State of Ohio Environmental Protection Agency

RE: FINAL PERMIT TO INSTALL **CERTIFIED MAIL**
CUYAHOGA COUNTY

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: 13-04554
Fac ID: 1318258442
DATE: 3/14/2006

Norman Noble, Inc - Micromaching Div
Julie Lowry
5507 Avion Park Drive
Highland Heights, OH 44143

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
Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: **USEPA** **CLAA**

OhioEPA

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install	**Issue Date: 3/14/2006**
Terms and Conditions	**Effective Date: 3/14/2006**

FINAL PERMIT TO INSTALL 13-04554

Application Number:	13-04554
Facility ID:	1318258442
Permit Fee:	**$600**
Name of Facility:	Norman Noble, Inc - Micromaching Div
Person to Contact:	Julie Lowry
Address:	5507 Avion Park Drive Highland Heights, OH 44143

Location of proposed air contaminant source(s) [emissions unit(s)]:
5507 Avion Park Drive
Highland Heights, **Ohio**

Description of proposed emissions unit(s):
Four metal cleaning emissions units -- L001-L004.

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 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 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.

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

Pollutant	Tons Per Year
VOC	0.9

Emissions Unit ID: **L001**

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
L001 - A Branson BTC200 sonic vapor degreaser using trichloroethylene.	OAC rule 3745-31-05 (A)(3)	VOC (trichloroethylene) emissions shall not exceed 0.26 tpy. See sections A.2.a and B.1 below. The requirements of this rule also include compliance with the requirements of 40 CFR Part 63, Subpart T.
	OAC rule 3745-21-09(O)(6)	See section A.2.b below.
	40 CFR Part 63, Subpart T	See section A.2.c through A.2.e below.

2. Additional Terms and Conditions

2.a The open top vapor degreaser shall employ cover and safety switches as described below:

i. A cover that can be opened and closed easily without disturbing the vapor zone.

ii. A condenser flow switch and thermostat or any other device which shuts off the sump heat if the condenser coolant is either not circulating or too warm.

iii. A vapor level control thermostat or any other device which shuts off the sump heat when the vapor level rises too high.

2.b After June 15, 1999, paragraphs (O)(2) to (O)(5) of OAC rule 3745-21-09 shall not apply to any solvent metal cleaning operation which is subject to Subpart T of 40 CFR Part 63 provided the requirements of Subpart T are specified in the terms and conditions of a permit to install.

2.c The monthly emissions shall be calculated using the records of all solvent additions, deletions, and recoveries from each month.

2.d The permittee shall maintain a log of solvent additions and deletions for the solvent cleaning machine.

2.e The permittee shall ensure that the monthly emissions of trichloroethylene from the solvent cleaning machine do not exceed the 3-month rolling average limit of 150 kilograms/square meter/month (which is equivalent to 30.72 lbs/square feet/month).

B. Operational Restrictions

1. The open too vapor degreaser shall be operated and maintained in accordance with the following practices to minimize solvent evaporation from the unit:

   a. keep the cover closed at all times except when processing work loads through the degreaser;

   b. minimize solvent carry-out by performing the following:

      i. racking parts so that solvent drains freely and is not trapped;

      ii. tipping out any pools of solvent on the cleaned parts before removal from the vapor zone; and

      iii. allowing parts to dry within the degreaser for at least 15 seconds or until visually dry, whichever is longer;

   c. repair solvent leaks immediately, or shut down the degreaser;

   d. store waste solvent only in covered containers;

   e. use no ventilation fans adjacent to the degreaser opening; and

f. provide a permanent, conspicuous label, summarizing the operating procedures.

2. On the first operating day of every month the permittee shall ensure that the solvent cleaning machine system contains only clean liquid solvent. This includes, but is not limited to, fresh unused solvent, recycled solvent, and 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 and/or the overall cleaning system's control efficiency. The solvent cleaning machine does not have to be emptied and filled with fresh unused solvent prior to the calculations.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain the following records either in electronic or written form for a period of five years:

   a. the dates and amounts of solvent that are added to the solvent cleaning machine;

   b. the solvent composition of wastes removed from the cleaning machines using the procedures described in the "Testing Requirements" section of this permit; and

   c. calculation sheets showing how the monthly emissions and the rolling 3-month average emissions of trichloroethylene from the solvent cleaning machine were determined, as described in the "Testing Requirements" section of this permit, and the results of all calculations.

D. Reporting Requirements

1. The permittee shall submit an initial statement of compliance to the Cleveland Division of Air Quality (Cleveland DAQ) no later than 150 days following startup of the unit. The statement shall include the following information:

   a. the name and address of the permittee of the solvent cleaning machine;

   b. the address (i.e., physical location) of the solvent cleaning machine;

c. the solvent/air interface area for the solvent cleaning machine; and

d. the results of the first 3-month average of HAP emission calculations.

