

Facility ID: 1677050161 Issuance type: Final State Permit To Operate

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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: 1677050161 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>
open top vapor degreaser using trichloroethylene	OAC rule 3745-31-05 (PTI 16-1584)	2.8 tpy of trichloroethylene

2. Additional Terms and Conditions

- (a) The permittee shall ensure that the trichloroethylene monthly emissions from the solvent cleaning machine do not exceed 150 kilograms/square meter/month based on a rolling, 3-month average. The control measures required by OAC rule 3745-21-09(O) are equal to or less stringent than the control measures established in accordance with 40 CFR Part 63, Subpart T.

B. Operational Restrictions

1. The permittee shall meet all of the following required work and operational practices:
 - a. Control air disturbances across the solvent cleaning machine opening(s) by incorporating the following control equipment or techniques:
 - i. Cover(s) for the solvent cleaning machine 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.

OR

 - ii. 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.
- b. 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.
- c. 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).
- d. 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 field Office or local air agency).
- e. Parts baskets or parts shall not be removed from the solvent cleaning machine until dripping has stopped.
- f. During startup of the solvent cleaning machine, the primary condensers shall be turned on before the sump heater.
- g. 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.

- h. 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.
- i. 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 field Office or local air agency) to achieve the same or better results as those recommended by the manufacturer.
- j. 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 field Office or local air agency).
- k. 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.
- l. Sponges, fabric, wood, and paper products shall not be cleaned.
- C. Monitoring and/or Record Keeping Requirements**
1. The permittee shall maintain a log of solvent additions and removals for the solvent cleaning machine.
2. The permittee shall demonstrate compliance with the 3-month rolling average monthly emissions of less than or equal to 150 kilograms/square meters/month on a monthly basis as follows:
- a. The permittee shall, on the first operating day of every month, 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. The solvent cleaning machine does not have to be emptied and filled with fresh unused solvent prior to the calculations.
- b. The permittee shall on the first operating day of the month comply with the following:
- i. Using the records of solvent additions and removals for the previous monthly reporting period, determine Trichlorethylene emissions using the appropriate equation specified in the "Testing Requirements" section of this permit.
- ii. Determining the total amount of Trichlorethylene removed from the solvent cleaning machine in solid waste during the most recent monthly reporting period (kilograms of solvent per month) as specified in the "Testing Requirements" section of this permit.
- iii. Determining the monthly rolling average for the 3-month period ending with the most recent reporting period using the appropriate equation specified in the "Testing Requirements" section of this permit.
3. The permittee shall maintain the following records either in electronic or written form for a period of 5 years:
- a. the dates and amounts of trichlorethylene that are added to the solvent cleaning machine;
- b. the trichlorethylene composition of wastes removed from the cleaning machines using the procedures described in the "Testing Requirements" section of this permit; and
- c. calculation sheets showing how the monthly emissions and the rolling, 3-month average emissions of trichlorethylene from the solvent cleaning machine were determined, and the results of all calculations.
- D. Reporting Requirements**
1. The permittee shall submit an initial statement of compliance which shall contain the following information:
- a. the name and address of the permittee of the solvent cleaning machine;
- b. the address (i.e., physical location) of the solvent cleaning machine;
- c. the solvent/air interface area for the solvent cleaning machine; and
- d. the results of the first 3-month average of trichlorethylene emission calculations.
2. The permittee shall submit an annual solvent emission report by February 1st of each year. The report shall cover the previous calendar year and shall contain the following information:
- a. the size (solvent/air interface area) and type of the solvent cleaning machine;
- b. the average monthly trichlorethylene consumption for the solvent cleaning machine, in kilograms per month; and
- c. the rolling, 3-month average of trichlorethylene emissions estimates calculated each month using the method as described in the "Testing Requirements" section of this permit.
3. The permittee shall submit an exceedance report on a semiannual basis. If the trichlorethylene rolling, 3-month 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 and shall contain the following

information:

- 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; and
- b. if no exceedance has occurred, a statement to that effect.

E. Testing Requirements

1. The permittee shall on the first operating day of every month:

a. 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 soil. 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 as specified in paragraph (1) (b) below. The solvent cleaning machine does not have to be emptied and filled with fresh unused solvent prior to the calculations.

b. Comply with the following requirements:

i. Using the records of all solvent additions and removals for the three previous monthly reporting periods required in the "Monitoring and/or Record Keeping Requirements" section of this permit, determine solvent emissions (E_i) using equation (1) below for cleaning machines with a solvent/air interface and equation (2) below for cleaning machines without a solvent/air interface:

$$E_i = (SA_i - LSR_i - SSR_i) / AREA_i \dots(1)$$

$$E_n = SA_i - LSR_i - SSR_i \dots(2)$$

Where:

E_i = 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 are per month).

E_n = the total halogenated HAP solvent emissions from the solvent cleaning machine during the most recent monthly reporting period I (kilograms of solvent per month).

SA_i = 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_i = the total amount of halogenated HAP liquid solvent removed from the solvent cleaning machine during the most recent monthly reporting period I (kilograms of solvent per month).

SSR_i = the total amount of halogenated HAP liquid solvent removed from the solvent cleaning machine in solid waste, obtained as described below in paragraph (b) of this section, during the most recent monthly reporting period I (kilograms of solvent per month).

AREA_i = the solvent /air interface area of the solvent cleaning machine (square meters).

ii. Determine SSR_i from tests conducted using reference method 25d or from engineering calculations included in the compliance report.

iii. Determine the monthly rolling average EA for the 3-month period ending with the most recent reporting period using equation (3) for cleaning machines with a solvent/air interface.

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

Where:

E_{Ai} = 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_{An} = the average halogenated HAP solvent emissions over the preceding 3 monthly reporting periods (kilograms of solvent per month).

E_i = 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).

E_n = halogenated HAP solvent emissions for each month (j) for the most recent 3 monthly reporting periods (kilograms of solvent per month).

- j₁ = the most recent monthly reporting period.
- j₂ = the monthly reporting period immediately prior to j = 1.
- j₃ = the monthly reporting period immediately prior to j

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:

$$PTE_i = H_i \times W_i \times SA_i$$

Where:

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

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

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

W_i = 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.

SA_{li} = 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.

b. Sum the PTE_i for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.

F. **Miscellaneous Requirements**

1. None