

**Permit To Install Synthetic Minor Write-Up**  
**McCauley Propeller Systems**  
**PTI No. 08-04096**

**Introduction:**

McCauley Corporation is requesting a synthetic minor permit to limit HAP emissions below major threshold limits (25 TPY total HAPs and 10 TPY for individual HAPs). Potential emissions of HAPs are equal to 21.40 TPY total HAPs, 11.10 TPY individual HAPs, actual emissions equal 16.49 TPY total HAPs, 7.4 TPY individual HAP, and permit allowable is limited to 10 TPY for individual HAP and 25 TPY for total HAPs. The potential emissions are based on 8760 hr/yr. The actual emissions are based on permittee's requested hours of operation.

**Source Description:**

The emissions units include 2 paint booths (paints HAPs), 4 stoddard solvent cleaning tanks, 3 cold cleaners (solvents contain HAPs), soluble cutting oil, miscellaneous solvent use (contains HAPs), chromium anodizing (HAPs), and cadmium plating (HAPs), and methylene chloride vapor degreaser (HAP). The total HAPs emissions have been calculated as 16.49 ton/year. To allow for growth, the permit restricts emissions to 25 tons/yr or, more specifically 2.075 tons/month. The permit to install is written to limit the HAPs on a monthly basis in lieu of a rolling 12 month summation. This method of limiting the HAPs emissions is a bit more stringent but will make the record keeping easier. The individual HAP emitted at the highest level is methylene chloride (7.4 ton/yr). Again, to allow growth, the permit restricts emissions to 10 ton/yr or 0.825 ton/month for each individual HAP. Total OC will be restricted to 29.85 tons/year. The cadmium and chromium anodizing tanks also emit particulates in very small quantities. The chromium anodizing tank is subject to the NESHAP rules (subpart N). The methylene chloride vapor degreaser is subject to the NESHAP rules (subpart T).

**HAPs Facility Emissions:**

K001 and K002 (paint booths) HAPS: Toluene 0.83 lb/day, 0.94 TPY (Potential = 1.41 TPY)  
Xylene: 1.26 lb/day, 0.23 TPY (Potential = 0.35 TPY)  
Methyl Isobutyle Ketone: 1.94 lb/day, 0.34 TPY (Potential = 0.51 TPY)  
Methyl Ethyl Ketone: 12.63 lb/day, 2.3 TPY (Potential = 3.45 TPY)

L003, L004, L005, L006 (Stoddard Cleaners): No HAPs

L007, L008, L009(Cold Cleaners): Each emissions unit emits the following:

Toluene: 0.26 TPY (Potential =0.39 TPY)  
Xylene: 0.20 TPY (Potential =0.30 TPY)  
Hexane: 0.20 TPY (Potential = 0.30 TPY)

L010 (methylene chloride degreaser) :7.4 TPY, 0.62 ton/month (Potential = 11.10 TPY)

P003 (booting operation): MEK: 0.03 TPY (Potential =0.045 TPY)

N-Hexane: 0.013 TPY (Potential = 0.0195 TPY)

Toluene: 0.013 TPY (Potential = 0.0195 TPY)

P005 Misc. Solvent Use: Hexane: 0.29 TPY (Potential = 0.435 TPY)

Toluene: 0.44 TPY (Potential = 0.66 TPY)

Xylene: 0.29 TPY (Potential = 0.435 TPY)

P001: Chromium anodizing:  $4.5 \times 10^{-5}$  TPY (Potential = 0.000067 TPY)



State of Ohio Environmental Protection Agency

Street Address:

Mailing Address:

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

Lazarus Gov.  
Center

**RE: DRAFT PERMIT TO INSTALL  
MONTGOMERY COUNTY  
Application No: 08-04096**

**CERTIFIED MAIL**

**DATE:** 11/16/2000

McCauley Propeller Systems  
David Glassner  
3535 McCauley Drive  
Vandalia, OH 45377-5053

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$4100** will be due. Please do not submit any payment now.

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. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Very truly yours,

Thomas G. Rigo, Manager  
Field Operations and Permit Section  
Division of Air Pollution Control

CC: USEPA  
IN

RAPCA  
Miami Valley Reg Plan Com

KY



**Permit To Install  
Terms and Conditions**

**Issue Date: To be entered upon final issuance  
Effective Date: To be entered upon final issuance**

**DRAFT PERMIT TO INSTALL 08-04096**

Application Number: 08-04096  
APS Premise Number: 0857171342  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: McCauley Propeller Systems  
Person to Contact: David Glassner  
Address: 3535 McCauley Drive  
Vandalia, OH 45377-5053

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**3535 McCauley Drive  
Vandalia, Ohio**

Description of proposed emissions unit(s):  
**Cold Solvent Tanks, Methylene Chloride Degreaser, Soluble Cutting Oil Use, Rust Preventative Use, Booting Operations, Coating Operations, Miscellaneous Solvent Use, Chrome Plating, Anodizing.**

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

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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 Related to Monitoring and Recordkeeping 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 are inadequate 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 prove to be inadequate 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 application must be made to the Director for the installation or modification of any other emissions unit(s).

**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 thirty (30) 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**

<u>Pollutant</u>	<u>Tons Per Year</u>
OC	29.85 TPY
Particulates	4.82 TPY
Individual HAPs	10.0 TPY
Total HAPs	25.0 TPY

**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>
K001 - Paint Department Booth No 1	OAC rule 3745-31-05(A)(3)	Less than or equal to 8 gallons/day coating usage
		49.97 lbs/day organic compound (OC) emissions, excluding clean-up; 9.13 TPY OC, including cleanup
		Combined OC emissions for K001 and K002 not to exceed limitations specified above, see 2.a and 2.b
		See 2.c
	OAC rule 3745-35-07 (B) Synthetic Minor Restriction	See 2.d
	OAC rule 3745-21-09(U)(2)(b)	

**2. Additional Terms and Conditions**

- 2.a The combined coating usage for emission units K001 and K002 shall not exceed 8 gallons/day.
- 2.b The combined organic emissions, including clean-up and HAPs, from emission units K001 and K002 shall not exceed 49.97 lbs/day, 9.13 TPY.

**McCauley Propeller Systems**

**PTI Application: 08-04096**

**Issued: To be entered upon final issuance**

**Facility ID: 0857171342**

**Emissions Unit: K001**

- 2.c** The usage\* of Hazardous Air Pollutants (HAPS), as identified in Section 112(b) of Title III of the Clean Air Act, from this facility i.e., K001, K002, L007, L008, L009, L010, P002, P003, and P005, shall not exceed 0.825 ton/month (1650 lbs/month) for any individual HAP and 2.075 tons/month (4150 lbs/month) for any combination of HAPS.

\*This assumes the HAPs emitted are the same as the amount of HAPs used since all HAPs used evaporate.

- 2.d** The application of an exterior coating to airplanes is not subject to the requirements of OAC rule 3745-21-09 (U)(1)

**B. Operational Restrictions**

None

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each day for each coating line, K001 and K002:

- a. The name and identification number of each coating employed.
- b. The volume, in gallons, of each coating employed.
- c. The OC content of each coating, as applied, in pounds per gallon.
- d. The total volume, in gallons, of all of the coatings employed.
- e. The total OC emissions from all coatings employed.

2. The permittee shall collect and record the following information for the purpose of determining annual OC emissions from emissions units K001 and K002:

- a. The name and identification of each cleanup material employed.
- b. The number of gallons of each cleanup material employed.
- c. The OC content of each cleanup material, in pounds per gallon.
- d. The total OC emissions from all coatings and cleanup materials employed, in pounds or

tons.

3. The permittee shall collect and record the following information each month for the purpose of determining emissions of individual and combined HAPs from emissions units K001 and K002:
  - a. The name and identification number of each coating, as applied.
  - b. The individual Hazardous Air Pollutant\* (HAP) content for each HAP of each coating in pounds of individual HAP per gallon of coating, as applied.
  - c. The total combined Hazardous Air Pollutant (HAP) content for each HAP of each coating in pounds of combined HAPs per gallon of coating, as applied (sum all the individual HAP contents from b).
  - d. The number of gallons of each coating employed.
  - e. The name and identification of each cleanup material employed.
  - f. The individual HAP content for each HAP of each cleanup material in pounds of individual HAP per gallon of cleanup material, as applied.
  - g. The total combined HAP content of each cleanup material in pounds of combined HAPs per gallon of cleanup material, as applied (sum all the individual HAP contents from f).
  - h. The number of gallons of each cleanup material employed.
  - i. The total individual HAP emissions for each HAP from all coatings and cleanup materials employed, in pounds or tons per month (for each HAP the sum of (b) times (d) for each coating and (f) times (h) for each cleanup material).
  - j. The total combined Hazardous Air Pollutant (HAP) emissions from all coatings and cleanup materials employed, in pounds or tons per month (the sum of (c) times (d) for each coating and (g) times (h) for each cleanup material).

\*A listing of the Hazardous Air Pollutants (HAPs) can be found in Section 112 (b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on a line-by-line basis.

4. The permit to install for this emissions unit K001 as evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's

**McCauley Propeller Systems**

**PTI Application: 08-04096**

**Issued: To be entered upon final issuance**

**Facility ID: 0857171342**

**Emissions Unit: K001**

exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: MEK

TLV (ug/m3): 588,950

Maximum Hourly Emission Rate (lbs/hr): 0.79

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,296

MAGLC (ug/m3): 14,020

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the material used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled:
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. Physical changes to the emissions unit or its exhaust parameters (e.g. increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

The permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the

**Emissions Unit: K001**

Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy."

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy", and
- c. Where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. In accordance with paragraph A.2.b. of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports to the Director (the appropriate Ohio EPA District Office or local air agency) which includes the following information for this emissions unit:
  - a. An identification of each day the coating usage exceeded 8 gallons for K001 or K002 or exceeded 8 gallons combined and the actual coating usage for each such day.
  - b. An identification of each day during which the OC emissions exceeded 49.97 pounds for K001 and K002, combined and the actual emissions rate for each such day.
  - c. An identification of each day during which the emissions of an individual HAP from the facility exceeded 1650 lbs and the actual monthly emissions of the individual HAP for each such month.
  - d. An identification of each month during which the emissions of combined HAPs from the facility exceeded 4150 lbs and the actual monthly emissions of combined HAPs for each such month.

These reports shall include a description of the deviation, as well as the corrective actions that were taken to achieve compliance.

2. The permittee shall submit annual reports to the Director (appropriate District Office or local air agency) which specify, the following information:
  - a. The total number of gallons of coating material employed in emissions units K001 and K002 combined.
  - b. The total OC emissions from emissions units K001 and K002 combined.
  - c. The total individual HAP emissions from the facility.
  - d. The total combined HAP emissions from the facility.

These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

3. The permittee shall submit annual reports to the Director (appropriate District Office or local air

**McCauley Propeller Systems**  
**PTI Application: 08-04096**  
**Issued: To be entered upon final issuance**

**Facility ID: 0857171342**

**Emissions Unit: K001**

agency) which specify the total and individual HAPs emissions on a facility-wide basis.  
These reports shall be submitted by January 31 of each calendar year.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation-  
Coating usage shall not exceed 8.0 gallons/day for K001  
  
Applicable Compliance Method-  
Compliance shall be based upon the record keeping specified in C.1.
  - b. Emission Limitation-  
Coating usage shall not exceed 8.0 gallon/day for K001 and K002, combined  
  
Applicable Compliance Method-  
Compliance shall be based upon the record keeping specified in C.1.
  - c. Emission Limitation-  
49.97 lbs/day organic emission for K001  
  
Applicable Compliance Method-  
Compliance shall be based upon the record keeping specified C.1.
  - d. Emission Limitation-  
49.97 lbs/day organic emission for K001 and K002, combined  
  
Applicable Compliance Method-  
Compliance shall be based upon the record keeping specified C.1.
  - e. Emission Limitation-  
9.13 TPY organic emission for K001 and K002  
  
Applicable Compliance Method-  
Compliance shall be based upon the record keeping specified in C.2 and shall be the sum of the OC emission rates for the calendar year.
  - f. Emission Limitation-  
Individual HAPs emissions shall not exceed 0.825 tons/month (1650 lbs/month) from entire facility.

**McCauley Propeller Systems**  
**PTI Application: 08-04096**  
**Issued: To be entered upon final issuance**

**Facility ID: 0857171342**  
**Emissions Unit: K001**

**Applicable Compliance Method-**

Compliance shall be based upon the record keeping requirements as specified in section C.3. of the terms and conditions of this PTI and shall be the sum of the monthly individual HAPs emissions for the entire facility which presently includes emission units: K001, Paint Booth No. 1; K002, Paint Booth No. 2; P001, Aluminum anodizing; P002, Cadmium Plating; P003, Booting Operation; P005, Miscellaneous cleaning of Parts and Guns; L007, #1 engineering Thinner Tank; L008, #2 Subassembly Thinner Tank; L009, #3 Repair Department Thinner Tank and; L010, Open Top Methylene chloride Vapor Degreaser.

**g. Emission Limitation-**

Total HAPs emissions shall not exceed 2.075tons/month (4150 lbs/month) from all emission units.

**Applicable Compliance Method-**

Compliance shall be based upon the record keeping requirements as specified in section C.2. of the terms and conditions of this PTI and shall be the sum of the monthly HAPs emissions for the entire facility which presently includes emission units: K001, Paint Booth No. 1; K002, Paint Booth No. 2; P001, Aluminum anodizing; P002, Cadmium Plating; P003, Booting Operation; P005, Miscellaneous cleaning of Parts and Guns; L007, #1 engineering Thinner Tank; L008, #2 Subassembly Thinner Tank; L009, #3 Repair Department Thinner Tank and; L010, Open Top Methylene chloride Vapor Degreaser.

**F. Miscellaneous Requirements**

1. The terms and conditions in sections A, B, C, D and E of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.

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PTI

Emissions Unit ID: **K002**

Issued: To be entered upon final issuance

**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>
K002 - Paint Department Booth No 2	OAC rule 3745-31-05(A)(3)	Less than or equal to 8 gallons/day coating usage  49.97 lbs/day organic compound (OC) emissions, excluding clean-up; 9.13 TPY OC, including cleanup  Combined OC emissions for K001 and K002 not to exceed limitations specified above, see 2.a and 2.b
	OAC rule 3745-35-07 (B) Synthetic Minor Restriction	See 2.c
	OAC rule 3745-21-09(U)(2)(b)	See 2.d

**2. Additional Terms and Conditions**

- 2.a The combined coating usage for emission units K001 and K002 shall not exceed 8 gallons/day.
- 2.b The combined organic emissions, including clean-up and HAPs, from emission units K001 and K002 shall not exceed 49.97 lbs/day, 9.13 TPY.

