

Facility ID: 1409040156 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: 1409040156 Emissions Unit ID: L002 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>
In-line conveyorized vapor degreaser with cover, primary condenser, and freeboard refrigeration device.	OAC 3745-31-05 (PTI 14-4350)	18.3 lbs VOC/hr and 4.88 TPY VOC The hourly VOC emissions limit is based on the emissions unit's PTE. Therefore, no hourly records are required to demonstrate compliance with this limit.
	40 CFR Part 63, Subpart T	See A.2. Less stringent than the limits established per OAC 3745-31-05.
	OAC 3745-21-09(O)	Less stringent than the limits established per OAC 3745-31-05.

2. Additional Terms and Conditions

- (a) The solvent cleaning machine shall employ an idling and downtime mode cover that may be readily opened or closed, that completely covers the cleaning machine openings when in place, and is free of cracks, holes and other defects.
 The solvent cleaning machine shall have a freeboard ratio of 1.0 or greater.
 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.
 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.
 The solvent cleaning machine shall have a primary condenser.
 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.
 The solvent cleaning machine shall be equipped with a freeboard refrigeration device.
 A condenser flow switch and thermostat or any other device shall be employed which shuts off the sump heat if the condenser coolant is either not circulating or too warm.

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 cover(s) to the solvent cleaning machine. The cover(s) 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.
 - 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 must 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 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 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.
 - h. 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 Hamilton County Department of Environmental Services to achieve the same or better results as those recommended by the manufacturer.
 - i. Each operator of the solvent cleaning machine shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in 40 CFR 63 Subpart T, Appendix B if requested during an inspection by the Hamilton County Department of Environmental Services.
 - j. 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 would not allow liquid solvent to drain from the container.
 - k. Sponges, fabric, wood, and paper products shall not be cleaned in the solvent cleaning machine.
 - l. Use no workplace fans near the degreaser opening, and ensure that exhaust ventilation does not exceed sixty five cubic feet/minute/square foot of degreaser opening, unless a higher rate is necessary to meet Occupational Safety and Health Administration requirements.
 - m. Minimize openings during operation so that entrances and exits silhouette workloads with an average clearance between the parts and the edge of the degreaser opening of less than ten percent of the width of the opening.
 - n. Store waste solvent only in covered containers.
 - o. Repair solvent leaks immediately, or shut down the degreaser.
 - 2. The permittee shall comply with the following requirements:
 - a. The permittee shall ensure that the chilled air blanket temperature (in Degrees Fahrenheit), measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point.
 - b. The permittee shall ensure that the idling-mode cover is in place whenever parts are not in the solvent cleaning machine and completely covers the cleaning machine when in place.
 - c. The permittee shall ensure that the idling-mode cover is maintained free of cracks, holes and other defects.
 - 3. An exceedance has occurred if the requirements of Term and Condition B.2.b. have not been met. An exceedance has occurred if the requirements of Terms and Conditions B.2.a. and B.2.c. have not been met and are not corrected within 15 days of detection. Adjustments or repairs shall be made to the solvent cleaning system or the control device to reestablish required levels. The parameters must be remeasured immediately upon adjustment or repair and demonstrated to be within required limits.
 - 4. The use of cleaning solvent shall not exceed 800 gallons per year.
- C. Monitoring and/or Record Keeping Requirements**
- 1. 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.
 - 2. The permittee shall conduct monitoring and record the results on a monthly basis for the idling-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.
 - 3. 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 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.
 - 4. 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.
5. 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 by Terms and Conditions C.1., C.2., and C.3.
 - b. Information on the actions taken to comply with Terms and Conditions B.2., 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 accepted levels.
 - c. Estimates of annual trichloroethylene consumption for the solvent cleaning machine.

D. Reporting Requirements

1. The permittee shall submit an annual report by February 1 of each year for the preceding calendar 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 Part 60.463(d)(10)."
 - b. An estimate of solvent consumption during the reporting period.
2. The permittee shall submit an exceedance report on a semiannual basis (February 15 and July 15). This report shall identify any exceedance, as determined in Term and Condition B.3 of the requirements of T&C B.1., B.2., and B.4.. If an exceedance of Terms and Conditions B.1., B.2., and B.4. 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: (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 in the terms and conditions of this permit, and (3) the Director 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 Terms and Conditions B.2. 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 or a piece of equipment has not been inoperative, out of control, repaired, or adjusted, a statement to that effect shall be submitted.

E. Testing 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 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 using the following equation:

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

Where:

PTE_i = the potential to emit for the solvent cleaning machine i (kilograms of 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.

SAI_i = 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/air interface area shall calculate a solvent/air interface area using the procedure outlined in paragraph (b) below.

- 2. 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.

3. Compliance with the annual VOC emissions limit shall be demonstrated by the emission factors, control efficiencies (if applicable) and the operational parameters in PTI application number 14-4350 as submitted on 6/9/97.
4. Compliance with the usage limitations shall be demonstrated by the record keeping in term C.1.

F. **Miscellaneous Requirements**

None