

## Introduction

This Permit to Install (PTI) is being done to allow Kennedy Manufacturing to correct a permitting deficiency at their facility located § 63.463 in Van Wert OH. An In-Line Trichloroethylene cleaning machine, emission unit No. L003, and a solvent wipe station, emission unit No. P801, were installed without first obtaining a PTI. This permit will also include federally enforceable restrictions on L003 as this emission unit is subject to the Maximum Achievable Control Technology (MACT) requirements under 40 CFR Part 63, Subpart T.

### A. Allowable Mass Emission Limitations and/or Control Requirements:

1. The permittee shall ensure that emission unit L003 conforms to the following design/control requirements:
  - a. per MACT requirement § 63.463(a):
    - i. have either:
      - (a). an idling or downtime mode cover that may be readily opened or closed and that completely covers the machine openings when in place and are be free of cracks, holes, or other defects;
      - OR
      - (b). the control technique of a reduced room draft as described in § 63.463(e)(2)(ii);
    - ii. have a freeboard ratio of at least 0.75;
    - iii. be equipped with an automated parts handling system capable of moving parts or parts baskets at a maximum speed of 3.4 meters per minute from the initial loading of parts through removal of cleaned parts;
    - iv. be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils;
    - v. be equipped with a vapor level control device which shuts off the sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser; and
    - vi. be equipped with a primary condenser.

b. per MACT requirement § 63.463(c):

- i. employ one of the control combinations listed in table 4 of Subpart T or other equivalent methods of control using the procedure in § 63.469;

**OR**

- ii. demonstrate that the emission unit can achieve and maintain an idling emission limit of 0.10 kilograms per hour per square meter of solvent/air interface area using the procedures in § 63.465(a).

**B. Operational Restrictions:**

1. The permittee shall ensure that the operators of emission unit L003 comply with all of the following applicable work and operational practices:

a. per MACT requirement § 63.463(d):

- i. have either:

- (a). covers shall be in place during the idling mode, and during the downtime mode unless the solvent has been removed from the machine or maintenance or monitoring is being performed that requires the cover(s) not to be in place;

OR

- (b). to maintain the control technique of a reduced room draft as described in § 63.463(e)(2)(ii);
- ii. 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.
- iii. Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes shall be tipped or rotated before being removed from the machine unless an equally effective approach has been approved by the OEPA.
- iv. Parts or parts baskets shall not be removed from the machine until dripping has stopped.
- v. During startup of each vapor cleaning machine, the primary condenser

shall be turned on before the sump heater.

- vi. During shutdown of each vapor cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.
  - vii. When solvent is added or drained from the machine, the solvent shall be transferred using threaded or other leak-proof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface.
  - viii. The machine and associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the USEPA's satisfaction to achieve the same or better results as those recommended by the manufacturer, pursuant to the provisions of § 63.460(e).
  - ix. Each operator of the machine shall complete and pass the applicable sections of the test of solvent cleaning operating procedures (in appendix B of Subpart T) if requested during an inspection by the OEPA.
  - x. Waste solvent, still 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.
  - xi. Sponges, fabric, wood/paper products shall not be cleaned.
- b. per OAC requirement 3745-21-09 (O):
- i. in addition to the products listed in (B)(1)(a)(xi) above, any other products that are porous or absorbent shall not be cleaned.
  - ii. The repair of solvent leaks must be done immediately, or the machine must be shutdown.
  - iii. Openings shall be minimized during the operation so that entrances and exits silhouette workloads with an average clearance between the parts and the edge of the machine opening less than ten percent of the width of the opening.
  - iv. The permittee shall use no workplace fans near the machine opening, and ensure that exhaust ventilation does not exceed sixty five cubic feet per minute per square foot of cleaning machine opening, unless a higher rate is necessary to meet Occupational Safety and Health Administration

requirements.

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

1. The permittee shall comply with the following monitoring requirements for emission unit L003:
  - a. per MACT requirement § 63.463(e):
    - i. Conduct monitoring of each control device used to comply with § 63.463 of Subpart T as provided in § 63.466.
    - ii. Determine during each monitoring period whether each control device used to comply with the Subpart T standards meets the following:
      - (a). If a freeboard refrigeration device is used to comply with these standards, 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.
      - (b). If a reduced room draft is used to comply with these standards, the permittee shall comply with the following:
        - (i) Ensure that the flow 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 at any time as measured using the procedures in § 63.466(d);

AND

- (ii) Establish and maintain the operating conditions under which the wind speed was demonstrated to be 15.2 meters per minute or less as described in § 63.466(d).
- (c). If a working-mode cover is used to comply with these standards, the permittee shall comply with the following:
  - (i). Ensure that the cover opens only for part entrance and removal and completely covers the machine openings when closed;

