



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL  
HAMILTON COUNTY**

**CERTIFIED MAIL**

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049

**Application No: 14-05420**

**DATE: 6/12/2003**

Mechanical Finishing, Inc.  
Jerry Stenger  
6350 Este Ave  
Cincinnati, OH 45232

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
309 South Fourth Street, Room 222  
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern, Supervisor  
Field Operations and Permit Section  
Division of Air Pollution Control

cc: USEPA

HCDES



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**Permit To Install  
Terms and Conditions**

**Issue Date: 6/12/2003  
Effective Date: 6/12/2003**

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**FINAL PERMIT TO INSTALL 14-05420**

Application Number: 14-05420  
APS Premise Number: 1431074143  
Permit Fee: **\$200**  
Name of Facility: Mechanical Finishing, Inc.  
Person to Contact: Jerry Stenger  
Address: 6350 Este Ave  
Cincinnati, OH 45232

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**6350 Este Ave  
Cincinnati, Ohio**

Description of proposed emissions unit(s):  
**Vapor Degreaser.**

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

**Part I - GENERAL TERMS AND CONDITIONS****A. Permit to Install General Terms and Conditions****1. Compliance Requirements**

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

**2. Reporting Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

**3. Records Retention Requirements**

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 for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

**4. Inspections and Information Requests**

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized

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representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**5. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

**6. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**7. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

**8. Termination of Permit to Install**

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

**9. Construction of New Sources(s)**

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio

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Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

**10. Public Disclosure**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

**11. Applicability**

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

**12. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

**13. Source Operation and Operating Permit Requirements After Completion of Construction**

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

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**14. Construction Compliance Certification**

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

**15. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

**B. Permit to Install Summary of Allowable Emissions**

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)  
 TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
OC	2.12

## PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

### A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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>
L001 - Vapor Degreaser	OAC rule 3745-31-05(A)(3)	355 lbs OC/month, 2.12 TPY OC  See term B.2.  The requirements of this rule also include compliance with the requirements of 40 CFR Part 63 Subpart T.
	OAC rule 3745-21-09(O)	Exempt
	40 CFR Part 63, Subpart T	See A.2.b-A.2.d and B.1.

### 2. Additional Terms and Conditions

- 2.a Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with 40 CFR Part 63, Subpart T and the solvent usage limitation.
- 2.b The permittee shall ensure that the chilled air blanket temperature (in degrees F), measured at the center of the air blanket, is not greater than 30 percent of the solvent's boiling point.
- 2.c The permittee shall maintain a freeboard with a freeboard ratio equal to 1.0 or greater.
- 2.d The permittee shall ensure that the solvent cleaning machine conforms to the following design requirements:

- i. The solvent cleaning machine shall be designed or operated to meet the following control equipment or technique requirements:
  - (a) 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 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 incorporating the following control equipment or techniques:
    - i. 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 field Office or local air agency).

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- 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 field 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 field 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.
2. The maximum annual solvent usage for this emissions unit shall not exceed 161 gallons per month and 1932 gallons per year.

### **C. Monitoring and/or Recordkeeping 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 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.
3. 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.
4. 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 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.
  - c. Estimates of annual trichloroethylene consumption for the solvent cleaning machine.
5. The permittee shall maintain the following records each month for this emissions unit:

- a. The name and company identification of the solvent;
- b. The OC content of the solvent, in pounds per gallon;
- c. The amount of solvent added into the degreaser, in gallons;
- d. The amount of solvent removed from the degreaser, in gallons;
- e. The percentage solvent content, by volume of the solvent removed from the degreaser;
- f. The amount of solvent evaporated from the degreaser  $[c - (d \times e/100)]$ , in gallons;
- g. The OC emissions from the degreaser, in pounds (f multiplied by b);

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

1. The permittee shall submit an initial notification report as soon as practicable before the construction or reconstruction is planned to commence. This report shall include all of the information required in 40 CFR 63.5 (d) (1) of subpart A, with the following revisions and additions:
  - a. The report shall include a brief description of the solvent cleaning machine type (batch vapor, batch cold, vapor in-line, or cold in-line), solvent/air interface area, and existing controls.
  - b. The report shall include the anticipated compliance approach for the solvent cleaning machine.
  - c. The report shall include an estimate of the annual methylene chloride consumption for the solvent cleaning machine in lieu of the requirements of 40 CFR 63.5 (d) (1) (ii) (H), subpart A.
2. The permittee shall submit an initial statement of compliance no later than 150 days after startup. 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 solvent 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.
3. 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.
4. The permittee shall submit an exceedance report on a semiannual basis. 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, 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 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 (3) the Director (appropriate District Office or local air agency) 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 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, a statement to that effect shall be submitted.
  5. The permittee shall notify the Hamilton County Department of Environmental Services of any exceedances of the monthly solvent usage limit in term B.2. The notification shall be sent to the Hamilton County Department of Environmental Services within 30 days after the exceedance occurs.

#### **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:

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- a. Determine the potential to emit for each individual solvent cleaning machine using the following equation:

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

Where:

PTE<sub>i</sub> = the potential to emit for the solvent cleaning machine i (kilograms solvent per year).

H<sub>i</sub> = hours of operation for solvent cleaning machine i (hours per year).  
 = 8760 hours per year, unless otherwise restricted by a federally enforceable requirement.

W<sub>i</sub> = 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<sub>i</sub> = 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 PTE<sub>i</sub> for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.
2. Compliance with the usage limit in term B.2 will be demonstrated by the record keeping in term C.5.

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**Mech:**

**PTI A**

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**F. Miscellaneous Requirements**

None