- 2.c** The usage\* of Hazardous Air Pollutants (HAPS), as identified in Section 112(b) of Title III of the Clean Air Act, from this facility i.e., K001, K002, L007, L008, L009, L010, P002, P003, and P005, shall not exceed 0.825 ton/month (1650 lbs/month) for any individual HAP and 2.075 tons/month (4150 lbs/month) for any combination of HAPs.

\*This assumes the HAPs emitted are the same as the amount of HAPs used since all HAPs used evaporate.

- 2.d** The application of an exterior coating to airplanes is not subject to the requirements of OAC rule 3745-21-09 (U)(1)

**B. Operational Restrictions**

None

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each day for each coating line, K001 and K002:
  - a. The name and identification number of each coating employed.
  - b. The volume, in gallons, of each coating employed.
  - c. The OC content of each coating, as applied, in pounds per gallon.
  - d. The total volume, in gallons, of all of the coatings employed.
  - e. The total OC emissions from all coatings employed.
2. The permittee shall collect and record the following information for the purpose of determining annual OC emissions from emissions units K001 and K002:
  - a. The name and identification of each cleanup material employed.
  - b. The number of gallons of each cleanup material employed.
  - c. The OC content of each cleanup material, in pounds per gallon.
  - d. The total OC emissions from all coatings and cleanup materials employed, in pounds or tons.

McC

PTI /

Emissions Unit ID: **K002**

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3. The permittee shall collect and record the following information each month for the purpose of determining emissions of individual and combined HAPs from emissions units K001 and K002:
  - a. The name and identification number of each coating, as applied.
  - b. The individual Hazardous Air Pollutant\* (HAP) content for each HAP of each coating in pounds of individual HAP per gallon of coating, as applied.
  - c. The total combined Hazardous Air Pollutant (HAP) content for each HAP of each coating in pounds of combined HAPs per gallon of coating, as applied (sum all the individual HAP contents from b).
  - d. The number of gallons of each coating employed.
  - e. The name and identification of each cleanup material employed.
  - f. The individual HAP content for each HAP of each cleanup material in pounds of individual HAP per gallon of cleanup material, as applied.
  - g. The total combined HAP content of each cleanup material in pounds of combined HAPs per gallon of cleanup material, as applied (sum all the individual HAP contents from f).
  - h. The number of gallons of each cleanup material employed.
  - i. The total individual HAP emissions for each HAP from all coatings and cleanup materials employed, in pounds or tons per month (for each HAP the sum of (b) times (d) for each coating and (f) times (h) for each cleanup material).
  - j. The total combined Hazardous Air Pollutant (HAP) emissions from all coatings and cleanup materials employed, in pounds or tons per month (the sum of (c) times (d) for each coating and (g) times (h) for each cleanup material).

\*A listing of the Hazardous Air Pollutants (HAPs) can be found in Section 112 (b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on a line-by-line basis.

4. The permit to install for this emissions unit K001 as evaluated based on the actual materials

McC

PTI

Emissions Unit ID: **K002**

**Issued: To be entered upon final issuance**

(typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: MEK

TLV (ug/m3): 588,950

Maximum Hourly Emission Rate (lbs/hr): 0.79

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,296

MAGLC (ug/m3): 14,020

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the material used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. Physical changes to the emissions unit or its exhaust parameters (e.g. increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

Issue

Emissions Unit ID: **K002**

The permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy."

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy", and
- c. Where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

McC

PTI /

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Emissions Unit ID: **K002**

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

1. In accordance with paragraph A.2.b. of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports to the Director (the appropriate Ohio EPA District Office or local air agency) which includes the following information for this emissions unit:
  - a. An identification of each day the coating usage exceeded 8 gallons for K001 or K002 or exceeded 8 gallons combined and the actual coating usage for each such day.
  - b. An identification of each day during which the OC emissions exceeded 49.97 pounds for K001 and K002, combined and the actual OC emissions rate for each such day.
  - c. An identification of each day during which the emissions of an individual HAP from the facility exceeded 1650 lbs and the actual monthly emissions of the individual HAP for each such month.
  - d. An identification of each month during which the emissions of combined HAPs from the facility exceeded 4150 lbs and the actual monthly emissions or combined HAPs for each such month.

These reports shall include a description of the deviation, as well as the corrective actions that were taken to achieve compliance.

2. The permittee shall submit annual reports to the Director (appropriate District Office or local air agency) which specify, the following information:
  - a. The total number of gallons of coating material employed in emissions units K001 and K002 combined.
  - b. The total OC emissions from emissions units K001 and K002 combined.
  - c. The total individual HAP emissions from the facility.
  - d. The total combined HAP emissions from the facility.

These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

3. The permittee shall submit annual reports to the Director (appropriate District Office or local air



McC

PTI

Issued: To be entered upon final issuance

Emissions Unit ID: **K002**

## E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation-  
Coating usage shall not exceed 8.0 gallons/day for K001  
  
Applicable Compliance Method-  
Compliance shall be based upon the record keeping specified in C.1.
  - b. Emission Limitation-  
Coating usage shall not exceed 8.0 gallon/day for K001 and K002, combined  
  
Applicable Compliance Method-  
Compliance shall be based upon the record keeping specified in C.1.
  - c. Emission Limitation-  
49.97 lbs/day organic emission for K001  
  
Applicable Compliance Method-  
Compliance shall be based upon the record keeping specified C.1.
  - d. Emission Limitation-  
49.97 lbs/day organic emission for K001 and K002, combined  
  
Applicable Compliance Method-  
Compliance shall be based upon the record keeping specified C.1.
  - e. Emission Limitation-  
8.9 TPY organic emission for K001 and K002  
  
Applicable Compliance Method-  
Compliance shall be based upon the record keeping specified in C.2 and shall be the sum of the OC emission rates for the calendar year.
  - f. Emission Limitation-  
Individual HAPs emissions shall not exceed 0.825 tons/month (1650 lbs/month) from entire facility.

McC

PTI /

Emissions Unit ID: **K002**

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Applicable Compliance Method-

Compliance shall be based upon the record keeping requirements as specified in section C.3. of the terms and conditions of this PTI and shall be the sum of the monthly individual HAPs emissions for the entire facility which presently includes emission units: K001, Paint Booth No. 1; K002, Paint Booth No. 2; P001, Aluminum anodizing; P002, Cadmium Plating; P003, Booting Operation; P005, Miscellaneous cleaning of Parts and Guns; L007, #1 engineering Thinner Tank; L008, #2 Subassembly Thinner Tank; L009, #3 Repair Department Thinner Tank and; L010, Open Top Methylene chloride Vapor Degreaser.

g. Emission Limitation-

Total HAPs emissions shall not exceed 2.075tons/month (4150 lbs/month) from all emission units.

Applicable Compliance Method-

Compliance shall be based upon the record keeping requirements as specified in section C.3. of the terms and conditions of this PTI and shall be the sum of the monthly HAPs emissions for the entire facility which presently includes emission units: K001, Paint Booth No. 1; K002, Paint Booth No. 2; P001, Aluminum anodizing; P002, Cadmium Plating; P003, Booting Operation; P005, Miscellaneous cleaning of Parts and Guns; L007, #1 engineering Thinner Tank; L008, #2 Subassembly Thinner Tank; L009, #3 Repair Department Thinner Tank and; L010, Open Top Methylene chloride Vapor Degreaser.

## **F. Miscellaneous Requirements**

1. The terms and conditions in sections A, B, C, D and E of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.

McC

PTI

Emissions Unit ID: L003

Issued: To be entered upon final issuance

**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>
L003 - No 1 Engineering Test Stoddard Solvent Tank	OAC rule 3745-31-05(A)(3)	0.07 ton/month and .84 ton/year volatile organic compounds (VOC)  See A.2.a and A.2.b
	OAC rule 3745-21-09(O)(2)	See B.1 and B.2.

**2. Additional Terms and Conditions**

- 2.a The use of cleaning solvent in this emissions unit shall not exceed 21.92 gallons/month and 263 gallons/year.
- 2.b Only Stoddard solvent or an equivalent non-HAPs\* solvent may be employed in this emissions unit.

\*Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act

**B. Operational Restrictions**

1. The permittee shall meet all of the following work and operational practices:

- a. Equip the cold cleaner with a cover; and if the solvent has a vapor pressure greater than 0.3 pounds per square inch absolute measured at 100 degrees Fahrenheit, or the solvent is heated or agitated, the cover shall be designed and constructed so that it can be easily operated with one hand.
  - b. Equip the cold cleaner with a device for draining the cleaned parts; and if the solvent has a vapor pressure greater than 0.6 pounds per square inch absolute, measured at 100 degrees Fahrenheit, the drainage facility shall be constructed internally so that parts are enclosed under the cover during draining unless an internal type drainage device cannot fit into the cleaning system.
  - c. Install and operate a freeboard that gives a freeboard ratio greater than or equal to 0.7 if the solvent vapor pressure is greater than 0.6 pounds per square inch absolute measured at 100 degrees Fahrenheit, or if the solvent is heated above 120 degrees Fahrenheit.
2. The cold cleaner shall be operated and maintained in accordance with the following practices to minimize solvent evaporation from the unit:
- a. Provide a permanent, legible, conspicuous label, summarizing the operating requirements.
  - b. Store waste solvent in covered containers.
  - c. Close the cover whenever parts are not being handled in the cleaner.
  - d. Drain the cleaned parts until dripping ceases.
  - e. If used, supply a solvent spray that is a solid fluid stream (not a fine, atomized, or shower-type spray) at a pressure that does not exceed 10 pounds per square inch gauge.
  - f. Clean only materials that are neither porous nor absorbent.

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month:
  - a. The identification of the degreasing solvent employed.
  - b. The number of gallons of degreasing solvent used.
  - c. The density of the solvent, pounds per gallon.

**McC**

**PTI /**

Emissions Unit ID: **L003**

**Issued: To be entered upon final issuance**

- d. The vapor pressure of each solvent, in pound per square inch absolute, measured at 100 degrees Fahrenheit.
- e. The number of gallons of degreasing solvent disposed of as waste.
- f. The monthly VOC emission rate, see section E.1.a. for calculation method.

McC

PTI

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Emissions Unit ID: L003

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

1. In accordance with paragraph A.2.b. of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports to the Director (the appropriate Ohio EPA District Office or local air agency) which includes the following information for this emissions unit:

- a. An identification of each month the VOC emissions exceeded 0.07 ton.
- b. An identification of each month the use of Stoddard solvent exceeded 21.92 gallons.
- c. An identification of each day when a solvent other than Stoddard or equivalent non-HAP solvent was employed in this emissions unit.

These reports shall include a description of the deviation, as well as the corrective actions that were taken to achieve compliance.

2.. The permittee shall submit annual reports to the Director (appropriate District Office or local air agency) which specify, for this emissions unit, the following information for the previous calendar year:

- a. An identification of the solvent employed in this emissions unit.
- b. Total gallons of solvent employed in this emissions unit.
- c. Total annual VOC emissions.

These reports shall be submitted by January 31 of each year.

#### **E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emissions Limitation -  
0.07 ton/month volatile organic compounds



**McC**

**PTI /**

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Emissions Unit ID: **L003**

McC

PTI

Emissions Unit ID: L004

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**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>
L004 - No 2 Maintenance Department Stoddard Solvent Tank	OAC rule 3745-31-05(A)(3)	0.07 ton/month and .84 ton/year volatile organic compounds (VOC)
	OAC rule 3745-35-07(B) Synthetic Minor	See A.2.a and A.2.b
	OAC rule 3745-21-09(O)(2)	See B.1 and B.2.

**2. Additional Terms and Conditions**

- 2.a The use of cleaning solvent in this emissions unit shall not exceed 21.92 gallons/month and 263 gallons/year.
- 2.b Only Stoddard solvent or an equivalent non-HAP\* solvent may be employed in this emissions unit.

\*Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act

**B. Operational Restrictions**

- 1. The permittee shall meet all of the following work and operational practices:

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- a. Equip the cold cleaner with a cover; and if the solvent has a vapor pressure greater than 0.3 pounds per square inch absolute measured at 100 degrees Fahrenheit, or the solvent is heated or agitated, the cover shall be designed and constructed so that it can be easily operated with one hand.
  - b. Equip the cold cleaner with a device for draining the cleaned parts; and if the solvent has a vapor pressure greater than 0.6 pounds per square inch absolute, measured at 100 degrees Fahrenheit, the drainage facility shall be constructed internally so that parts are enclosed under the cover during draining unless an internal type drainage device cannot fit into the cleaning system.
  - c. Install and operate a freeboard that gives a freeboard ratio greater than or equal to 0.7 if the solvent vapor pressure is greater than 0.6 pound per square inch absolute measured at 100 degrees Fahrenheit, or if the solvent is heated above 120 degrees Fahrenheit.
2. The cold cleaner shall be operated and maintained in accordance with the following practices to minimize solvent evaporation from the unit:
- a. Provide a permanent, legible, conspicuous label, summarizing the operating requirements.
  - b. Store waste solvent in covered containers.
  - c. Close the cover whenever parts are not being handled in the cleaner.
  - d. Drain the cleaned parts until dripping ceases.
  - e. If used, supply a solvent spray that is a solid fluid stream (not a fine, atomized, or shower-type spray) at a pressure that does not exceed 10 pounds per square inch gauge.
  - f. Clean only materials that are neither porous nor absorbent.

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month:
  - a. The identification of the degreasing solvent employed.

- b. The number of gallons of degreasing solvent used.
- c. The density of the solvent, pounds per gallon.
- d. The vapor pressure of each solvent, in pound per square inch absolute, measured at 100 degrees Fahrenheit.
- e. The number of gallons of degreasing solvent disposed of as waste.
- f. The monthly VOC emission rate, see section E.1.a. for calculation method.

**D. Reporting Requirements**

- 1. In accordance with paragraph A.2.b. of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports to the Director (the appropriate Ohio EPA District Office or local air agency) which includes the following information for this emissions unit:
  - a. An identification of each month the VOC emissions exceeded 0.07 ton.
  - b. An identification of each month the use of Stoddard solvent exceeded 21.92 gallons.
  - c. An identification of each day when a solvent other than Stoddard or equivalent non-HAP solvent was employed in this emissions unit.

