

## AIR EMISSIONS SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Hartman Electrical Mfg.** located in **Richland County**. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table below. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

<u>OHIO EPA E.U. NUMBER</u>	<u>EMISSIONS UNIT IDENTIFICATION DESCRIPTION</u>	<u>BAT DETERMINATIO N</u>	<u>APPLICABLE FEDERAL &amp; OAC RULES</u>	<u>PERMIT ALLOWABLE MASS EMISSIONS OR CONTROL &amp; USAGE REQUIREMENTS</u>
L001	Batch trichloroethylene (TCE) open top vapor degreaser	Compliance with 40 CFR Part 63, Subpart T, the permit allowable mass emissions and the terms and conditions of this permit	3745-31-05  40 CFR Part 63, Subpart T  3745-21-09(O)	1.1 TPY Organic Compounds (OC)  30.7 lbs OC/ft <sup>2</sup> /month (184 lbs OC/month) based upon a 3-month rolling average  Control, design and work practice requirements (See AST&C)

### SUMMARY

#### TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
OC	1.1

## **Introduction**

The purpose of this Permit to Install (PTI) is to allow for the installation of a batch trichloroethylene open top vapor degreaser at Hartman Electrical Mfg., emission unit number L001. This permit will include federally enforceable restrictions on L001 as the emission unit is subject to the Maximum Achievable Control Technology (MACT) requirements under 40 CFR Part 63, Subpart T. The facility has chosen to be subject to the emissions limitations under 63.464

### **A. Applicable Emission Limitations and/or Control Requirements**

1. The permittee shall achieve compliance with all applicable provisions of subpart T immediately upon startup.
2. The permittee shall comply with either 1 or 2 of the following requirements:
  - a. If the cleaning machine has a solvent/air interface, then the facility shall maintain a log of solvent additions and deletions for each cleaning machine, and ensure that the emissions from each solvent cleaning machine are equal to or less than the applicable emission limits presented in table 5 of subpart T, using the procedures in § 63.465(b) and (c).

#### **OR**

- b. If the cleaning machine is a batch vapor cleaning machine and does not have a solvent/air interface, the facility shall maintain a log of solvent additions and deletions for each solvent machine, and ensure that the emissions from each solvent cleaning machine are equal to or less than the following appropriate limits:
  - I. For cleaning machines with a cleaning capacity that is less than or equal to 2.95 cubic meters, the emission limit shall be determined using table 6 or equation 1 found in subpart T. If using table 6, and the cleaning capacity falls between two cleaning capacity sizes, then the lower of the two emission limits applies.

- ii. For cleaning machines with a cleaning capacity that is greater than 2.95 cubic meters, the emission limit shall be determined using equation 1 of subpart T.
3. The permittee shall demonstrate compliance with the applicable 3-month rolling average monthly emission limit on a monthly basis as described in 63.465(b) and (c). If the applicable 3-month rolling average emission limit is not met, an exceedance has occurred. All exceedances shall be reported as required in 63.468(h) of subpart T.

## **B. Operational Restrictions**

1. Open top vapor degreaser, emissions unit L001, shall comply with the following operating restrictions:
  - a. Equip the open top vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone.
  - b. Install the following safety switches:
    - i. A condenser thermostat or any other device which shuts off the sump heat if the condenser coolant is either not circulating or too warm;
    - ii. A spray safety switch which shuts off the spray pump if the vapor level drops below any fixed spray nozzle;
    - iii. A vapor level control thermostat or any other device which shuts off the sump heat when the vapor level rises too high; and
    - iv. 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.
  - c. Install one of the following devices:

- I. A freeboard with a freeboard ratio greater than or equal to 0.75, and if the open top degreaser opening is greater than ten square feet, the cover must be powered or equipped with mechanical features whereby it can readily closed when the degreaser is not in use;
  - ii. Refrigerated condenser;
  - iii. Enclosed design (cover or door opens only when the dry part is actually entering or exiting the open top vapor degreaser);
  - iv. Carbon adsorption system, with ventilation greater than or equal to fifty cubic feet per minute per square foot of air/solvent interface (when cover is open), and exhausting less than twenty-five parts per million of solvent averaged over one complete adsorption cycle; or
  - v. A control system, demonstrated to have control efficiency equivalent to or greater than any of the above, and approved by the director.
- d. Operate and maintain the open top vapor degreaser in accordance with the following practices to minimize solvent evaporation from the unit:
- I. Keep the cover closed at all times except when the processing work loads through the degreaser.
  - ii. Minimize solvent carryout by:
    - (a) Racking parts so that solvent drains freely and is not trapped.
    - (b) Moving parts in and out of the degreaser at less than eleven feet per minute.

- © Holding the parts in the vapor zone at least thirty seconds or until condensation ceases, whichever is longer.
  - (d) Tipping out any pools of solvent on the cleaned parts before removal from the vapor zone.
  - (e) Allowing parts to dry within the degreaser for at least fifteen seconds or until visually dry, whichever is longer.
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- iii. Clean only materials that are neither porous nor absorbent.
  - iv. Occupy no more than one-half of the degreaser's open-top area with a workload.
  - v. Always spray within the vapor level.
  - vi. Repair solvent leaks immediately, or shut down the degreaser.
  - vii. Store waste solvent only in covered containers.
  - viii. Operate the cleaner such that water cannot be visually detected in solvent exiting the water separator.
  - ix. Use no ventilation fans near the degreaser opening.
  - x. When the cover is open, do not expose the open top vapor degreaser to drafts greater than 131 feet/minute, as measured between three and six feet upwind and at the same elevation as the tank lip.
  - xi. If a lip exhaust is used on the open top vapor degreaser, do not use a ventilation rate that exceeds sixty-five cubic feet/minute/square foot of degreaser open

area, unless a higher rate is necessary to meet occupational safety and health administration requirements.

- xii. Provide permanent, conspicuous label, summarizing the operating procedures.

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

1. The permittee shall maintain records, in written or electronic form, of the following for a period of **five years**:
  - a. The dates and amounts of solvent added to the solvent cleaning machine.
  - b. The solvent composition of wastes removed from cleaning machines as determined using the procedure in 63.465(c)(2).
  - c. Calculation sheets showing how monthly emissions and the rolling 3-month average emissions from the solvent cleaning machine were determined, and the results of all calculations.
2. The permittee, on the first operating day of every month, shall:
  - a. Ensure that the solvent cleaning machine system contains only clean solvent which may be recycled or 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 as specified in 63.465(c). The solvent cleaning machine does not have to be emptied and filled with fresh unused solvent prior to the calculations.
  - b. Using the records of all solvent additions and deletions for the previous monthly reporting period required under 63.464(a), determine solvent emissions ( $E_I$ ) using equation 2 for cleaning machines with a solvent/air interface and equation 3 for cleaning machines without a solvent/air interface. Both

equations are found in 63.465 subpart T.

- c. Determine the monthly rolling average, EA, for the 3-month period ending with the most recent reporting period using equation 4 for cleaning machines with a solvent/air interface or equation 5 for cleaning machines without a solvent/air interface. Both equations are found in 63.465.
3. If the cleaning machine does not have a solvent/air interface, the permittee shall maintain records on the method used to determine the cleaning capacity of the cleaning machine.
4. Any owner or operator of a solvent metal cleaning operation shall maintain records of the following information in a readily accessible location for at least five years and shall make these records available to the director upon verbal or written request;
  - a. All control equipment maintenance such as replacement of the carbon in a carbon adsorption unit.
  - b. The results of all emissions tests conducted to demonstrate compliance with the requirements of B.1.c.iv and B.1.c.v.
5. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings, if a strip-chart recorder is employed, for continuous monitoring instrumentation, and copies of all reports required by the permit. Such records may be maintained in computerized form.

