed.

**F. Miscellaneous Requirements**

1. The following terms are considered federally enforceable: sections A, B, C, D, E, and F. The applicant has requested that such restrictions be imposed in order to limit the potential to emit, and therefore avoid Title V applicability.