These reports shall include a description of the deviation, as well as the corrective actions that were taken to achieve compliance.

- 2.. The permittee shall submit annual reports to the Director (appropriate District Office or local air agency) which specify, for this emissions unit, the following information for the previous calendar year:
  - a. An identification of the solvent employed in this emissions unit.
  - b. Total gallons of solvent employed in this emissions unit.
  - c. Total annual VOC emissions.

These reports shall be submitted by January 31 of each year.

McC

PTI

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Emissions Unit ID: L004

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emissions Limitation -  
0.07 ton/month volatile organic compounds

Applicable Compliance Method-

To determine the actual volatile organic compound emission rate, the following equation shall be used:

$$E = (L_s - L_w) \times D / 2000$$

E = volatile organic compound emission rate (ton/month)

L<sub>s</sub> = liquid volume of Stoddard solvent or equivalent solvent employed each month (gallons)

L<sub>w</sub> = liquid volume of Stoddard solvent or equivalent solvent sent off-site as waste (gallons)

D = density of Stoddard solvent or equivalent solvent (pounds/gallon)

McC

PTI

Emissions Unit ID: L004

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- b. Emission Limitation-  
0.84 TPY volatile organic compounds

Applicable Compliance Method -  
Compliance shall be the sum of the 12 monthly VOC emission rates for the calendar year.

**F. Miscellaneous Requirements**

1. The terms and conditions in sections A, B, C, D and E of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.
2. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

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PTI

Emissions Unit ID: L005

Issued: To be entered upon final issuance

**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>
L005 - No 3 Repair Department Stoddard Solvent Tank	OAC rule 3745-31-05(A)(3)	0.07 ton/month and .84 ton/year organic compounds (VOC)
	OAC rule 3745-35-07(B) Synthetic Minor	See A.2.a and A.2.b
	OAC rule 3745-21-09(O)(2)	See B.1 and B.2.

**2. Additional Terms and Conditions**

- 2.a The use of cleaning solvent in this emissions unit shall not exceed 21.92 gallons/month and 263 gallons/year.
- 2.b Only Stoddard solvent or an equivalent non-HAP\* solvent may be employed in this emissions unit.

\*Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act

**B. Operational Restrictions**

1. The permittee shall meet all of the following work and operational practices:
  - a. Equip the cold cleaner with a cover; and if the solvent has a vapor pressure greater than 0.3 pound per square inch absolute measured at 100 degrees Fahrenheit, or the solvent is heated or agitated, the cover shall be designed and constructed so that it can be easily operated with one hand.
  - b. Equip the cold cleaner with a device for draining the cleaned parts; and if the solvent has a vapor pressure greater than 0.6 pounds per square inch absolute, measured at 100 degrees Fahrenheit, the drainage facility shall be constructed internally so that parts are enclosed under the cover during draining unless an internal type drainage device cannot fit into the cleaning system.
  - c. Install and operate a freeboard that gives a freeboard ratio greater than or equal to 0.7 if the solvent vapor pressure is greater than 0.6 pound per square inch absolute measured at 100 degrees Fahrenheit, or if the solvent is heated above 120 degrees Fahrenheit.
2. The cold cleaner shall be operated and maintained in accordance with the following practices to minimize solvent evaporation from the unit:
  - a. Provide a permanent, legible, conspicuous label, summarizing the operating requirements.
  - b. Store waste solvent in covered containers.
  - c. Close the cover whenever parts are not being handled in the cleaner.
  - d. Drain the cleaned parts until dripping ceases.
  - e. If used, supply a solvent spray that is a solid fluid stream (not a fine, atomized, or shower-type spray) at a pressure that does not exceed 10 pounds per square inch gauge.
  - f. Clean only materials that are neither porous nor absorbent.

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month:
  - a. The identification of the degreasing solvent employed.

**McC**

**PTI /**

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Emissions Unit ID: **L005**

- b. The number of gallons of degreasing solvent used.
- c. The density of the solvent, pounds per gallon.
- d. The vapor pressure of each solvent, in pound per square inch absolute, measured at 100 degrees Fahrenheit.
- e. The number of gallons of degreasing solvent disposed of as waste.
- f. The monthly VOC emission rate, see section E.1.a. for calculation method.

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PTI

Issued: To be entered upon final issuance

Emissions Unit ID: L005

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

1. In accordance with paragraph A.2.b. of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports to the Director (the appropriate Ohio EPA District Office or local air agency) which includes the following information for this emissions unit:
  - a. An identification of each month the VOC emissions exceeded 0.07 ton.
  - b. An identification of each month the use of Stoddard solvent exceeded 21.92 gallons.
  - c. An identification of each day when a solvent other than Stoddard or equivalent non-HAP solvent was employed in this emissions unit.

These reports shall include a description of the deviation, as well as the corrective actions that were taken to achieve compliance.

- 2.. The permittee shall submit annual reports to the Director (appropriate District Office or local air agency) which specify, for this emissions unit, the following information for the previous calendar year:
  - a. An identification of the solvent employed in this emissions unit.
  - b. Total gallons of solvent employed in this emissions unit.
  - c. Total annual VOC emissions.

These reports shall be submitted by January 31 of each year.

#### **E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emissions Limitation -  
0.07 ton/month volatile organic compounds

Applicable Compliance Method-

To determine the actual volatile organic compound emission rate, the following equation shall be used:

$$E = (L_s - L_w) \times D / 2000$$

E = volatile organic compound emission rate (ton/month)

L<sub>s</sub> = liquid volume of Stoddard solvent or equivalent solvent employed each month (gallons)

L<sub>w</sub> = liquid volume of Stoddard solvent or equivalent solvent sent off-site as waste (gallons)

D = density of Stoddard solvent or equivalent solvent (pounds/gallon)

- b. Emission Limitation-  
0.84 TPY volatile organic compounds

Applicable Compliance Method -

Compliance shall be the sum of the 12 monthly VOC emission rates for the calendar year.

**F. Miscellaneous Requirements**

1. The terms and conditions in sections A, B, C, D and E of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.
2. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

**McC**

**PTI /**

**Issued: To be entered upon final issuance**

Emissions Unit ID: **L005**

Issued: To be entered upon final issuance

**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>
L006 - No 4 Subassembly Stoddard Solvent Tank	OAC rule 3745-31-05(A)(3)	0.07 ton/month and .84 ton/year volatile organic compounds (VOC)
	OAC rule 3745-35-07(B) Synthetic Minor	See A.2.a and A.2.b
	OAC rule 3745-21-09(O)(2)	See B.1 and B.2.

**2. Additional Terms and Conditions**

- 2.a The use of cleaning solvent in this emissions unit shall not exceed 21.92 gallons/month and 263 gallons/year.
- 2.b Only Stoddard solvent or an equivalent non-HAP\* solvent may be employed in this emissions unit.

\*Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act

**B. Operational Restrictions**

1. The permittee shall meet all of the following work and operational practices:

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- a. Equip the cold cleaner with a cover; and if the solvent has a vapor pressure greater than 0.3 pound per square inch absolute measured at 100 degrees Fahrenheit, or the solvent is heated or agitated, the cover shall be designed and constructed so that it can be easily operated with one hand.
  - b. Equip the cold cleaner with a device for draining the cleaned parts; and if the solvent has a vapor pressure greater than 0.6 pound per square inch absolute, measured at 100 degrees Fahrenheit, the drainage facility shall be constructed internally so that parts are enclosed under the cover during draining unless an internal type drainage device cannot fit into the cleaning system.
  - c. Install and operate a freeboard that gives a freeboard ratio greater than or equal to 0.7 if the solvent vapor pressure is greater than 0.6 pound per square inch absolute measured at 100 degrees Fahrenheit, or if the solvent is heated above 120 degrees Fahrenheit.
2. The cold cleaner shall be operated and maintained in accordance with the following practices to minimize solvent evaporation from the unit:
- a. Provide a permanent, legible, conspicuous label, summarizing the operating requirements.
  - b. Store waste solvent in covered containers.
  - c. Close the cover whenever parts are not being handled in the cleaner.
  - d. Drain the cleaned parts until dripping ceases.
  - e. If used, supply a solvent spray that is a solid fluid stream (not a fine, atomized, or shower-type spray) at a pressure that does not exceed 10 pounds per square inch gauge.
  - f. Clean only materials that are neither porous nor absorbent.

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month:
  - a. The identification of the degreasing solvent employed.

- b. The number of gallons of degreasing solvent used.
- c. The density of the solvent, pounds per gallon.
- d. The vapor pressure of each solvent, in pound per square inch absolute, measured at 100 degrees Fahrenheit.
- e. The number of gallons of degreasing solvent disposed of as waste.
- f. The monthly VOC emission rate, see section E.1.a. for calculation method.

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PTI /

Emissions Unit ID: L006

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#### D. Reporting Requirements

1. In accordance with paragraph A.2.b. of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports to the Director (the appropriate Ohio EPA District Office or local air agency) which includes the following information for this emissions unit:
  - a. An identification of each month the VOC emissions exceeded 0.07 ton.
  - b. An identification of each month the use of Stoddard solvent exceeded 21.92 gallons.
  - c. An identification of each day when a solvent other than Stoddard or equivalent non-HAP solvent was employed in this emissions unit.

These reports shall include a description of the deviation, as well as the corrective actions that were taken to achieve compliance.

- 2.. The permittee shall submit annual reports to the Director (appropriate District Office or local air agency) which specify, for this emissions unit, the following information for the previous calendar year:
  - a. An identification of the solvent employed in this emissions unit.
  - b. Total gallons of solvent employed in this emissions unit.
  - c. Total annual VOC emissions.

These reports shall be submitted by January 31 of each year.

#### E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emissions Limitation -  
0.07 ton/month volatile organic compounds  
  
Applicable Compliance Method-

McC

PTI /

Emissions Unit ID: L006

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To determine the actual organic compound emission rate, the following equation shall be used:

$$E = (L_s - L_w) \times D / 2000$$

E = volatile organic compound emission rate (ton/month)

L<sub>s</sub> = liquid volume of Stoddard solvent or equivalent solvent employed each month (gallons)

L<sub>w</sub> = liquid volume of Stoddard solvent or equivalent solvent sent off-site as waste (gallons)

D = density of Stoddard solvent or equivalent solvent (pounds/gallon)

- b. Emission Limitation-  
0.84 TPY volatile organic compounds

Applicable Compliance Method -  
Compliance shall be the sum of the 12 monthly VOC emission rates for the calendar year.

**F. Miscellaneous Requirements**

1. The terms and conditions in sections A, B, C, D and E of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.
2. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

**McCauley Propeller Systems**  
**PTI Application 08-04006**  
**Issue**

**Facility ID: 0857171342**

**Emissions Unit ID: L006**

McC

PTI

Emissions Unit ID: L007

Issued: To be entered upon final issuance

**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>
L007 - No 1 Engineering Test Thinner Tank	OAC rule 3745-31-05(A)(3)	0.10 tons/month and 1.18 ton/yr volatile organic compounds
	OAC rule 3745-21-09(O)(2)	See B.1. and B.2.
	OAC rule 3745-35-07(B) Synthetic Minor	See A.2.b

**2. Additional Terms and Conditions**

- 2.a The use of cleaning solvent in this emissions unit shall not exceed 29.2 gallons/month and 350 gallons/year.
- 2.b The usage\* of Hazardous Air Pollutants (HAPS), as identified in Section 112(b) of Title III of the Clean Air Act, from this facility i.e., K001, K002, L007, L008, L009, L010, P002, P003, and P005, shall not exceed 0.825 ton/month (1650 lbs/month) for any individual HAP and 2.075 tons/month (4150 lbs/month) for any combination of HAPs.

\*This assumes the HAPs emitted are the same as the amount of HAPs used since all HAPs used evaporate.

**B. Operational Restrictions**

**Issued: To be entered upon final issuance**

1. The permittee shall meet all of the following required work and operational practices:
  - a. Equip the cold cleaner with a cover; and if the solvent has a vapor pressure greater than 0.3 pounds per square inch absolute measured at 100 degrees Fahrenheit, or the solvent is heated or agitated, the cover shall be designed and constructed so that it can be easily operated with one hand.
  - b. Equip the cold cleaner with a device for draining the cleaned parts; and if the solvent has a vapor pressure greater than 0.6 pounds per square inch absolute, measured at 100 degrees Fahrenheit, the drainage facility shall be constructed internally so that parts are enclosed under the cover during draining unless an internal type drainage device cannot fit into the cleaning system.
  - c. Install and operate a freeboard that gives a freeboard ratio greater than or equal to 0.7 if the solvent vapor pressure is greater than 0.6 pounds per square inch absolute measured at 100 degrees Fahrenheit, or if the solvent is heated above 120 degrees Fahrenheit.
2. The cold cleaner shall be operated and maintained in accordance with the following practices to minimize solvent evaporation from the unit:
  - a. Provide a permanent, legible, conspicuous label, summarizing the operating requirements.
  - b. Store waste solvent in covered containers.
  - c. Close the cover whenever parts are not being handled in the cleaner.
  - d. Drain the cleaned parts until dripping ceases.
  - e. If used, supply a solvent spray that is a solid fluid stream (not a fine, atomized, or shower-type spray) at a pressure that does not exceed 10 pounds per square inch gauge.
  - f. Clean only materials that are neither porous nor absorbent.

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month:

McC

PTI /

Emissions Unit ID: L007

**Issued: To be entered upon final issuance**

- a. The identification of the degreasing solvent employed.
- b. The number of gallons of degreasing solvent used.
- c. The density of the solvent, pounds per gallon.
- d. The vapor pressure of each solvent, in pound per square inch absolute, measured at 100 degrees Fahrenheit.
- e. The number of gallons of degreasing solvent disposed of as waste.
- f. The monthly VOC emission rate, see section E.1.a. for calculation method.
- g. The individual Hazardous Air Pollutant (HAP) content of each degreasing solvent used.
- h. The total individual HAP emissions for each degreasing solvent employed, in pounds or tons per month.
- i. The total combined Hazardous Air Pollutant (HAP) emissions from all degreasing solvents.

**D. Reporting Requirements**

1. In accordance with paragraph A.2.b. of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports to the Director (the appropriate Ohio EPA District Office or local air agency) which includes the following information for this emissions unit:
  - a. An identification of each month the use of solvent exceeded 29.2 gallons.
  - b. An identification of each day during which the emissions of an individual HAP from the facility exceeded 1650 lbs and the actual monthly emissions of the individual HAP for each such month.
  - c. An identification of each month during which the emissions of combined HAPs from the facility exceeded 4150 lbs and the actual monthly emissions or combined HAPs for each such month.

