Facility ID: 0228000269 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.

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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
Open top vapor degreaser using methylene chloride for metal parts cleaning.	OAC 3745-21-09(O)(3) 40 CFR 63.460 See Section F.	See Additional Terms and Conditions A.2 below.

2. **Additional Terms and Conditions**

(a) The OC emissions from this emission unit shall not exceed 49.2 pounds per day.
The annual OC emissions from this emission unit are limited to 8.98 tons per year.
The permittee shall ensure that the chilled air blanket temperature (in degree 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. Determine the appropriate dwell time for each type of part or parts basket, or determine the maximum dwell time using the most complex part type or parts basket as described in the "Testing Requirements" section of this permit.

ii. Ensure that, after cleaning, each part is held in the solvent cleaning machine freeboard area 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.
General Design Requirements

The permittee shall ensure that the solvent cleaning machine conforms to the following design requirements:

i. Use of an idling and downtime mode cover that 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 the 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. Control air disturbances across the solvent cleaning machine opening(s) by ensuring that the cover(s) to 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 (Ohio EPA, Northeast District Office).

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 Eaavent 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 (Ohio EPA, Northeast District Office) 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 (Ohio EPA, Northeast District Office).

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 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 of the actual dwell time. 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.

3. The permittee shall record the daily number of batches of parts cleaned.

D. **Reporting Requirements**

1. The permittee shall submit an initial statement of compliance no later than 150 days after December 2, 1997. Each initial statement of compliance shall contain the following:

a. The name and address of the permittee.

b. The address (i.e., physical location) of the solvnet cleaning machine.

c. A list of the control equipment used to achieve compliance.

d. A list of the parameters that are monitored and the values of these parameters measured on or during the first month after the compliance date for each piece of control equipment required to be monitored.

2. 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)."

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

3. The permittee shall submit an exceedance report on a semiannual basis. If the appropriate dwell time for each type part or parts basket or the maximum dwell time was not determined and if after cleaning, each part was not held in the solvent cleaning machine freeboard area above the vapor zone for the proper or the maximum dwell time for that particular part or parts basket, or 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, 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 (Ohio Environmental Protection Agency, Northeast District Office). 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 (Ohio Environmental Protection Agency, Northeast District Office) 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 40 CFR 63.463(e) and (f) including written and 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, a statement to that effect shall be submitted.

E. **Testing Requirements**

1. The permittee shall determine the appropriate dwell time for each part or parts basket using the following procedures:

a. Determine the amount of time for the part or parts basket to cease dripping once placed in the vapor zone. The part or parts basket used for this determination must be at room temperature before being placed in the vapor zone.

b. The proper dwell time for parts to remain in the freeboard area above the vapor zone is no less than 35 percent of the time determined in Section A.2.d of this permit.

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:

PTEi = Hi * Wi * SAIi

Where:

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

Hi = hours of operation for solvent cleaning machine i (hours per day or year). (8,760 hours per year, unless otherwise restricted by a federally enforceable requirement.)

Wi = 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.)

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

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. Emissions Limit: 49.2 pounds per day and 8.98 tons per year OC emissions.
Applicable Compliance Method: To determine the daily emission rate for OC, the following equation shall be used:

E = P x EF

Where:

E = OC emissions, in pounds per day.

P = the number of batches of parts cleaned per day, in batches per day.

EF = emission factor for uncontrolled OC emissions, which is 16.4 pounds per batch.

The annual emissions is determined by daily emissions multiplied by number of days operated per year.

F. **Miscellaneous Requirements**

1. The following terms and contitions shall supersede all the air pollution control requirements for this emissions unit contained in permit to install 02-9962, as issued on April 24, 1996: A, B, C, D and E.