Facility ID: 1677010989 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

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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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
batch open top vapor degreaser - Phillips #7225	OAC rule 3745-21-09(O)	See A.2.a below.
	40 CFR Part 63, Subpart T	See A.2.b through A.2.f below.

2. **Additional Terms and Conditions**

   (a) The requirements under OAC rule 3745-21-09(O) are either equivalent to or less stringent than the requirements under 40 CFR Part 63, Subpart T.
   The permittee shall ensure that the chilled air blanket temperature (in degrees F), measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point.
   The permittee shall comply with the following requirements:

   i. ensure that the cover is in place whenever parts are not in the solvent cleaning machine and completely covers the cleaning machine openings when in place; and

   ii. ensure that the idling-mode cover is maintained free of cracks, holes, and other defects.
   The permittee shall comply with the following requirements:

   i. ensure that the cover opens only for part entrance and removal and completely covers the cleaning machine openings when closed.

   ii. ensure that the working-mode cover is maintained free of cracks, holes and other defects.
   The permittee shall maintain a freeboard with a freeboard ratio equal to 1.0 or greater.
   The permittee shall ensure that the solvent cleaning machine conforms to the following design requirements:

   i. The idling and downtime mode cover 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 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 meet all of the following required work and operational practices:

   a. The 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.

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 District 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 District 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 District 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 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 Director (appropriate District Office or local air agency) 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.

2. 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); and

c. records of the halogenated HAP solvent content for the solvent used in the solvent cleaning machine.

3. The permittee shall maintain the following records in written or electronic form for a period of 5 years for the solvent cleaning machine:

a. the results of control device monitoring required in this section of the permit;

b. information on the actions taken to comply with 40 CFR 63.463 (e) and (f), 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 acceptable levels; and

c. estimates of annual perchloroethylene consumption for the solvent cleaning machine.

4. 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.

5. 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.

D. **Reporting Requirements**

1. The permittee shall submit an annual report by February 1 of each year for the preceding 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 60.463(d)(10)."; and

   b. an estimate of solvent consumption during the reporting period.

1. The permittee shall submit exceedance reports, on a semiannual basis, which summarize the following instances:

   i. if the cover, when closed, did not completely cover the cleaning machine openings or the cover was open at times other than for parts entrance or removal and/or the cover had cracks, holes or other defects, and no correction was made within 15 days of detection;

   ii. if the cover did not completely cover the cleaning machine openings when in place whenever parts were not in the solvent cleaning machine and/or if the cover had cracks, holes or other defects and no correction was made within 15 days of detection; and

   iii. if the temperature of the chilled air blanket, measured at the center of the air blanket, was greater than 30% of the solvent's boiling point, and no correction was made within 15 days of detection.
   Each exceedance report shall be delivered or post marked by the 30th day following the reporting period and shall contain the following information:

   i. 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

   ii. if no exceedance has occurred, 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 from within the facility. The potential to emit 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), in kilograms of solvent per year;

   Hi = the hours of operation for the solvent cleaning machine (i), in hours per year (8760 hours per year, unless otherwise restricted by a federally enforceable requirement);

   Wi = the working mode uncontrolled emission rate, in kilograms per square meter per hour (1.95 kilograms per square meter per hour for batch vapor and cold cleaning machines and 1.12 kilograms per square meter per hour for in-line cleaning machines); and

   SAIi = the solvent/air interface area of solvent cleaning machine (i), in square meters (section 63.461 defines the solvent/air interface area for those machines that have a solvent/air interface).
   Sum the PTEi for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.

F. **Miscellaneous Requirements**

1. None