These reports shall include a description of the deviation, as well as the corrective actions that were taken to achieve compliance.

2. The permittee shall submit annual reports to the Director (appropriate District Office or local air agency) which specify, for this emissions unit, the following information for the previous calendar year:
  - a. An identification of the solvent employed in this emissions unit.
  - b. Total gallons of solvent employed in this emissions unit.
  - c. Total annual VOC emissions

These reports shall be submitted by January 31 of each calendar year

3. The permittee shall submit annual reports to the Director (appropriate District Office or local air agency) which specify the total and individual HAPs emissions on a facility-wide basis. These reports shall be submitted by January 31 of each calendar year.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emissions Limitation -  
0.09 tons/month volatile organic compounds

Applicable Compliance Method-

To determine the actual volatile organic compound emission rate, the following equation shall be used:

$$E = (L_s - L_w) \times D / 2000$$

E = volatile organic compound emission rate (ton/month)

L<sub>s</sub> = liquid volume of Superior 678 or equivalent solvent employed each month (gallons)

McC

PTI

Emissions Unit ID: L007

**Issued: To be entered upon final issuance**

Lw = liquid volume of Superior 678 solvent or equivalent solvent sent off-site as waste (gallons)

D = density of Superior 678 solvent or equivalent solvent (pounds/gallon)

- b. Emission Limitation-  
1.18 ton/yr organic compounds

Applicable Compliance Method -  
Compliance shall be the sum of the monthly OC emission rates for the calendar year.

- c. Emission Limitation-  
Monthly usage of cleaning solvent shall not exceed 29.2 gallons

Applicable Compliance Method-  
Compliance shall be based upon the recordkeeping specified in C.1.

- d. Emission Limitation-  
Individual HAPs emissions shall not exceed 0.825 tons/month (1650 lbs/month) from entire facility.

Applicable Compliance Method-  
Compliance shall be based upon the record keeping requirements as specified in section C.1. of the terms and conditions of this PTI and shall be the sum of the monthly individual HAPs emissions for the entire facility which presently includes emission units: K001, Paint Booth No. 1; K002, Paint Booth No. 2; P001, Aluminum anodizing; P002, Cadmium Plating; P003, Booting Operation; P005, Miscellaneous cleaning of Parts and Guns; L007, #1 engineering Thinner Tank; L008, #2 Subassembly Thinner Tank; L009, #3 Repair Department Thinner Tank and; L010, Open Top Methylene chloride Vapor Degreaser.

McC

PTI /

Emissions Unit ID: **L007**

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- e. Emission Limitation-  
Total HAPs emissions shall not exceed 2.075tons/month (4150 lbs/month) from all emission units.

Applicable Compliance Method-

Compliance shall be based upon the record keeping requirements as specified in section C.1. of the terms and conditions of this PTI and shall be the sum of the monthly HAPs emissions for the entire facility which presently includes emission units: K001, Paint Booth No. 1; K002, Paint Booth No. 2; P001, Aluminum anodizing; P002, Cadmium Plating; P003, Booting Operation; P005, Miscellaneous cleaning of Parts and Guns; L007, #1 engineering Thinner Tank; L008, #2 Subassembly Thinner Tank; L009, #3 Repair Department Thinner and; L010, Open Top Methylene chloride Vapor Degreaser..

**F. Miscellaneous Requirements**

Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

**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>
L008 - No 2 Subassembly Thinner Tank	OAC rule 3745-31-05(A)(3)	0.09 tons/month and 1.18 ton/yr volatile organic compounds(VOC)
	OAC rule 3745-21-09(O)(2)	See B.1. and B.2.
	OAC rule 3745-35-07(B) Synthetic Minor	See A.2.b

**2. Additional Terms and Conditions**

- 2.a The use of cleaning solvent in this emissions unit shall not exceed 29.2 gallons/month and 350 gallons/year.
- 2.b The usage\* of Hazardous Air Pollutants (HAPS), as identified in Section 112(b) of Title III of the Clean Air Act, from this facility i.e., K001, K002, L007, L008, L009, L010, P002, P003, and P005, shall not exceed 0.825 ton/month (1650 lbs/month) for any individual HAP and 2.075 tons/month (4150 lbs/month) for any combination of HAPS.

\*This assumes the HAPs emitted are the same as the amount of HAPs used since all HAPs used evaporate.

**B. Operational Restrictions**

**Issued: To be entered upon final issuance**

1. The permittee shall meet all of the following required work and operational practices:
  - a. Equip the cold cleaner with a cover; and if the solvent has a vapor pressure greater than 0.3 pound per square inch absolute measured at 100 degrees Fahrenheit, or the solvent is heated or agitated, the cover shall be designed and constructed so that it can be easily operated with one hand.
  - b. Equip the cold cleaner with a device for draining the cleaned parts; and if the solvent has a vapor pressure greater than 0.6 pound per square inch absolute, measured at 100 degrees Fahrenheit, the drainage facility shall be constructed internally so that parts are enclosed under the cover during draining unless an internal type drainage device cannot fit into the cleaning system.
  - c. Install and operate a freeboard that gives a freeboard ratio greater than or equal to 0.7 if the solvent vapor pressure is greater than 0.6 pound per square inch absolute measured at 100 degrees Fahrenheit, or if the solvent is heated above 120 degrees Fahrenheit.
2. The cold cleaner shall be operated and maintained in accordance with the following practices to minimize solvent evaporation from the unit:
  - a. Provide a permanent, legible, conspicuous label, summarizing the operating requirements.
  - b. Store waste solvent in covered containers.
  - c. Close the cover whenever parts are not being handled in the cleaner.
  - d. Drain the cleaned parts until dripping ceases.
  - e. If used, supply a solvent spray that is a solid fluid stream (not a fine, atomized, or shower-type spray) at a pressure that does not exceed 10 pounds per square inch gauge.
  - f. Clean only materials that are neither porous nor absorbent.

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month:

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- a. The identification of the degreasing solvent employed.
- b. The number of gallons of degreasing solvent used.
- c. The density of the solvent, pounds per gallon.
- d. The vapor pressure of each solvent, in pound per square inch absolute, measured at 100 degrees Fahrenheit.
- e. The number of gallons of degreasing solvent disposed of as waste.
- f. The monthly VOC emission rate, see section E.1.a. for calculation method.
- g. The individual Hazardous Air Pollutant (HAP) content of each degreasing solvent used.
- h. The total individual HAP emissions for each degreasing solvent employed, in pounds or tons per month.
- i. The total combined Hazardous Air Pollutant (HAP) emissions from all degreasing solvents.

**D. Reporting Requirements**

1. In accordance with paragraph A.2.b. of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports to the Director (the appropriate Ohio EPA District Office or local air agency) which includes the following information for this emissions unit:
  - a. An identification of each month the use of solvent exceeded 29.2 gallons.
  - b. An identification of each day during which the emissions of an individual HAP from the facility exceeded 1650 lbs and the actual monthly emissions of the individual HAP for each such month.
  - c. An identification of each month during which the emissions of combined HAPs from the facility exceeded 4150 lbs and the actual monthly emissions or combined HAPs for each such month.

These reports shall include a description of the deviation, as well as the corrective actions that were taken to achieve compliance.

2. The permittee shall submit annual reports to the Director (appropriate District Office or local air agency) which specify, for this emissions unit, the following information for the previous calendar year:
  - a. An identification of the solvent employed in this emissions unit.
  - b. Total gallons of solvent employed in this emissions unit.
  - c. Total annual OC emissions

These reports shall be submitted by January 31 of each calendar year

3. The permittee shall submit annual reports to the Director (appropriate District Office or local air agency) which specify the total and individual HAPs emissions on a facility-wide basis. These reports shall be submitted by January 31 of each calendar year.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emissions Limitation -  
0.09 ton/month organic compounds

Applicable Compliance Method-

To determine the actual volatile organic compound emission rate, the following equation shall be used:

$$E = (L_s - L_w) \times D / 2000$$

E = volatile organic compound emission rate (ton/month)

L<sub>s</sub> = liquid volume of Superior 678 or equivalent solvent employed each month (gallons)

L<sub>w</sub> = liquid volume of Superior 678 solvent or equivalent solvent sent off-site as waste

McC

PTI

Emissions Unit ID: L008

Issued: To be entered upon final issuance

(gallons)

D = density of Superior 678 solvent or equivalent solvent (pounds/gallon)

- b. Emission Limitation-  
1.18 tons/yr volatile organic compounds

Applicable Compliance Method -  
Compliance shall be the sum of the monthly VOC emission rates for the calendar year.

- c. Emission Limitation-  
Monthly usage of cleaning solvent shall not exceed 29.2 gallons

Applicable Compliance Method-  
Compliance shall be based upon the recordkeeping specified in C.1.

- d. Emission Limitation-  
Individual HAPs emissions shall not exceed 0.825 tons/month (1650 lbs/month) from entire facility.

Applicable Compliance Method-  
Compliance shall be based upon the record keeping requirements as specified in section C.1. of the terms and conditions of this PTI and shall be the sum of the monthly individual HAPs emissions for the entire facility which presently includes emission units: K001, Paint Booth No. 1; K002, Paint Booth No. 2; P001, Aluminum anodizing; P002, Cadmium Plating; P003, Booting Operation; P005, Miscellaneous cleaning of Parts and Guns; L007, #1 engineering Thinner Tank; L008, #2 Subassembly Thinner Tank; L009, #3 Repair Department Thinner Tank and; L010, Open Top Methylene chloride Vapor Degreaser.

Issue

Emissions Unit ID: L008

- e. Emission Limitation-  
Total HAPs emissions shall not exceed 2.075tons/month (4150 lbs/month) from all emission units.

Applicable Compliance Method-

Compliance shall be based upon the record keeping requirements as specified in section C.1. of the terms and conditions of this PTI and shall be the sum of the monthly HAPs emissions for the entire facility which presently includes emission units: K001, Paint Booth No. 1; K002, Paint Booth No. 2; P001, Aluminum anodizing; P002, Cadmium Plating; P003, Booting Operation; P005, Miscellaneous cleaning of Parts and Guns; L007, #1 engineering Thinner Tank; L008, #2 Subassembly Thinner Tank; L009, #3 Repair Department Thinner and; L010, Open Top Methylene chloride Vapor Degreaser..

**F. Miscellaneous Requirements**

1. The terms and conditions in sections A, B, C, D and E of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.
2. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

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**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>
L009 - No 3 Repair Department Thinner Tank	OAC rule 3745-31-05(A)(3)	0.10 tons/month and 1.18 ton/yr volatile organic compounds (VOC)
	OAC rule 3745-21-09(O)(2)	See B.1. and B.2.
	OAC rule 3745-35-07(B) Synthetic Minor	See A.2.b

**2. Additional Terms and Conditions**

- 2.a The use of cleaning solvent in this emissions unit shall not exceed 29.2 gallons/month and 350 gallons/year.
- 2.b The usage\* of Hazardous Air Pollutants (HAPS), as identified in Section 112(b) of Title III of the Clean Air Act, from this facility i.e., K001, K002, L007, L008, L009, L010, P002, P003, and P005, shall not exceed 0.825 ton/month (1650 lbs/month) for any individual HAP and 2.075 tons/month (4150 lbs/month) for any combination of HAPs.

\*This assumes the HAPs emitted are the same as the amount of HAPs used since all HAPs used evaporate.

**B. Operational Restrictions**

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1. The permittee shall meet all of the following required work and operational practices:
  - a. Equip the cold cleaner with a cover; and if the solvent has a vapor pressure greater than 0.3 pound per square inch absolute measured at 100 degrees Fahrenheit, or the solvent is heated or agitated, the cover shall be designed and constructed so that it can be easily operated with one hand.
  - b. Equip the cold cleaner with a device for draining the cleaned parts; and if the solvent has a vapor pressure greater than 0.6 pound per square inch absolute, measured at 100 degrees Fahrenheit, the drainage facility shall be constructed internally so that parts are enclosed under the cover during draining unless an internal type drainage device cannot fit into the cleaning system.
  - c. Install and operate a freeboard that gives a freeboard ratio greater than or equal to 0.7 if the solvent vapor pressure is greater than 0.6 pound per square inch absolute measured at 100 degrees Fahrenheit, or if the solvent is heated above 120 degrees Fahrenheit.
2. The cold cleaner shall be operated and maintained in accordance with the following practices to minimize solvent evaporation from the unit:
  - a. Provide a permanent, legible, conspicuous label, summarizing the operating requirements.
  - b. Store waste solvent in covered containers.
  - c. Close the cover whenever parts are not being handled in the cleaner.
  - d. Drain the cleaned parts until dripping ceases.
  - e. If used, supply a solvent spray that is a solid fluid stream (not a fine, atomized, or shower-type spray) at a pressure that does not exceed 10 pounds per square inch gauge.
  - f. Clean only materials that are neither porous nor absorbent.

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month:

- a. The identification of the degreasing solvent employed.
- b. The number of gallons of degreasing solvent used.
- c. The density of the solvent, pounds per gallon.
- d. The vapor pressure of each solvent, in pound per square inch absolute, measured at 100 degrees Fahrenheit.
- e. The number of gallons of degreasing solvent disposed of as waste.
- f. The monthly VOC emission rate, see section E.1.a. for calculation method.
- g. The individual Hazardous Air Pollutant (HAP) content of each degreasing solvent used.
- h. The total individual HAP emissions for each degreasing solvent employed, in pounds or tons per month.
- i. The total combined Hazardous Air Pollutant (HAP) emissions from all degreasing solvents.

**D. Reporting Requirements**

1. In accordance with paragraph A.2.b. of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports to the Director (the appropriate Ohio EPA District Office or local air agency) which includes the following information for this emissions unit:
  - a. An identification of each month the use of solvent exceeded 29.2 gallons.
  - b. An identification of each day during which the emissions of an individual HAP from the facility exceeded 1650 lbs and the actual monthly emissions of the individual HAP for each such month.
  - c. An identification of each month during which the emissions of combined HAPs from the facility exceeded 4150 lbs and the actual monthly emissions or combined HAPs for each such month.

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These reports shall include a description of the deviation, as well as the corrective actions that were taken to achieve compliance.