AND

- (ii). Ensure the working mode cover is maintained free of cracks, holes, and other defects.
- (d). If an idling-mode cover is used to comply with these standards, the permittee shall comply with the following:
  - (i). ensure that the cover is in place whenever parts are not in the solvent cleaning machine, completely covers the cleaner openings when in place;

AND

- (ii). Ensure the working mode cover is maintained free of cracks, holes, and other defects.
- (e). If a dwell is used to comply with these standards, the permittee shall comply with the following:
  - (i). determine the appropriate dwell time for each part or parts basket or determine the maximum dwell time using the most complex part type or parts basket as described in § 63.465(d);

AND

- (ii). Ensure that, after cleaning, each part is held in the freeboard area of the solvent cleaning machine 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.
- iii. If any of the requirements in condition (C)(1) above are not met, the permittee shall determine whether an exceedance has occurred using the following criteria:
  - (a). An exceedance has occurred if the requirements of § 63.463 (e)(2)(ii)(B), (iii)(A), (iv)(A), (v), (vi)(B), or (vi)(C) have not been met.
  - (b). An exceedance has occurred if the requirements of § 63.463 (e)(2)(i), (ii)(A), (iii)(B), (iv) (B), or (vi)(A) 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 control device to reestablish required levels and immediately remeasure

the parameter to demonstrate that it is within required limits.

b. per MACT requirement § 63.466(a-g):

- i. If a freeboard refrigeration device is used, the permittee shall use a thermometer or thermocouple to measure the temperature at the center of the air blanket during the idling mode on a **weekly** basis.
- ii. If a cover of any type is used, the permittee shall conduct 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 on a **monthly** basis.
- iii. If a dwell is used, 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 on a **monthly** basis.
- iv. If complying with the equipment or idling standards, the permittee shall monitor the hoist speed as follows:
  - (a). The hoist speed shall determine by measuring the time it takes the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes.
  - (b). The monitoring shall be conducted monthly. 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 occurs during the quarterly monitoring, the frequency shall return to monthly until another year of compliance without an exceedance is demonstrated.
  - (d). If in the initial compliance report it can be demonstrated to the OEPA that the hoist speed cannot exceed 3.4 meters per minute, the required frequency shall be quarterly including during the first year of compliance.
- v. If a reduced room draft is used to comply with these standards, the permittee shall monitor the following:
  - (a). If a reduced room draft is maintained by controlling room parameters the permittee shall conduct an initial monitoring test of the windspeed and room parameters, quarterly monitoring of windspeed, and weekly monitoring of room parameters as follows:

- (i). Measure the windspeed within 6 inches above the top of the freeboard area using the procedures specified below:
    - [a]. Determine the direction of the wind current by slowly rotating a velometer or similar device until the maximum speed is located.
    - [b]. Orient the velometer in the direction of the wind current at each of the four corners of the machine.
    - [c]. Record the reading for each corner.
    - [d]. Average the values obtained at each corner and record the average wind speed.
  - (ii). Monitor on a weekly basis the room parameters established during the initial compliance test that are used to achieve the reduced room draft.
- (b). If a reduced room draft is maintained by the use of a full or partial enclosure the permittee shall conduct an initial monitoring test of the windspeed within the enclosure and monthly monitoring of the windspeed within the enclosure as follows:
- (i). Determine the direction of the wind current in the enclosure by slowly rotating a velometer inside the entrance to the enclosure until the maximum speed is located.
  - (ii). Record the maximum wind speed.
2. The permittee shall comply with the following record keeping requirements for emission unit L003:
- a. per MACT requirement § 63.467(a-d):
    - i. The permittee shall maintain records, in written or electronic form, of the following for the **lifetime** of emission unit L003:
      - (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 machine and all of its control devices. If the exact date is not known, a letter certifying that the cleaning machine and its control devices were installed prior to, on,

or after 11/29/93.

- (c). If a dwell is used to comply with these standards, records of the tests, required in § 63.465(d), to determine an appropriate dwell time for each part or parts basket.
  - (d). If complying with the idling emission limit standards of § 63.463 (b)(1)(ii), (b)(2)(ii), (c)(1)(ii), or (c)(2)(ii) records of the initial performance test, including the idling emission rate and values of the monitoring parameters measured during the test.
  - (e). Records of the halogenated HAP solvent content for each solvent used that is subject to the provisions of Subpart T.
- ii. The permittee shall maintain records, in written or electronic form, of the following for a period of **five years** for emission unit L003:
- (a). The results of control device monitoring required under § 63.466.
  - (b). Information on the actions taken to comply with the provisions of § 63.463(e) and (f). 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.
  - (c). Estimates of the annual solvent consumption, in tons per year. The annual emission rate shall be determined by multiplying the solvent density of the cleaning material in lbs of OC per gallon, by the volume of solvent consumed, in gallons, and divided by 2000 lbs per ton.

