Facility ID: 0228000269 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: 0228000269 Emissions Unit ID: L002 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
Open top vapor degreaser using methylene chloride for metal parts cleaning.	OAC rule 3745-31-05 (A)(3) PTI No. 02-9962	The organic compound (OC) emissions from this emissions unit shall not exceed 49.2 pounds per day and 8.98 tons per year.
	OAC 3745-21-09(O)(3)	Exempt. See section A.2.a of these terms and conditions.
	40 CFR Part 63, subpart T	See sections A.2.b, A.2.c, and B.1 - B.5 of these terms and conditions.

2. **Additional Terms and Conditions**

   (a) In accordance with OAC rule 3745-21-09 (O)(6)(b), OAC rule 3745-21-09 (O)(2) - (O)(5) shall not apply to any solvent metal cleaning operation which is subject to 40 CFR Part 63, subpart T.
   This batch vapor cleaning machine, having a solvent/air interface area of 1.21 square meters (13 square feet) or less, shall employ freeboard refrigeration device and dwell, as the chosen control combination selected from Table 1 of Subpart T [40 CFR 63.463(b)].
   General Design Requirements

   The permittee shall ensure that the solvent cleaning machine conforms to the following design requirements:

   i. Use of an idling and downtime mode cover that shall be in place during the idling mode, and during the downtime mode unless either the solvent has been removed from the machine or maintenance or monitoring is being performed that requires the cover(s) to not be in place. The cover must be able to be readily opened or closed, must completely cover the cleaning machine openings when in place, and must be free of cracks, holes and other defects.

   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 the sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.

   v. The solvent cleaning machine shall have a primary condenser.

B. **Operational Restrictions**

1. The permittee shall control air disturbances across the solvent cleaning machine 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.

2. d. During startup of the solvent cleaning machine, the primary condensers shall be turned on before the sump

heater.

e. 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.

f. 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.

g. The solvent cleaning machine and its associated controls shall be maintained as recommended by the manufacturers of the equipment; or maintained using alternative maintenance practices that have been demonstrated to the satisfaction of the regulating agency (appropriate Ohio EPA District Office or local air agency) to achieve the same or better results as those recommended by the manufacturer.

h. 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 (Ohio EPA, Northeast District Office).

i. 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.

j. Sponges, fabric, wood, paper products and/or other porous or absorbent material shall not be cleaned.

k. 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.
The permittee shall meet all of the following required work and operational practices:

a. 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).

b. 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 regulating agency.

c. Parts baskets or parts shall not be removed from the solvent cleaning machine until dripping has stopped.

3. The permittee shall conduct periodic monitoring of the parameters used to demonstrate compliance, as described in the "Monitoring and Record keeping Requirements" section of this permit; and these parameters shall meet the requirements established in this permit.

4. The permittee shall ensure that the chilled air blanket temperature, measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point.

5. The permittee shall assure that the dwell time for parts to remain in the freeboard area above the vapor zone is no less than 35% of the time determined for the part or parts basket to cease dripping. The permittee shall:

a. 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

b. ensure that, after cleaning, each part is held in the solvent cleaning machine freeboard area above the vapor zone for the proper dwell time, as determined for that particular part or parts basket or for the maximum dwell time determined using the most complex part type or part's basket.

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

1. Using a thermometer or thermocouple, the permittee shall measure and record, on a weekly basis, the temperature at the center of the air blanket during the idling mode.

2. The permittee shall calculate and record the actual dwell time on a monthly basis, by measuring the period of time parts are held within the freeboard area of the solvent cleaning machine after cleaning. The appropriate dwell time for each part or parts basket shall be calculated using the following procedures:

a. The permittee shall 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 permittee shall assure that 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 above (a).

3. The permittee shall maintain records in written or electronic form specified in the following for the lifetime of this emissions unit:

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 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 susitituted.

c. If a dwell is used to comply with these standards, records of the tests required in section E.1.b of these terms and conditions to determine an appropriate dwell time for each part or parts basket.

d. Records of the halogenated HAP solvent content for each solvent used in this solvent cleaning machine

subject to 40 CFR Part 63, subpart T.