2. The permittee shall submit annual reports to the Director (appropriate District Office or local air agency) which specify, for this emissions unit, the following information for the previous calendar year:
  - a. An identification of the solvent employed in this emissions unit.
  - b. Total gallons of solvent employed in this emissions unit.
  - c. Total annual VOC emissions

These reports shall be submitted by January 31 of each calendar year

3. The permittee shall submit annual reports to the Director (appropriate District Office or local air agency) which specify the total and individual HAPs emissions on a facility-wide basis. These reports shall be submitted by January 31 of each calendar year.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emissions Limitation -  
0.09 ton/month organic compounds

Applicable Compliance Method-

To determine the actual organic compound emission rate, the following equation shall be used:

$$E = (L_s - L_w) \times D / 2000$$

E = volatile organic compound emission rate (ton/month)

L<sub>s</sub> = liquid volume of Superior 678 or equivalent solvent employed each month (gallons)

McC

PTI /

Emissions Unit ID: L009

**Issued: To be entered upon final issuance**

Lw = liquid volume of Superior 678 solvent or equivalent solvent sent off-site as waste (gallons)

D = density of Superior 678 solvent or equivalent solvent (pounds/gallon)

- b. Emission Limitation-  
1.18 ton/yr volatile organic compounds

Applicable Compliance Method -  
Compliance shall be the sum of the monthly VOC emission rates for the calendar year.

- c. Emission Limitation-  
Monthly usage of cleaning solvent shall not exceed 29.2 gallons

Applicable Compliance Method-  
Compliance shall be based upon the recordkeeping specified in C.1.

- d. Emission Limitation-  
Individual HAPs emissions shall not exceed 0.825 tons/month (1650 lbs/month) from entire facility.

Applicable Compliance Method-  
Compliance shall be based upon the record keeping requirements as specified in section C.1. of the terms and conditions of this PTI and shall be the sum of the monthly individual HAPs emissions for the entire facility which presently includes emission units: K001, Paint Booth No. 1; K002, Paint Booth No. 2; P001, Aluminum anodizing; P002, Cadmium Plating; P003, Booting Operation; P005, Miscellaneous cleaning of Parts and Guns; L007, #1 engineering Thinner Tank; L008, #2 Subassembly Thinner Tank; L009, #3 Repair Department Thinner Tank and; L010, Open Top Methylene chloride Vapor Degreaser.

Issue

Emissions Unit ID: L009

- e. Emission Limitation-  
Total HAPs emissions shall not exceed 2.075tons/month (4150 lbs/month) from all emission units.

Applicable Compliance Method-

Compliance shall be based upon the record keeping requirements as specified in section C.1. of the terms and conditions of this PTI and shall be the sum of the monthly HAPs emissions for the entire facility which presently includes emission units: K001, Paint Booth No. 1; K002, Paint Booth No. 2; P001, Aluminum anodizing; P002, Cadmium Plating; P003, Booting Operation; P005, Miscellaneous cleaning of Parts and Guns; L007, #1 engineering Thinner Tank; L008, #2 Subassembly Thinner Tank; L009, #3 Repair Department Thinner and; L010, Open Top Methylene chloride Vapor Degreaser..

**F. Miscellaneous Requirements**

1. The terms and conditions in sections A, B, C, D and E of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.
2. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

McC  
PTI

Emissions Unit ID: L010

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**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>
L010 - Open Top Methylene Chloride Vapor Degreaser - Dye Check Degreaser	OAC rule 3745-31-05(A)(3)	0.62 ton/month and 7.4 ton/year volatile organic compounds (VOC)
	NESHAP-40 CFR PART 63 Subpart T	See A.2.a
	OAC rule 3745-21-09(O)	See A.2.b
	OAC rule 3745-35-07(B) Synthetic Minor Restriction	See A.2.c

**2. Additional Terms and Conditions**

**2.a** The permittee shall comply with the following requirements:

- i. 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.
- ii. The permittee shall maintain a freeboard with a freeboard ratio equal to 1.0 or greater
- iii. Use of reduced room draft that ensures that the flow or movement across the top of the freeboard area of the solvent cleaning machine or within the solvent cleaning

McC

PTI

Emissions Unit ID: L010

**Issued: To be entered upon final issuance**

machine enclosure does not exceed 15.2 meters per minute (50 feet per minute) at any time measured using the procedure described in the "Monitoring and/or Recordkeeping Requirements" section of this permit.

- iv. Establish and maintain the operating conditions under which the wind speed was demonstrated to be 15.2 meters per minute (50 feet per minute) or less.

**2.b** Since this degreaser is subject to 40 CFR Part 63, Subpart T, it is exempted from rule 3745-21-09, paragraphs (O)(2) through (O)(5).

**2.c** The usage\* of Hazardous Air Pollutants (HAPS), as identified in Section 112(b) of Title III of the Clean Air Act, from this facility i.e., K001, K002, L007, L008, L009, L010, P002, P003, and P005, shall not exceed 0.825 ton/month (1650 lbs/month) for any individual HAP and 2.075 tons/month (4150 lbs/month) for any combination of HAPS.

\*This assumes the HAPs emitted are the same as the amount of HAPs used since all HAPs used evaporate.

**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:

The permittee shall employ a reduced room draft that ensures that the flow or movement 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 (50 feet per minute) at any time as measured using the procedures described in the "Monitoring and/or Recordkeeping Requirements" section of this permit. The permittee shall also establish and maintain the operating conditions under which the wind speed was demonstrated to be 15.2 meters per minute (50 feet per minute) or less as described in the "Monitoring and/or Recordkeeping Requirements" section of this permit.

- b. The parts baskets or the parts being cleaned in solvent cleaning machine shall not occupy more the 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.
- 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).
- 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 degreaser 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).
- 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.

**C. Monitoring and/or Recordkeeping Requirements**

**Issued: To be entered upon final issuance**

1. 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 (methylene chloride) solvent usage in the degreaser tank.
2. The permittee shall maintain monthly records of the following information:
  - a. The identification of the degreasing solvent employed.
  - b. The number of gallons of degreasing solvent used.
  - c. The number of gallons of degreasing solvent disposed of as waste.
  - d. The monthly VOC emission rate, see section E.1.a. for calculation method.
  - e. The total individual HAPs emissions, in pounds per month.
  - f. The total combined HAPs emissions, in pounds per month.
3. 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.

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 maintain the following records in written or electronic form for a period of five years for the solvent degreaser:
  - 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.
6. The permittee shall conduct weekly monitoring of room parameters as specified below:
  - a. Measure the wind speed within 6 inches above the top of the freeboard area of the solvent cleaning machine as follows:
  - b. Determine the direction of the wind current by slowly rotating a velometer or similar device until the maximum speed is located.
  - c. Orient a velometer in the direction of the wind current at each of the four corners of the machine.
  - d. Record the reading for each corner.
  - e. Average the values obtained at each corner and record the average wind speed.

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PTI /

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Emissions Unit ID: L010

#### D. Reporting Requirements

1. The permittee shall submit an annual report by January 31 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 63.463 (d)(10)."
  - b. An estimate of solvent consumption during the reporting period.
2. In accordance with paragraph A.2.b of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports to the Director (the appropriate Ohio EPA District Office or local air agency) which includes the following information for this emissions unit:
  - a. If no operation conditions were established under which the wind speed was demonstrated to be 15.2 meters per minute (50 feet per minute) and/or if the flow of air across the top of the freeboard area of the cleaning machine or within the solvent cleaning machine enclosure exceeded 15.2 meters/minute and no correction was made within 15 days of detection, or
  - b. 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.
  - c. 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.
  - d. An identification of each day during which the emissions of an individual HAP from the facility exceeded 1650 lbs and the actual monthly emissions of the individual HAP for each such month.
  - e. An identification of each month during which the emissions of combined HAPs from the

Issue

Emissions Unit ID: L010

facility exceeded 4150 lbs and the actual monthly emissions or combined HAPs for each such month.

f. If no exceedance has occurred, a statement to that effect shall be submitted.

3. The permittee shall submit annual reports to the Director (appropriate District Office or local air agency) which specify the total and individual HAPs emissions on a facility-wide basis. These reports shall be submitted by January 31 of each calendar year.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A. Of these terms and conditions shall be determined in accordance with the following method(s).

a. Emission Limitation-  
.62 ton/year volatile organic compounds

Applicable Compliance Method-

To determine the actual volatile organic compound emission rate, the following equation shall be used:

$$E = (Ls - Lw) \times D / 2000$$

E = volatile organic compound emission rate (ton/month)

Ls = liquid volume of methylene chloride solvent employed each month (gallons)

Lw = liquid volume of methylene chloride sent off-site as waste (gallons)

D = density of methylene chloride solvent (pounds/gallon)

b. Emission Limitation-  
7.4 tons/year compounds

Applicable Compliance Method-

Compliance shall be the sum of the 12 monthly VOC emission rates for the calendar year.

c. Emission Limitation-

McC

PTI

Emissions Unit ID: **L010**

**Issued: To be entered upon final issuance**

Individual HAP emissions shall not exceed 0.825 ton/month (1650 lbs/month) from entire facility.

Applicable Compliance Method-

Compliance shall be based upon the record keeping requirements as specified in section C.1. of the terms and conditions of this PTI and shall be the sum of the monthly individual HAPs emissions for the entire facility which presently includes emission units: K001, Paint Booth No. 1; K002, Paint Booth No. 2; P001, Aluminum anodizing; P002, Cadmium Plating; P003, Booting Operation; P005, Miscellaneous cleaning of Parts and Guns; L007, #1 engineering Thinner Tank; L008, #2 Subassembly Thinner Tank; L009, #3 Repair Department Thinner Tank and; L010, Open Top Methylene chloride Vapor Degreaser.

d. Emission Limitation-

Total HAPs emissions shall not exceed 2.075ton/month (4150 lbs/month) from all emission units.

Applicable Compliance Method-

Compliance shall be based upon the record keeping requirements as specified in section C.1. of the terms and conditions of this PTI and shall be the sum of the monthly HAPs emissions for the entire facility which presently includes emission units: K001, Paint Booth No. 1; K002, Paint Booth No. 2; P001, Aluminum anodizing; P002, Cadmium Plating; P003, Booting Operation; P005, Miscellaneous cleaning of Parts and Guns; L007, #1 engineering Thinner Tank; L008, #2 Subassembly Thinner Tank; L009, #3 Repair Department Thinner and; L010, Open Top Methylene chloride Vapor Degreaser..

**F. Miscellaneous Requirements**

1. The terms and conditions in sections A, B, C, D and E of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.
2. In accordance with 40 CFR 63.469, upon written application, the Administrator may approve the use of equipment or procedures after they have been satisfactorily demonstrated to be equivalent, in terms of reducing emissions of methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, or chloroform to the atmosphere, to those prescribed for compliance within a specified paragraph of 40 CFR Part 63 Subpart T. The application must contain a complete description of the equipment or procedure and the proposed equivalency testing procedure and the date, time, and location scheduled for the equivalency demonstration

**McCauley Propeller Systems**  
**PTI Application 08-04006**  
**Issue**

**Facility ID: 0857171342**

**Emissions Unit ID: L010**

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

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

- 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	<u>Applicable Rules/Requirements</u>	OAC rule 3745-35-07(B)
P001 - Aluminum Anodizing, chromic acid	OAC rule 3745-31-05(A)(3)	
	40 CFR Part 63 Subpart N	
	OAC rule 3745-17-07(A)	
	OAC rule 3745-17-11(B)(1)	

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**PTI**

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Emissions Unit ID: **P001**

Applicable Emissions  
Limitations/Control Measures

4.5 E-5 ton/year of chromium

The requirements of this rule also include compliance with the requirements of 40 CFR Part 63, Subpart N, OAC rule 3745-17-07(A) and OAC rule 3745-17-11(B)(1)

The permittee shall control chromium emissions discharged to the atmosphere by not allowing the surface tension of the electroplating or anodizing bath to exceed 45 dynes per centimeter (3.1 E-3 pound-force per foot) at any time during operation of the tank.

20% opacity as a 6-minute average

0.551 lb/hr and 2.41 ton/yr  
particulates

See 2.a

McC

PTI

Emissions Unit ID: **P001**

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**2. Additional Terms and Conditions**

**2.a** The usage\* of Hazardous Air Pollutants (HAPS), as identified in Section 112(b) of Title III of the Clean Air Act, from this facility i.e., K001, K002, L007, L008, L009, L010, P002, P003, and P005, shall not exceed 0.825 ton/month (1650 lbs/month) for any individual HAP and 2.075 tons/month (4150 lbs/month) for any combination of HAPs.

\*This assumes the HAPs emitted are the same as the amount of HAPs used since all HAPs used evaporate.

**B. Operational Restrictions**

1. At all times, including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain any chromium electroplating or anodizing tank, including associated air pollution control devices and monitoring equipment, in a manner consistent with the operation and maintenance plan required by these terms and conditions.
2. Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the operation and maintenance plan.
3. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the appropriate Ohio EPA District Office or local air agency, which may include, but is not limited to, monitoring results; review of the operation and maintenance plan, procedures, and records; and inspection of the emission unit. Based on this information, the appropriate Ohio EPA District Office or local air agency may require that the permittee make changes to the operation and maintenance plan if that plan:
  - a. does not address a malfunction that has occurred;
  - b. fails to provide for the operation of the emission units, the air pollution control techniques, or the control system and process monitoring equipment during a malfunction in a manner consistent with good air pollution practices; or
  - c. does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control techniques, or monitoring equipment as quickly as practicable.
4. The permittee shall implement an operation and maintenance plan that includes the following:

McC

PTI /

Emissions Unit ID: **P001**

**Issued: To be entered upon final issuance**

- a. The plan shall specify the operation and maintenance criteria for the affected source, the add-on air pollution control device (if such a device is used to comply with the emissions limits), and the process and control system monitoring equipment, and shall include a standardized checklist to document the operation and maintenance of the equipment.
- b. If a stalagmometer is used for monitoring, follow the manufacturer's recommendation.
- c. The plan shall specify procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur.
- d. The plan shall include a systematic procedure for identifying malfunctions of process equipment, add-on air pollution control devices, and process and control system monitoring equipment, and for implementing corrective actions to address such malfunctions.
- e. If the operation and maintenance plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the permittee shall revise the operation and maintenance plan within 45 days after such an event occurs.
- f. If actions taken by the permittee during periods of malfunction are inconsistent with the procedures specified in the operation and maintenance plan, the permittee shall record the actions taken for that event and shall report such actions within 2 working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within 7 working days after the end of the event, unless the permittee makes alternative reporting arrangements, in advance, with the appropriate Ohio EPA District Office or local air agency.
- g. The permittee shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, by the appropriate Ohio EPA District Office or local air agency for the life of the emission unit. If the operation and maintenance plan is revised, the permittee shall keep previous versions of the plan on record to be made available for inspection, upon request, by the appropriate Ohio EPA District Office or local air agency for a period of five years after each revision to the plan.
- h. The permittee may use applicable standard operating procedure (SOP) manuals,

Occupational Safety and Health Administration (OSHA) plans, or other existing plans to meet the operation and maintenance plan requirements as long as the alternative plans meet the requirements.