2. The permittee shall submit an annual solvent emission report to the Cleveland DAQ by February 1 of each year, which shall cover the previous calendar year, and shall contain the following information:

a. the size and type of the solvent cleaning machine, including if it has a solvent/air interface area or is using cleaning capacity;

b. the average monthly solvent consumption for the solvent cleaning machine in kilograms per month; and

c. the 3-month monthly rolling average HAP emission estimates, calculated each month using the method as described in the "Testing Requirements" section of this permit.

E. Testing Requirements

1. Compliance with the emission limitations in the terms and conditions of this permit shall be determined in accordance with the following methods:

a. Emission Limitation

Emissions of trichloroethylene shall not exceed 150 kg/m^2/month as a 3-month rolling average

Applicable Compliance Method

Using the records of all solvent additions and deletions from the previous month, the permittee shall calculate emissions using the following equation:

Ei = (SAi - LSRi - SSRi) / AREAi

where:

Ei = the total halogenated HAP solvent emissions from the solvent cleaning machine during the most recent monthly reporting period i (kilograms of solvent per square meter of solvent/air interface are per month)

SAi = the total amount of halogenated HAP liquid solvent added to the solvent cleaning machine during the most recent monthly reporting period i (kilograms of solvent per month)

LSRi= the total amount of halogenated HAP liquid solvent removed the solvent cleaning machine during the most recent monthly reporting period i (kilograms of solvent per month)

*SSRi = the total amount of halogenated HAP liquid solvent removed from the solvent cleaning machine in solid waste, during the most recent monthly reporting period i (kilograms of solvent per month)

AREAi = the solvent /air interface area of the solvent cleaning machine (square meters)

* The permittee shall determine SSRi from tests conducted using reference method 25d or from engineering calculations included in the compliance report.

The permittee shall determine the monthly rolling average, EA, for the 3-month period ending with the most recent month's reporting period using the following equation:

EAi = (☐Ei)/3, where the summation is from j = 1 to j = 3

where:

EAi = the average halogenated HAP solvent emissions over the preceding 3 monthly reporting periods (kilograms of solvent per square meter of solvent/air interface area per month)

Ei = halogenated HAP solvent emissions for each month (j) for the most recent 3 monthly reporting periods (kilograms of solvent per square meter of solvent/air interface area per month)

j = 1 = the most recent monthly reporting period
j = 2 = the monthly reporting period immediately prior to j = 1
j = 3 = the monthly reporting period immediately prior to j = 2

b. Emission Limitation:

0.26 ton VOC (trichloroethylene) per year.

Applicable Compliance Method:

To determine the annual VOC (trichloroethylene) emission rate, the following equation shall be used:

E = (Ls - Lw) x D / 2000

Where:

E = VOC (trichloroethylene) emission rate in tons per year;

Ls = liquid volume of cleaning solvent employed each year (gallons);

Lw = liquid volume of cleaning solvent sent off-site as waste (gallons); and

D = density of cleaning solvent (pounds/gallon).

3. 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 for each emissions unit 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 X Wi X SAIi

      where:

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

      TPY limit = PTEi X 0.0011023

      Hi = hours of operation for solvent cleaning machine i (hours per year)

      = 8760 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 solvent cleaning machines

SAIi = solvent/air interface area of solvent cleaning machine i (square meters).

F. Miscellaneous Requirements

None.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
L002 - Greco Ultrasonic vapor degreaser using trichloroethylene.	OAC rule 3745-31-05	VOC (trichloroethylene) emissions shall not exceed 0.64 tpy. See sections A.2.a and B.1 below. The requirements of this rule also include compliance with the requirements of 40 CFR Part 63, Subpart T.
	OAC rule 3745-21-09(O)(6)	See section A.2.b below.
	40 CFR Part 63, Subpart T	See sections A.2.c through A.2.e below.

2. Additional Terms and Conditions

2.a The open top vapor degreaser shall employ a cover and safety switches as described below:

i. a cover that can be opened and closed easily without disturbing the vapor zone;

ii. a condenser flow switch and thermostat or any other device which shuts off the sump heat if the condenser coolant is either not circulating or too warm; and

iii. a vapor level control thermostat or any other device which shuts off the sump heat when the vapor level rises too high.

2.b After June 15, 1999, paragraphs (O)(2) to (O)(5) of OAC rule 3745-21-09 shall not apply to any solvent metal cleaning operation which is subject to Subpart T of 40 CFR Part 63 provided the requirements of Subpart T are specified in the terms and conditions of a permit to install.

2.c The monthly emissions shall be calculated using the records of all solvent additions, deletions, and recoveries from each month.

2.d The permittee shall maintain a log of solvent additions and deletions for the solvent cleaning machine.

2.e The permittee shall ensure that the monthly emissions of trichloroethylene from the solvent cleaning machine do not exceed the 3-month rolling average limit of 150 kilograms/square meter/month (which is equivalent to 30.72 lbs/square feet/month).