#### **D. Reporting Requirements**

1. The permittee shall submit an initial notification report to the Administrator using the one of the following applicable criteria:
  - a. New sources for which construction or reconstruction had commenced and initial startup had not occurred before 12/2/94, shall submit the report as soon as practicable before startup but no later than 1/31/95.

- b. New sources for which construction or reconstruction commenced after 12/2/94 shall submit the report as soon as practicable before the construction or reconstruction is planned to commence.
- 2. The Initial Notification Report shall include all the information required in 63.5(d)(1) of subpart A with the following revisions and additions:
  - a. A brief description of each solvent cleaning machine including machine type (batch vapor, batch cold, vapor in-line, or cold in-line), solvent/air interface area, and existing controls.
  - b. The anticipated compliance approach for each solvent cleaning machine.
  - c. In lieu of 63.5(d)(1)(ii)(H) of subpart A, the facility shall report an estimate of annual halogenated HAP solvent consumption for each solvent cleaning machine.
- 3. This facility shall submit, to the Administrator, an initial statement of compliance for each solvent cleaning machine using one of the following applicable criteria:
  - a. For existing sources, this report shall be submitted to the Administrator no later than 150 days after the compliance date of 63.460(d).
  - b. For new sources, this report shall be submitted to the Administrator no later than 150 days after startup or 5/1/95 whichever is later.
- 4. The statement of compliance shall include the following information:
  - a. The name and address of the owner or operator.
  - b. The address of the cleaning machine(s).
  - c. The solvent/air interface area for each solvent cleaning machine or, for cleaning machines without solvent/air interface, a description of the method used to determine the cleaning capacity and the results.

- d. The results of the first 3-month average emissions calculations.
5. This facility shall submit a solvent emission report every year which shall contain the following:
- a. The size and type of each unit subject to subpart T (solvent/air interface area or cleaning capacity).
  - b. The average monthly solvent consumption for the solvent cleaning machine in kilograms per month.
  - c. The 3-month rolling average emissions estimates calculated each month using the method described in 63.465(c).

6. This facility shall submit an exceedance to the Administrator semiannually except when the Administrator determines on a case-by-case basis that more frequent reporting is necessary. Once the exceedance has occurred, a quarterly reporting format shall be followed until a request to reduce reporting frequency is approved.

Exceedance reports shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. The report shall include the applicable information as follows:

- a. Information on the actions taken to comply with 63.463(e)&(f). This information shall include records of written or verbal orders of replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.
  - b. If an exceedance has occurred, the reason for the exceedance and a description of the actions taken.
  - c. If no exceedances have occurred, or a piece of equipment has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.
7. This facility is subject to Title V permitting requirements and may be exempt by the State from applying for a part 70 permit until 42

months after the State's part 70 program is approved by USEPA. Another date may be established to assure that subject sources obtain a permit by 5 years after a part 70 program is approved.

**E. Testing Requirements/Compliance Method Determination**

1. This facility shall determine the concentration of the solvent(s) used in each cleaning machine by using EPA test method 18, material safety data sheets, or engineering calculations.
2. Compliance with the emission limitations listed in the Air Emission Summary of this PTI for emission unit L001 shall be determined in accordance with the following methods:

- a. Emission Limitation: 30.7 lbs OC/ft<sup>2</sup>/month (184 lbs OC/month) based upon a 3-month rolling average

Applicable Compliance Method: The permittee shall demonstrate compliance with the applicable 3-month rolling average monthly emission limit on a monthly basis as described in 63.465(b) and (c).

- b. Emission Limitation: 1.10 tons OC/yr

Applicable Compliance Method: Compliance with the tons/yr emissions limit will be assumed as long as the emissions unit is in compliance with the 30.7 lbs OC/ft<sup>2</sup>/month per 3-month rolling average.

**F. Miscellaneous Requirements**

1. This facility shall determine their potential to emit from all solvent cleaning operations using the procedures described in 63.465 (e)(1) through (e)(3). The facility's total potential to emit shall be the sum of the HAP emissions from all solvent cleaning operations plus all HAP emissions from other sources within the facility.