**C. Monitoring and/or Recordkeeping Requirements**

1. Wetting agent-type fume suppressant monitoring requirements to demonstrate continuous compliance:

During the initial performance test, the permittee shall determine the outlet chromium concentration using the methods as described in the "Testing Requirements" section of this permit to comply with the emission limitations through the use of a wetting agent-type fume suppressant. The permittee has accepted 45 dynes/cm as the maximum surface tension value that corresponds to compliance with the applicable emission limitation. The initial performance testing was conducted on June 18, 1997.

McC

PTI

Emissions Unit ID: P001

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2. On and after the date on which the initial performance test is required to be completed under section 63.7 of 40 CFR Part 63, Subpart A, the permittee shall monitor the surface tension of the electroplating or anodizing bath. Operation of the affected emissions unit at a surface tension greater than 45 dynes/cm, shall constitute noncompliance with the standards.
3. The surface tension shall be monitored according to the following schedule:
  - a. The surface tension shall be measured once every four hours during operation of the tank with a stalagmometer or a tensiometer as specified in Method 306B of 40 CFR Part 63, Subpart N.
  - b. The time between monitoring can be increased if there have been no exceedances. The surface tension shall be measured once every four hours of tank operation for the first 40 hours of tank operation after the compliance date. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 8 hours of tank operation. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 40 hours of tank operation on an ongoing basis, until an exceedance occurs. The minimum frequency of monitoring allowed is once every 40 hours of tank operation.
  - c. Once an exceedance occurs, as indicated through surface tension monitoring, the original monitoring schedule of once every four hours must be resumed. A subsequent decrease in frequency shall follow the schedule in paragraph (ii) above.
  - d. Once a bath solution is drained from the affected tank and a new solution added, the original monitoring schedule of once every four hours must be resumed, with a decrease in monitoring frequency allowed as in paragraph (ii) above.
4. The permittee shall fulfill all recordkeeping requirements in the General Provisions to 40 CFR Part 63, according to the applicability of Subpart A.
5. The permittee also shall maintain the following records:
  - a. inspection records for the add-on air pollution control device, if such a device is used, and monitoring equipment, to document that the inspection and maintenance required by the work practice standards of this permit have taken place (The record can take the form of a checklist and should identify the device inspected, the date of inspection, a brief

description of the working condition of the device during the inspection, and any actions taken to correct deficiencies found during the inspection.);

- b. records of all maintenance performed on the emissions unit, add-on air pollution control device, and monitoring equipment;
- c. records of the occurrence, duration, and cause (if known) of each malfunction of process, add-on air pollution control device, and monitoring equipment;
- d. records of actions taken during periods of malfunction when such actions are inconsistent with the operation and maintenance plan;
- e. other records, which may take the form of checklists, necessary to demonstrate consistence with the provisions of the operation and maintenance plan;
- f. test reports documenting results of all performance tests;
- g. all measurements as may be necessary to determine the conditions of performance tests;
- h. records of monitoring data that are used to demonstrate compliance with the standard including the date and time the data are collected;
- i. the specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during malfunction of the process, add-on air pollution control device, or monitoring equipment;
- j. the specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during periods other than malfunction of the process, add-on air pollution control device, or monitoring equipment;
- k. the total process operating time of the emission unit during the reporting period;
- l. all documentation supporting the notifications and reports as outlined in the reporting requirements of this permit and sections 63.9 and 63.10 of 40 CFR Part 63, Subpart A; and
- m. records of the date and time that fume suppressants are added to the electroplating or

McC

PTI /

Emissions Unit ID: **P001**

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anodizing bath.

6. The permittee shall maintain monthly records of the following information:
  - a. The total individual HAPs emissions, in pounds per month.
  - b. The total combined HAPs emissions, in pounds per month.
7. All records shall be maintained for a period of five years.

**D. Reporting Requirements**

1. The permittee shall fulfill all reporting requirements as outlined in 40 CFR Part 63, Subpart A. These reports shall be made to the appropriate Ohio EPA District Office or local air agency and shall be sent by U.S. mail, fax or by another courier.
  - a. submittals sent by U.S. mail shall be postmarked on or before the specified date.
  - b. submittals sent by other methods shall be received by the appropriate Ohio EPA District Office or local air agency on or before the specified date.
2. The permittee shall prepare an ongoing compliance status report annually (unless a request to reduce frequency of ongoing compliance status reports has been approved) to the appropriate Ohio EPA District Office or local air agency to document the ongoing compliance status of the emissions unit. This report shall include the following:
  - a. the company name and address of the emissions unit
  - b. an identification of the operating parameter that is monitored for compliance determination
  - c. the relevant emission limitation for the emissions unit, and the operating parameter value, or range of values, that correspond to compliance with this emission limitation as specified in the Notification of Compliance Status required by this section;
  - d. the beginning and ending dates of the reporting period;

- e. the total operating time of the emissions unit during the reporting period;
  - f. a summary of operating parameter values, including the total duration of excess emissions during the reporting period as indicated by those values, the total duration of excess emissions expressed as a percent of the total emissions unit operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to process upsets, control equipment malfunctions, other known causes, and unknown causes;
  - g. a certification by a responsible official that the work practice standards in this permit were followed in accordance with the operation and maintenance plan for the emissions unit;
  - h. if the operation and maintenance plan required by this permit was not followed, an explanation of the reasons for not following the provisions, an assessment of whether any excess emission and/or parameter monitoring exceedances are believed to have occurred, and a copy of the reports required by the work practices in this permit;
  - i. a description of any changes in monitoring, processes, or controls since the last reporting period;
  - j. the name, title, and signature of the responsible official who is certifying the accuracy of the report; and
  - k. the date of the report
3. The permittee shall submit semiannual reports if the following conditions are met:
    - a. the total duration of excess emissions is one percent or greater of the total operating time for the reporting period; and
    - b. the total duration of malfunctions of the add-on air pollution control device and monitoring equipment is 5 percent or greater of the total operating time.
  4. Once the permittee reports an exceedance, ongoing compliance status reports shall be submitted semiannually until a request to reduce reporting frequency is approved.
  5. The appropriate Ohio EPA District Office or local air agency may determine on a case-by-case basis that the summary report shall be completed more frequently and submitted, or that the

McC

PTI /

Emissions Unit ID: **P001**

**Issued: To be entered upon final issuance**

annual report shall be submitted instead of being retained on site, if these measures are necessary to accurately assess the compliance status of the emissions unit.

6. The permittee who is required to submit ongoing compliance status reports on a semiannual (or more frequent) basis, or is required to submit its annual report instead of retaining it on site, may reduce the frequency of reporting to annual and/or be allowed to maintain the annual report on site if all of the following conditions are met:
  - a. for 1 full year (e.g., 2 semiannual or 4 quarterly reporting periods), the ongoing compliance status reports demonstrate that the affected emissions unit is in compliance with the relevant emission limit;
  - b. the permittee continues to comply with all applicable recordkeeping and monitoring requirements of 40 CFR Part 63, Subpart A and this permit; and
  - c. the appropriate Ohio EPA District Office or local air agency does not object to a reduced reporting frequency.

The frequency of submitting ongoing compliance status reports may be reduced if the following requirements are met:

- i. The permittee notifies the appropriate Ohio EPA District Office or local air agency in writing of its intentions to make such a change. The [local air agency or district office] may review information concerning the facility's previous performance history during the 5-year recordkeeping period prior to the intended change, or the recordkeeping period since the emission unit's compliance date, whichever is shorter. Records subject to review include performance test results, monitoring data, and evaluations of the permittee's conformance with emission limitations and work practice standards. If the permittee's request is disapproved, the appropriate Ohio EPA District Office or local air agency will notify the permittee in writing within 45 days after receiving notice. This notification will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.
- ii. If monitoring data show that the emissions unit is not in compliance with the relevant emission limit, the frequency of reporting shall revert to semiannual, and the permittee shall state this exceedance in the ongoing compliance status report for the next reporting period. After demonstrating ongoing compliance

with the relevant emission limit for another full year, the permittee may again request approval to reduce the reporting frequency.

7. The permittee shall submit a notification of construction or reconstruction as soon as practicable before the construction or reconstruction has commenced to the appropriate Ohio EPA District Office or local air agency which includes the following:
  - a. the permittee's name, title, and address;
  - b. the address (i.e., physical location) or proposed address of the affected emissions unit if different from the permittee's;
  - c. notification of intention to construct or make any physical or operational changes to an affected emissions unit that may meet or has been determined to meet the criteria for a reconstruction as defined in 40 CFR Part 63.2;
  - d. an identification of 40 CFR Part 63, Subpart N as the basis for the notification;
  - e. the expected commencement and completion dates of the construction or reconstruction;
  - f. the anticipated date of (initial) startup;
  - g. the type of process operation to be performed (hard or decorative chromium electroplating or chromium anodizing);
  - h. a description of the air pollution control technique to be used to control emissions, such as preliminary design drawings and design capacity if an add-on air pollution control device is used; and
  - i. an estimate of emissions based on engineering calculations and vendor information on control device efficiency, expressed in units consistent with the emissions limits of 40 CFR Part 63, Subpart N (Calculations of emission estimates should be in sufficient detail to permit assessment of the validity of the calculations.).
8. If a reconstruction is to occur, the permittee shall submit as soon as practicable the following information to the appropriate Ohio EPA District Office or local air agency:
  - a. a brief description of the affected emissions unit and the components to be replaced;

McC

PTI /

Emissions Unit ID: **P001**

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- b. a brief description of the present and proposed emission control technique;
  - c. an estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new emissions unit;
  - d. the estimated life of the affected emissions unit after the replacements; and
  - e. a discussion of any economic or technical limitations the emissions unit may have in complying with relevant standards or other requirements after proposed replacements (The discussion shall be sufficiently detailed to demonstrate to the appropriate Ohio EPA District Office or local air agency satisfaction that the technical or economic limitations affected the emissions unit ability to comply with the relevant standard and how they do so.).
9. In accordance with paragraph A.2.b. of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports to the Director (the appropriate Ohio EPA District Office or local air agency) which includes the following information for this emissions unit:
- a. An identification of each day during which the emissions of an individual HAP from the facility exceeded 1650 lbs and the actual monthly emissions of the individual HAP for each such month.
10. The permittee shall submit annual reports to the Director (appropriate District Office or local air agency) which specify the total and individual HAPs emissions on a facility-wide basis. These reports shall be submitted by January 31 of each calendar year.

#### **E. Testing Requirements**

1. Performance test results shall be documented in complete test reports that contain the following information:
  - a. a brief process description;
  - b. sampling location description(s);
  - c. a description of sampling and analytical procedures and any modifications to standard

McC

PTI /

Emissions Unit ID: P001

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- procedures;
- d. test results;
- e. quality assurance procedures and results;
- f. records of operating conditions during testing, preparation of standards, and calibration procedures;
- g. raw data sheets for field sampling and field and laboratory analyses;
- h. documentation of calculations; and
- i. any other information required by the test method.

The test plan shall be made available to the appropriate Ohio EPA District Office or local air agency prior to testing, if requested.

The results of tests conducted prior to December 1991, in which Method 306A was used to demonstrate the performance of a control technique, are not acceptable.

2. If the permittee conducts performance testing at startup to obtain a permit to install, the results of such testing may be used to demonstrate compliance if:
  - a. The test methods and procedures identified in this permit were used during the performance test.
  - b. The performance test was conducted under representative operating conditions.
  - c. The performance test report contains the elements of paragraph 1.a. through 1.i. in this section.
  - d. The permittee has sufficient data to establish the operating parameter value that corresponds to compliance as required for continuous compliance monitoring.
3. The permittee shall use the following test methods to conduct an initial performance test:



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baths shall be measured using Method 306B.

5. The permittee shall measure the pressure drop across the add-on air pollution control device in accordance with the following guidelines:
  - a. Pressure taps shall be installed at any of the following locations:
    - i. At the inlet and outlet of the control system. The inlet tap should be installed in the ductwork just prior to the control device and the corresponding outlet pressure tap should be installed on the outlet side of the control device prior to the blower or on the downstream side of the blower.
    - ii. On each side of the packed bed within the control system or on each side of each mesh pad within the control system.
    - iii. On the front side of the first mesh pad and back side of the last mesh pad within the control system.
  - b. Pressure taps shall be sited at locations that are:
    - i. As free from pluggage as possible and away from any flow disturbances such as cyclonic demisters.
    - ii. Situated such that no air infiltration at the measurement site will occur that could bias the measurement.
  - c. Pressure taps shall be constructed of either polyethylene, polybutylene, or other nonreactive materials.
  - d. Nonreactive plastic tubing shall be used to connect the pressure taps to the device used to measure pressure drop.
  - e. Any of the following pressure gauges can be used to monitor pressure drop: a magnehelic gauge, an included manometer, or a "U" tube manometer.
  - f. Prior to connecting any pressure lines to the pressure gauge(s), each gauge shall be zeroed. No calibration of the pressure gauges is required.

6. The permittee shall measure the velocity pressure at the inlet to an add-on air pollution control device to establish the site-specific velocity pressure as follows:
  - a. Locate a velocity traverse port in a section of straight duct that connects the hooding on the plating tank or tanks with the control device. The port shall be located as close to the control system as possible, and shall be placed a minimum of 2 duct diameters downstream and 0.5 diameter upstream of any flow disturbance such as a bend, expansion, or contraction. If 2.5 diameters of straight duct work does not exist, locate the port 0.8 of the duct diameter downstream and 0.2 of the duct diameter upstream from any flow disturbance.
  - b. A 12-point velocity traverse of the duct to the control device shall be conducted along a single axis according to Method 2 (40 CFR part 60, appendix A) using an S-type Pitot tube measurement of the barometric pressure and duct temperature at each traverse point is not required, but is suggested. Mark the S-type pitot tube as specified in Method 1 (40 CFR part 60, appendix A) with 12 points. Measure the velocity pressure (delta p) values for the velocity points and record. Determine the square root of the individual velocity point delta p values and average. The point with the square root value that comes closest to the average square root value is the point of average velocity. The delta p value measured for this point during the performance test will be used as the reference for future monitoring.
  