Note: The permittee may calculate annual OC emission rate in accordance with the following formula if waste solvent is sent off-site for reclamation/disposal:

$$\text{emission rate} = (\text{the total gallons of solvent used} \times \text{the solvent density}) \\ - (\text{the total gallons of waste solvent shipped offsite} \times \text{the average solvent content of the waste solvent})$$

3. The permittee shall collect and record the following information each day for emission unit P801:
- a. The company identification for each cleaning material employed.

- b. The OC content of each cleaning material, in pounds per gallon.
- c. The number of gallons of each cleaning material employed.
- d. The organic compound emission rate for each cleaning material, in pounds per day.
- e. The total organic compound emission rate for all cleaning material, in pounds per day (summation of d).
- f. The total number of hours the emission unit was in operation.
- g. If the total organic compound emission rate exceeds 8 pounds, the average hourly organic compound emission rate, in pounds per hour (e divided by f).
- h. The permittee shall also calculate the annual emissions from emissions unit No P801. These calculations shall be done in a manner consistent with the daily emission calculations described above.

## **E. Reporting Requirements**

1. The permittee shall submit the following reports for emission unit L003:
  - a. per MACT requirement § 63.468(a-d):
    - i. The permittee shall submit an annual report by February 1 of the year following the one for which the reporting is being made. This report shall include:
      - (a). A signed statement from the permittee stating that, "All operators of emission unit L003 have received training on the proper operation of solvent cleaning machines and their control devices sufficient to pass the test required in § 63.463(d)(10)."
      - (b). An estimate of the solvent consumption and emission rates for emission unit L003 during the reporting period.
    - ii. The permittee shall submit an exceedance report for emission unit L003 to the OEPA, NWDO semiannually except when the OEPA 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.
- iii. The permittee may reduce the above referenced frequency of reporting to semiannual if the following conditions are met:
- (a). Emission unit L003 has demonstrated a full year of compliance without an exceedance.
  - (b). Emission unit L003 continues to comply with all relevant record keeping and monitoring requirements specified in 40 CFR Part 63 Subparts A and T.
  - (c). The OEPA does not object to a reduced frequency of reporting for the emission unit as provided in 40 CFR Part 63 Subpart A.
2. The permittee shall notify the Ohio EPA, Northwest District Office, in writing of any deviations (excursions) from the emissions limitations and operational restrictions on emission unit P801 that have been detected by the testing, monitoring, and record keeping requirements specified in this permit. The permittee shall specify the probable cause of such deviations and any corrective actions or preventive measures which have been or will be taken. The notification shall include a copy of the pertinent daily record and shall be sent to the appropriate Ohio EPA District Office or local air agency within 45 days after the exceedance occurs.
3. The compliance status of the emissions units shall be reported pursuant to the annual certification required by OAC rule 3745-77-07(C)(5).
4. The actual annual emissions data for emissions unit P801 shall be reported pursuant to the fee emissions report required by OAC rule 3745-78-02(A).

## F. Testing Requirements/Compliance Method Determinations

1. The permittee 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. IF complying with the idling emission limit standards of § 63.463 (b)(1)(ii), (b)(2)(ii), (c)(1)(ii), or (c)(2)(ii) the permittee shall determine the idling emission rate of L003 using Reference Method 307 in Appendix A of Subpart T.
3. The permittee shall determine their potential to emit from the solvent cleaning operations using the procedures described in § 63.465 (e)(1) through (e)(3).
4. Compliance with the emission limitations/usage restrictions of this permit shall be determined in accordance with the following methods:

a. **Emissions Unit**                      **Emission Limitation**

P801	8.0 lbs OC/hr 40 lbs OC/day
------	--------------------------------

Applicable Compliance Method:

Compliance shall be based upon the record keeping specified in Section D above.

b. **Emissions Unit**                      **Emission Limitation**

P801	2.5 tons OC/yr.
L003	7.8 tons OC/yr.

Applicable Compliance Method:

Compliance shall be based upon the record keeping specified in Section D above.

## G. Miscellaneous Requirements

1. As an alternative to meeting the requirements of § 63.463 the permittee may elect to comply with the requirements of § 63.464. If the permittee chooses this option, the permittee would be required to notify the OEPA, NWDO, in writing, prior to implementation.

2. Per § 63.466(g), the permittee may elect to use alternative monitoring procedures. If the permittee chooses this option, the permittee would be required to provide notification to and approval from the OEPA, NWDO, in writing, prior to implementation.