B. Operational Restrictions

1. The open too vapor degreaser shall be operated and maintained in accordance with the following practices to minimize solvent evaporation from the unit:

   a. keep the cover closed at all times except when processing work loads through the degreaser;

   b. minimize solvent carry-out by performing the following:

      i. racking parts so that solvent drains freely and is not trapped;

      ii. tipping out any pools of solvent on the cleaned parts before removal from the vapor zone; and

      iii. allowing parts to dry within the degreaser for at least 15 seconds or until visually dry, whichever is longer;

   c. repair solvent leaks immediately, or shut down the degreaser;

d. store waste solvent only in covered containers;

e. use no ventilation fans adjacent to the degreaser opening; and

f. provide a permanent, conspicuous label, summarizing the operating procedures.

2. On the first operating day of every month the permittee shall ensure that the solvent cleaning machine system contains only clean liquid solvent. This includes, but is not limited to, fresh unused solvent, recycled solvent, and 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 and/or the overall cleaning system's control efficiency. The solvent cleaning machine does not have to be emptied and filled with fresh unused solvent prior to the calculations.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain the following records either in electronic or written form for a period of five years:

a. the dates and amounts of solvent that are added to the solvent cleaning machine;

b. the solvent composition of wastes removed from the cleaning machines using the procedures described in the "Testing Requirements" section of this permit; and

c. calculation sheets showing how the monthly emissions and the rolling 3-month average emissions of trichloroethylene from the solvent cleaning machine were determined, as described in the "Testing Requirements" section of this permit, and the results of all calculations.

D. Reporting Requirements

1. The permittee shall submit an initial statement of compliance to the Cleveland Division of Air Quality (Cleveland DAQ) no later than 150 days following startup of the unit. The statement shall include the following information:

a. the name and address of the permittee of the solvent cleaning machine;

b. the address (i.e., physical location) of the solvent cleaning machine;

c. the solvent/air interface area for the solvent cleaning machine; and

d. the results of the first 3-month average of HAP emission calculations.

2. The permittee shall submit an annual solvent emission report to the Cleveland DAQ by February 1 of each year, which shall cover the previous calendar year, and shall contain the following information:

a. the size and type of the solvent cleaning machine, including if it has a solvent/air interface area or is using cleaning capacity;

b. the average monthly solvent consumption for the solvent cleaning machine in kilograms per month; and

c. the 3-month monthly rolling average HAP emission estimates, calculated each month using the method as described in the "Testing Requirements" section of this permit.

E. Testing Requirements

1. Compliance with the emission limitations in the terms and conditions of this permit shall be determined in accordance with the following methods:

a. Emission Limitation

Emissions of trichloroethylene shall not exceed 150 kg/m^2/month as a 3-month rolling average

Applicable Compliance Method

Using the records of all solvent additions and deletions from the previous month, the permittee shall calculate emissions using the following equation:

Ei = (SAi - LSRi - SSRi) / AREAi

where:

Ei = the total halogenated HAP solvent emissions from the solvent cleaning

machine during the most recent monthly reporting period i (kilograms of solvent per square meter of solvent/air interface are per month)

SAi = the total amount of halogenated HAP liquid solvent added to the solvent cleaning machine during the most recent monthly reporting period i (kilograms of solvent per month)

LSRi= the total amount of halogenated HAP liquid solvent removed the solvent cleaning machine during the most recent monthly reporting period i (kilograms of solvent per month)

*SSRi = the total amount of halogenated HAP liquid solvent removed from the solvent cleaning machine in solid waste, during the most recent monthly reporting period i (kilograms of solvent per month)

AREAi = the solvent /air interface area of the solvent cleaning machine (square meters)

* The permittee shall determine SSRi from tests conducted using reference method 25d or from engineering calculations included in the compliance report.

The permittee shall determine the monthly rolling average, EA, for the 3-month period ending with the most recent month's reporting period using the following equation:

EAi = (☐Ei)/3, where the summation is from j = 1 to j = 3

where:

EAi = the average halogenated HAP solvent emissions over the preceding 3 monthly reporting periods (kilograms of solvent per square meter of solvent/air interface area per month)

Ei = halogenated HAP solvent emissions for each month (j) for the most recent 3 monthly reporting periods (kilograms of solvent per square meter of solvent/air interface area per month)

j = 1 = the most recent monthly reporting period
j = 2 = the monthly reporting period immediately prior to j = 1

j = 3 = the monthly reporting period immediately prior to j = 2

b. Emission Limitation:

0.64 ton VOC (trichloroethylene) per year.

Applicable Compliance Method:

To determine the annual VOC (trichloroethylene) emission rate, the following equation shall be used:

E = (Ls - Lw) x D / 2000

Where:

E = VOC (trichloroethylene) emission rate in tons per year;

Ls = liquid volume of cleaning solvent employed each year (gallons);

Lw = liquid volume of cleaning solvent sent off-site as waste (gallons); and

D = density of cleaning solvent (pounds/gallon).

3. 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 for each emissions unit 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 X Wi X SAIi

where:

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

TPY limit = PTEi X 0.0011023

Hi = hours of operation for solvent cleaning machine i (hours per year)

= 8760 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 solvent cleaning machines

SAIi = solvent/air interface area of solvent cleaning machine i (square meters).

F. Miscellaneous Requirements

None.