7. Compliance with the emission limitation in section A.1 of these terms and conditions shall be determined in accordance with the following method:
  - 7.a Emission Limitation-  
not allowing the surface tension of the electroplating or anodizing bath to exceed 45 dynes per centimeter (3.1 E-3 pound-force per foot) at any time during operation of the tank  
  
Applicable Compliance Method-  
  
Performance tests were conducted on June 18, 1997 with results showing surface tension measurement less than 45 dynes/cm. Method 306B, "Surface Tension Measurement and Recordkeeping for Tanks Used at Decorative Chromium Electroplating and Anodizing Facilities," shall be used to measure the surface tension of electroplating and anodizing baths. Ongoing compliance shall be based upon the established operating parameters for the wetting agent-type fume suppressant.

McC

PTI

Issued: To be entered upon final issuance

Emissions Unit ID: P001

7.b Emission Limitation-  
4.5 E-5 ton/yr chromium emissions

Applicable Compliance Method-

Compliance shall be based upon:

- i. multiplying the the chromium compound emission factor of 0.00075 grain chromium/hr/ft<sup>2</sup> (AP-42 Chapter 12, Table 12.20-2) by the surface area of the chromium anodizing tank;
- ii. multiplying the product in (i) by the conversion factor of 1 lb/7000 grains;
- iii. multiplying (ii) by 8760 hr/yr;
- iv. dividing (iii) by 2000 lbs/ton.

7.c Emission Limitation-  
0.551 lb/hr of particulates

Applicable Compliance Method-

Compliance shall be based on

- (i) multiplying the particulate emission factor of 0.0016 grain particulate/hr-ft<sup>2</sup> (AP-42 Chapter 12, Table 12.20-2) by the surface area of the chromium anodizing tank ;
- (ii) multiplying the product in (i) by the conversion factor of 1 lb/7000 grains.

If required, compliance with this mass emission limitation shall be based upon testing in accordance with Method 5 of 40 CFR, Appendix A, and the procedures specified in OAC rule 3745-17-03.

7.d Emission Limitation-  
20% opacity, as a 6-minute average, except as provided by the rule

Applicable Compliance Method-

If required, compliance shall be demonstrated through visible emissions observations performed in accordance with Method 9 of 40 CFR 60, Appendix A, and the procedures

specified in OAC rule 3745-17-03.

- 7.e Emission Limitation  
2.41 ton/year particulates

Applicable Compliance Method-

The 2.4 tons/yr limitation was developed by multiplying the 0.551 lb/hr limitation by the maximum annual operating hours of 8760 and dividing by 2000 lbs/ton. Therefore provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limit.

- 7.f Emission Limitation-  
Individual HAP emissions shall not exceed 0.825 tons/month (1650 lbs/month) from entire facility.

Applicable Compliance Method-

Compliance shall be based upon the record keeping requirements as specified in section C.1. of the terms and conditions of this PTI and shall be the sum of the monthly individual HAPs emissions for the entire facility which presently includes emission units: K001, Paint Booth No. 1; K002, Paint Booth No. 2; P001, Aluminum anodizing; P002, Cadmium Plating; P003, Booting Operation; P005, Miscellaneous cleaning of Parts and Guns; L007, #1 engineering Thinner Tank; L008, #2 Subassembly Thinner Tank; L009, #3 Repair Department Thinner Tank and; L010, Open Top Methylene chloride Vapor Degreaser.

- 7.g Emission Limitation-  
Total HAPs emissions shall not exceed 2.075tons/month (4150 lbs/month) from all emission units.

Applicable Compliance Method-

Compliance shall be based upon the record keeping requirements as specified in section C.1. of the terms and conditions of this PTI and shall be the sum of the monthly HAPs emissions for the entire facility which presently includes emission units: K001, Paint Booth No. 1; K002, Paint Booth No. 2; P001, Aluminum anodizing; P002, Cadmium Plating; P003, Booting Operation; P005, Miscellaneous cleaning of Parts and Guns; L007, #1 engineering Thinner Tank; L008, #2 Subassembly Thinner Tank; L009, #3 Repair Department Thinner and; L010, Open Top Methylene chloride Vapor Degreaser.

**F. Miscellaneous Requirements**

**McC**

**PTI**

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Emissions Unit ID: **P001**

1. The terms and conditions in sections A, B, C, D and E of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.

McC

PTI

Emissions Unit ID: P002

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**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>	OAC rule 3745-35-07(B) Synthetic Minor
P002 - Cadmium Plating	OAC rule 3745-31-05(A)(3)	
	OAC rule 3745-17-11(B)(1)	
	OAC rule 3745-17-07(A)(1)	

McC

PTI

Issued: To be entered upon final issuance

Emissions Unit ID: P002

Applicable Emissions  
Limitations/Control Measures

3.8 X 10E-4 lb/hr, 0.28 ton/month,  
3.32 lbs/yr cadmium (HAP)

1.3 X 10E-2 lb/hr, 9.50 lbs/month,  
114.06 lbs/yr cyanide (HAP)

2.2 X 10E-2 lb/hr, 16.10 lbs/month,  
193.25 lbs/yr hydrogen chloride

20% opacity as a six-minute  
average

The requirements of this rule also  
include compliance with the  
requirements of OAC rule  
3745-17-11(B)(1) and OAC rule  
3745-17-07(A)(1)

0.551 lb/hr and 2.41ton/yr  
particulates

20% opacity as a six-minute  
average.

See A.2.a

**2. Additional Terms and Conditions**

- 2.a** The usage\* of Hazardous Air Pollutants (HAPS), as identified in Section 112(b) of Title III of the Clean Air Act, from this facility i.e., K001, K002, L007, L008, L009, L010, P002, P003, and P005, shall not exceed 0.825 ton/month (1650 lbs/month) for any

McC

PTI

Emissions Unit ID: **P002**

**Issued: To be entered upon final issuance**

individual HAP and 2.075 tons/month (4150 lbs/month) for any combination of HAPs.

\*This assumes the HAPs emitted are the same as the amount of HAPs used since all HAPs used evaporate.

**B. Operational Restrictions**

1. The pressure drop across the scrubber shall be continuously maintained at a value of not less than 2 inches of water at all times while the emissions unit is in operation.
2. The scrubber water flow rate shall be continuously maintained at a value of not less than 30 gallons per minute at all times while the emissions unit is in operation.

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall maintain monthly records of the following information:
  - a. The total individual HAPs emissions, (cadmium, cyanide, and hydrogen chloride), in pounds per month, from P002.
  - b. The total combined HAPs emissions,(cadmium, cyanide, and hydrogen chloride), in pounds per month, from P002.
2. The permittee shall properly install, operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

- a. The pressure drop across the scrubber, in inches of water, on a once/shift basis.
- b. The scrubber water flow rate, in gallons per minute, on a once/shift basis.
- c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

**D. Reporting Requirements**

1. In accordance with paragraph A.2.b. of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports to the Director (the appropriate Ohio EPA District Office or local air agency) which includes the following information for this emissions unit:
  - a. An identification of each day during which the emissions of an individual HAP from the facility exceeded 1650 lbs and the actual monthly emissions of the individual HAP for each such month.
  - b. An identification of each month during which the emissions of combined HAPs from the facility exceeded 4150 lbs and the actual monthly emissions or combined HAPs for each such month.
  - c. Periods of time during which the static pressure drop across the scrubber was not maintained at or above 2 inches of water.
  - d. Periods of time during which the scrubber water flow rate was not maintained at or above the required level.

These reports shall include a description of the deviation, as well as the corrective actions that were taken to achieve compliance.

2. The permittee shall submit annual reports to the Director (appropriate District Office or local air agency) which specify the total and individual HAPs emissions on a facility-wide basis. These reports shall be submitted by January 31 of each calendar year.

**E. Testing Requirements**

1. Compliance with the emission limitation in section A.1 of these terms and conditions shall be determined in accordance with the following method:
  - a. Emission Limitation-  
3.8 X 10E-4 lb/hr cadmium emissions  
  
Applicable Compliance Method-  
Compliance shall be based upon:

McC

PTI

Emissions Unit ID: P002

**Issued: To be entered upon final issuance**

- i. multiplying the AP-42 emission factor in Table 12.20-4 (7/96) of  $1.7 \times 10^{-6}$  gdsf by the exhaust rate of 25,000 acfm;
- ii. multiplying the result in (i) by 60 min/hr;
- iii. dividing the result in (ii) by 7000 grains/lb.

If required, compliance with this mass emission limitation shall be based upon testing in accordance with Method 29 of 40 CFR 60, Appendix A

- b. Emission Limitation-  
0.28 lb/month cadmium emissions

Applicable Compliance Method-

- i. multiplying the AP-42 emission factor in Table 12.20-4 (7/96) of  $1.7 \times 10^{-6}$  gdsf by the exhaust rate of 25,000 acfm;
- ii. multiplying the result in (i) by 60 min/hr;
- iii. dividing the result in (ii) by 7000 grains/lb;
- iv. multiplying the result in (iii) by the hours of operation each month.

- c. Emission Limitation-  
3.32 lbs/yr cadmium emissions

Applicable Compliance Method-

Compliance shall be the sum of the monthly cadmium emissions for the calendar year.

- d. Emission Limitation-  
 $1.3 \times 10^{-2}$  lb/hr cyanide emissions

Applicable Compliance Method-

- i. multiplying the AP-42 emission factor in Table 12.20-4 (7/96) of  $5.9 \times 10^{-4}$  gdsf by the exhaust rate of 25,000 acfm;
- ii. multiplying the result in (i) by 60 min/hr;
- iii. dividing the result in (ii) by 7000 grains/lb.

If required, compliance with this mass emission limitation shall be based upon testing in accordance with Method of 40 CFR 60, Appendix A

- e. Emission Limitation-  
9.60 lbs/month cyanide emissions  
  
Applicable Compliance Method-  
Compliance shall be based on:
  - i. multiplying the AP-42 emission factor in Table 12.20-4 (7/96) of  $5.9 \times 10^{-5}$  gdsf by the exhaust rate of 25,000 acfm;
  - ii. multiplying the result in (i) by 60 min/hr;
  - iii. multiplying the result in (ii) by the number of hours of operation/month;
  - iv. dividing the result in (iii) by 7000 grains/lb.
  
- f. Emission Limitation-  
115.11 lbs/yr cyanide emissions  
  
Applicable Compliance Method-  
Compliance shall be the sum of the monthly cyanide emissions for the calendar year.
  
- g. Emission Limitation-  
 $2.2 \times 10^{-2}$  lb/hr hydrogen chloride emissions

McC

PTI

Emissions Unit ID: **P002**

**Issued: To be entered upon final issuance**

Applicable Compliance Method-

Compliance shall be based on:

- i. multiplying the emission factor of  $1.0 \times 10^{-4}$  gr/dscf, which was developed by the permittee through a mass balance approach, by the exhaust rate of 25,000 acfm;
- ii. multiplying the result in (i) by 60 min/hr;
- iii. dividing the result in (i) by 7000 grains/lb.

If required, compliance with this mass emission limitation shall be based upon testing in accordance with Method 26 of 40 CFR 60, Appendix A

- h. Emission Limitation-  
16.10 lbs/month hydrogen chloride emissions

Applicable Compliance Method-

Compliance shall be based on:

- i. multiplying the emission factor of  $1.0 \times 10^{-4}$  gr/dscf, which was developed by the permittee through a mass balance approach, by the exhaust rate of 25,000 acfm;
- ii. multiplying the result in (i) by 60 min/hr;
- iii. dividing the result in (i) by 7000 grains/lb.
- iv. multiplying the result in (iii) by the number of hours of operation/month;

- i. Emission Limitation-  
193.25 lbs/year hydrogen chloride emissions

Applicable Compliance Method-

Compliance shall be the sum of the monthly hydrogen chloride emissions for the calendar year.

- j. Emission Limitation-  
0.551 lb/hr of particulates

Applicable Compliance Method-

Compliance shall be based on

- i. multiplying the emission factor of 1.7 lb/1000 gallon of scrubber water, determined by use of the PM drift calculation (AP-42 13.4 (1/95)), by the gallons per minute

McC

PTI

Emissions Unit ID: **P002**

**Issued: To be entered upon final issuance**

(78 gpm);

- ii. multiply the product in (i) by 24000 ppm (AP-42 Table 13.4.2 (1/95));
- iii. multiplying the result in (ii) by 60 min/hr;

If required, compliance with this mass emission limitation shall be based upon testing in accordance with Method 5 of 40 CFR 60, Appendix A, and the procedures specified in OAC rule 3745-17-03.

- k. Emission Limitation  
2.41 ton/year particulates

Applicable Compliance Method-

The 2.4 tons/yr limitation was developed by multiplying the 0.551 lb/hr limitation by the maximum annual operating hours of 8760 and dividing by 2000 lbs/ton. Therefore provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limit.

- l. Emission Limitation-  
20% opacity, as a 6-minute average, except as provided by the rule

Applicable Compliance Method-

If required, compliance shall be demonstrated through visible emissions observations performed in accordance with Method 9 of 40 CFR 60, Appendix A, and the procedures specified in OAC rule 3745-17-03.

- m. Emission Limitation-  
Individual HAP emissions shall not exceed 0.825 tons/month (1650 lbs/month) from all emissions units.

Applicable Compliance Method-

Compliance shall be based upon the record keeping requirements as specified in section C.1. of the terms and conditions of this PTI and shall be the sum of the monthly individual HAPs emissions for the entire facility which presently includes emission units: K001, Paint Booth No. 1; K002, Paint Booth No. 2; P001, Aluminum anodizing; P002, Cadmium Plating; P003, Booting Operation; P005, Miscellaneous cleaning of Parts and Guns; L007, #1 engineering Thinner Tank; L008, #2 Subassembly Thinner Tank; L009, #3 Repair Department Thinner Tank and; L010, Open Top Methylene chloride Vapor

McC

PTI

Emissions Unit ID: P003

Issued: To be entered upon final issuance

Degreaser.

- n. Emission Limitation-  
Total HAPs emissions shall not exceed 2.075tons/month (4150 lbs/month) from all emission units.