4. The permittee shall maintain record specified in the following either in electronic or written form for a period of 5 years:

   a. The results of control device monitoring required under section C.1 and C.2 of these terms and conditions.

   b. Information on the actions taken to comply with section B.3 - B.5 of these terms and conditions. This information shall include records of 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 accepted levels.

5. The permittee shall record daily number of batches of parts cleaned.

D. **Reporting Requirements**

1. The permittee shall submit an initial statement of compliance to the regulating agency no later than 150 days following startup of the unit. This report shall include the following information:

   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 (options) used to achieve compliance;

   d. for each piece of control equipment required to be monitored, a list of the parameters monitored, and the values of these parameters measured on or during the first month after the compliance date;

2. The permittee shall submit an annual report by February 1 of each year, following the year for which the report is being made. This report shall contain the following information:

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

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

3. 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 submit quarterly exceedance reports, until such time that the permittee requests and receives approval from the regulating agency of less frequent reporting requirements. 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 regulating 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.

4. 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:

   a. The permittee shall submit a deviation report 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.

   b. The permittee shall submit a deviation report if the temperature of the chilled air blanket, measured at its center, was greater than 30% of the solvent's boiling point and was not adjusted within 15 days of detection.

5. Each exceedance report shall be delivered or post marked by the 30th day following the reporting period. Each exceedance report shall contain the following information:

   a. if an exceedance has occurred, the standard, monitored parameter, emission limit, or other requirement that was exceeded; the reason for the exceedance; and the actions taken to correct any future exceedance of the same limit or requirement;

   b. 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

   c. if no exceedance has occurred, a statement to that effect shall be submitted.

6. 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 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 primary 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 in the terms and conditions of this permit shall be determined in accordance with the following methods:

a. Emission Limitation: 8.98 TPY

Applicable Compliance Method:

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 for each emissions unit shall be determined in accordance with the following procedures:

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

SAIi= solvent/air interface area of solvent cleaning machine i (square meters).

TPY limit = PTEi X 0.0011023

b. Emissions Limitation/Control Requirements
The proper dwell time for the parts to remain in the freeboard area above the vapor zone shall be no less than 35% of the amount of time for the part or parts basket to cease dripping once placed in the vapor zone.

Applicable Compliance Method:
The permittee shall (a) determine the amount of time for the part or parts basket (at room temperature) to cease dripping once placed in the vapor zone, and (b) the actual dwell time by measuring the period of time that parts are held within the freeboard area of the solvent cleaning machine. The value of (b) divided by (a) shall be no less than 35%. This determination shall be made for each type part cleaned, or may be determined using the part that would be demonstrated to hold or retain the most solvent.

c. Emissions Limitation/Control Requirements:
The chilled air blanket temperature measured at the center of the air blanket shall be no greater than 30% of the solvent's boiling point.

Applicable Compliance Method:
The solvents boiling point shall be documented and the permittee shall use a thermometer or thermocouple to measure the temperature at the center of the air blanket during the idling mode.

d. Emission Limitation: 49.2 pounds OC per day

Applicable Compliance Method:
To determine the daily emission rate of OC, the following equation shall be used:

E = P X EF

Where:

E = OC emissions, in pounds per day;

P = the number of batches of parts cleaned per day, in batches per day; and

EF = emission factor for uncontrolled OC emissions, which is 16.4 pounds per batch

2. The permittee shall demonstrate compliance with the selected control combination, freeboard refrigeration device and dwell, through compliance with the "Additional Terms and Conditions", "Operational Restrictions", and "Monitoring and Recordkeeping Requirements" sections of this permit.

F. **Miscellaneous Requirements**

1. The permittee has selected and shall employ freeboard refrigeration device and dwell, as the control combination required from Table 1, found in 40 CFR 63.463.