Applicable Compliance Method-

Compliance shall be based upon the record keeping requirements as specified in section C.1. of the terms and conditions of this PTI and shall be the sum of the monthly HAPs emissions for the entire facility which presently includes emission units: K001, Paint Booth No. 1; K002, Paint Booth No. 2; P001, Aluminum anodizing; P002, Cadmium Plating; P003, Booting Operation; P005, Miscellaneous cleaning of Parts and Guns; L007, #1 engineering Thinner Tank; L008, #2 Subassembly Thinner Tank; L009, #3 Repair Department Thinner and; L010, Open Top Methylene chloride Vapor Degreaser.

**F. Miscellaneous Requirements**

- 1. The terms and conditions in sections A, B, C, D and E of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.

**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>	Propeller Blades	<u>Applicable Rules/Requirements</u>
P003 - Booting Operation to Bond Rubber Booting Material to		OAC rule 3745-31-05(A)(3)

McC

PTI

Emissions Unit ID: P003

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OAC rule 3745-35-07(B)  
Synthetic Minor Restriction

Applicable Emissions  
Limitations/Control Measures

OAC rule 3745-21-07(G)(2)

Total Organic Compounds-  
1.10 lbs/hr; 17.6 lbs/day; 1.94 TPY

See A.2.a

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

- 2.a** The usage\* of Hazardous Air Pollutants (HAPS), as identified in Section 112(b) of Title III of the Clean Air Act, from this facility i.e., K001, K002, L007, L008, L009, L010, P002, P003, and P005, shall not exceed 0.825 ton/month (1650 lbs/month) for any individual HAP and 2.075 tons/month (4150 lbs/month) for any combination of HAPs.

\*This assumes the HAPs emitted are the same as the amount of HAPs used since all HAPs used evaporate.

**B. Operational Restrictions**

None

**C. Monitoring and/or Recordkeeping Requirements**

1. The 1.10 lbs/hr limitation was established for PTI purposes to reflect the potential to emit for this

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emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.

2. The permittee shall collect and record the following information each day for this emissions unit:
  - a. The company identification for each adhesive and activator solvent, employed.
  - b. The number of gallons of each adhesive employed.
  - c. The organic compound content of each adhesive, in pounds per gallon.
  - d. The total organic compound emission rate for all adhesives, in pounds, (b) X (c).
  - e. The number of gallons of each activator solvent employed.
  - f. The organic compound content of each activator solvent, in pounds per gallon.
  - g. The total organic compound emission rate for all activator solvents, in pounds, (e) X (f).
  - h. The total organic compound emission rate, in pounds, the sum of (d) and (g).
  
3. The permittee shall collect and record the following information each month for the purpose of determining the HAP emissions from this emissions unit:
  - a. The name and identification number of each adhesive and/or activator solvent, as applied.
  - b. The individual Hazardous Air Pollutant\* (HAP) content for each HAP of each adhesive and activator solvent in pounds of individual HAP per gallon of adhesive or activator solvent, as applied.
  - c. The total combined Hazardous Air Pollutant (HAP) content for each HAP of each adhesive and activator solvent in pounds of combined HAPs per gallon of coating, as applied (sum all the individual HAP contents from b).

\*A listing of the Hazardous Air Pollutants (HAPs) can be found in Section 112 (b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or

**McCauley Propeller Systems**  
**PTI**  
**Issue**

**Facility ID: 0857171342**

Emissions Unit ID: **P003**

cleanup materials. This information does not have to be kept on a line-by-line basis:

McC

PTI

Issued: To be entered upon final issuance

Emissions Unit ID: P003

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

1. In accordance with paragraph A.2.b. of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports to the Director (the appropriate Ohio EPA District Office or local air agency) which includes the following information for this emissions unit:
  - a. An identification of each day during which the organic compound emission rate from the adhesive and activator solvent materials exceeded 17.6 pounds per day, and the actual average organic compound emissions for each such day.
  - b. An identification of each day during which the emissions of an individual HAP from the facility exceeded 1650 lbs and the actual monthly emissions of the individual HAP for each such month.
  - c. An identification of each month during which the emissions of combined HAPs from the facility exceeded 4150 lbs and the actual monthly emissions or combined HAPs for each such month.

These reports shall include a description of the deviation, as well as the corrective actions that were taken to achieve compliance.

2. The permittee shall submit annual reports to the Director (appropriate District Office or local air agency) which specify, for this emissions unit, the following information for the previous calendar year:
  - a. The total gallons of adhesive and activator solvent employed.
  - b. Total annual OC emissions.

These reports shall be submitted by January 31 of each year.

3. The permittee shall submit annual reports to the Director (appropriate District Office or local air agency) which specify the total and individual HAPs emissions on a facility-wide basis. These reports shall be submitted by January 31 of each calendar year.

#### **E. Testing Requirements**

McC

PTI

Emissions Unit ID: P003

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1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation-  
1.10 lbs/hr organic compounds

Applicable Compliance Method-  
Compliance shall be determined by multiplying the maximum quantity of glue employed by the % OC by weight and adding this value to the maximum amount of MPK employed per hour.

- b. Emission Limitation-  
17.6 lbs/day organic compounds

Applicable Compliance Method-  
Compliance shall be based upon the record keeping specified in (C)(1).

- c. Emission Limitation-  
1.94 TPY organic compounds

Applicable Compliance Method-  
Compliance shall be based upon the record keeping requirements as specified in section C.1., and shall be the sum of the daily OC emission rates for the calendar year.

- d. Emission Limitation-  
Individual HAP emissions shall not exceed 0.825 tons/month (1650 lbs/month) from entire facility.

Applicable Compliance Method-  
Compliance shall be based upon the record keeping requirements as specified in section C.3. of the terms and conditions of this PTI and shall be the sum of the monthly individual HAP emissions for the entire facility which presently includes emission units: K001, Paint booth No. 1; K002, Paint Booth No. 2; P001, Aluminum Anodizing; P002, Cadmium Plating; P003; Booting Operation; P005, Miscellaneous Cleaning of Parts and Guns; L007, #1 Engineering Thinner Tank; L008, #2 Subassembly Thinner Tank; L009, #3

McC

PTI /

Emissions Unit ID: **P003**

**Issued: To be entered upon final issuance**

Repair Department Thinner Tank and; L010, Open Top Methylene Chloride Vapor Degreaser.

- e. Emission Limitation-  
Total HAP emissions shall not exceed 2.075 tons/month (4150 lbs/month) from all emission units.

Applicable Compliance Method-

Compliance shall be based upon the record keeping requirements as specified in section C.3. of the terms and conditions of this permit shall be the sum of the monthly HAPs emissions from the entire facility which presently includes emission units: K001, Paint booth No. 1; K002, Paint Booth No. 2; P001, Aluminum Anodizing; P002, Cadmium Plating; P003, Booting Operation; P005, Miscellaneous Cleaning of Parts and Guns; L007, #1 Engineering Thinner Tank; L008, #2 Subassembly Thinner Tank; L009, #3 Repair Department Thinner Tank and; L010, Open Top Methylene Chloride Vapor Degreaser.

**F. Miscellaneous Requirements**

1. The terms and conditions in sections A, B, C, D and E of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.
2. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

McC

PTI

Emissions Unit ID: P004

Issued: To be entered upon final issuance

**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>
P004 - Rust Preventative Operation in receiving/inspection area or in Deburr Area, to inhibit rust on steel parts after machining operations or for long term storage in the parts crib.	OAC rule 3745-31-05(A)(3) OAC rule 3745-21-07(G)(2)	1.3 lbs/hr, 31.2 lbs/day, and 2.5 ton/yr organic compounds  The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3)

**2. Additional Terms and Conditions**

- 2.a The 1.30 lb/hr limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.

**B. Operational Restrictions**

None.

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each day for this emissions unit:

McC

PTI /

Emissions Unit ID: **P004**

**Issued: To be entered upon final issuance**

- a. The company identification for each rust preventative fluid, employed.
- b. The number of gallons of rust preventative fluid.
- c. The organic compound content of each rust preventative fluid, in pounds per gallon.
- d. The total organic compound emission rate for all rust preventative fluids, in pounds, (b) X (c).

**D. Reporting Requirements**

1. In accordance with paragraph A.2.b.of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports to the Director (the appropriate Ohio EPA District Office or local air agency) which includes and an identification of each day during which the organic compound emission rate from the adhesive and activator solvent materials exceeded 31.2 pounds per day, and the actual average organic compound emissions for each such day.
2. The permittee shall submit annual reports to the Director (appropriate District Office or local air agency) which specify, for this emissions unit, the following information for the previous calendar year:
  - a. The total gallons of coating and clean-up material used.
  - b. Total annual OC emissions.

These reports shall be submitted by February 15 of each year.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation-  
1.30 lbs/hr organic compounds  
  
Applicable Compliance Method-

McC

PTI /

Emissions Unit ID: **P004**

**Issued: To be entered upon final issuance**

Compliance shall be determined by multiplying the maximum quantity of rust preventative fluid (petroleum naphtha) employed each hour by the density of the fluid (7.42 lbs/gallon). Petroleum naphtha is assumed to be 100% OC.

- b. Emission Limitation-  
31.2 lbs/day organic compounds

Applicable Compliance Method-  
Compliance shall be based upon the record keeping specified in (C)(1).

- c. Emission Limitation-  
2.50 TPY organic compounds

Applicable Compliance Method-  
Compliance shall be based upon the record keeping requirements as specified in section C.1., and shall be the sum of the daily OC emission rates for the calendar year.

**F. Miscellaneous Requirements**

1. The terms and conditions in sections A, B, C, D and E of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.
2. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

**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>
P005 - Miscellaneous Solvent Use for cleaning of small assembly parts and hand wiping throughout the facility but, in most cases, in the inspection stations and assembly area.	OAC rule 3745-31-05(A)(3)	1.40 lb/hr, 22.4 lbs/day, and 1.34 TPY organic compounds (OC)
	OAC rule 3745-21-07(G)(2)	See 2.a
	OAC rule 3745-35-07(B) Synthetic Minor Restriction	See 2.c

**2. Additional Terms and Conditions**

- 2.a The limit based on this rule is less stringent than the limit established pursuant to OAC rule 3745-31-05.
- 2.b The 1.40 lb/hr limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.
- 2.c The usage\* of Hazardous Air Pollutants (HAPS), as identified in Section 112(b) of Title III of the Clean Air Act, from this facility i.e., K001, K002, L007, L008, L009, L010, P002, P003, and P005, shall not exceed 0.825 ton/month (1650 lbs/month) for any individual HAP and 2.075 tons/month (4150 lbs/month) for any combination of HAPS.

\*This assumes the HAPs emitted are the same as the amount of HAPs used since all HAPs used evaporate.

**McC**

**PTI /**

**Issued: To be entered upon final issuance**

Emissions Unit ID: **P005**

**B. Operational Restrictions**

1. The permittee shall collect and record the following information each day for this emissions unit:

McC

PTI

Emissions Unit ID: **P005**

**Issued: To be entered upon final issuance**

- a. The company identification for each miscellaneous solvent employed for small assembly parts cleaning and hand wiping.
- b. The number of gallons of miscellaneous solvent employed.
- c. The organic compound content of each miscellaneous solvent employed, in pounds per gallon.
- d. The total organic compound emission rate for all miscellaneous solvent employed, in pounds, (b) X (c).

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each day for this emissions unit:
  - a. The company identification for each miscellaneous solvent, employed.
  - b. The number of gallons of miscellaneous solvent, employed.
  - c. The organic compound content of each miscellaneous solvent employed, in pounds per gallon.
  - d. The total organic compound emission rate for all miscellaneous solvents employed for cleaning of paint guns and parts, in pounds, (b) X (c).
2. The permittee shall collect and record HAP emission information each month for the entire facility (including, but not limited to emissions units K001, K002, P001, P002, P003, P005, L007, L008, L009, and L010). For the purpose of determining the HAP emissions from P005, the permittee shall collect and record the following information each month:
  - a. The company identification for miscellaneous solvent employed for the cleaning of paint guns and parts.
  - b. The individual Hazardous Air Pollutant (HAP)\* content for each HAP of each miscellaneous cleaning solvent, in pounds of individual HAP per gallon, employed.

- c. The total combined HAP content of each miscellaneous paint gun and part cleaning solvent, in pounds of combined HAPS per gallon, as applied (the sum of all the individual HAP contents from (b)).
- d. The number of gallons of each miscellaneous paint gun and part cleaning solvent employed.

McC

PTI

Emissions Unit ID: **P005**

**Issued: To be entered upon final issuance**

- e. The total individual HAP emissions for each HAP from all miscellaneous paint gun and cleaning solvent material employed, in pounds or tons per month (for each HAP, the sum of (b) times (e) for each miscellaneous paint gun and parts cleaning solvent.

\*A listing of the Hazardous Air Pollutants (HAPs) can be found in Section 112 (b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. Material Safety Data Sheets typically include the HAP information.

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

1. In accordance with paragraph A.2.b.of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports to the Director (the appropriate Ohio EPA District Office or local air agency) which includes the following information for this emissions unit:

- a. An identification of each day during which the organic compound emission rate from the miscellaneous cleaning solvent for paint guns and parts exceeded 22.4 lbs/day and the average organic compound emissions for each such day.
- b. An identification of each day during which the emissions of an individual HAP from the facility exceeded 1650 lbs and the actual monthly emissions of the individual HAP for each such month.
- c. An identification of each month during which the emissions of combined HAPs from the facility exceeded 4150 lbs and the actual monthly emissions or combined HAPs for each such month.

These reports shall include a description of the deviation, as well as the corrective actions that were taken to achieve compliance.

2. The permittee shall submit annual reports to the Director (appropriate District Office or local air agency) which specify, for this emissions unit, the following information for the previous calendar year:

- a. The total gallons of miscellaneous cleaning solvent for paint guns and parts.
- b. Total annual OC emissions.

McC

PTI /

Emissions Unit ID: **P005**

**Issued: To be entered upon final issuance**

These reports shall be submitted by January 31 of each year.

3. The permittee shall submit annual reports to the Director (appropriate District Office or local air agency) which specify the total and individual HAPs emissions on a facility-wide basis. These reports shall be submitted by January 31 of each calendar year.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation-  
1.40 lbs/hr organic compounds  
  
Applicable Compliance Method-  
Compliance shall be determined by multiplying the average quantity of each miscellaneous solvent material employed for the cleaning of paint guns and parts each hour by the density of the fluid (lbs/gallon) and the percentage OC. The total for all miscellaneous solvent material employed shall be summed.
  - b. Emission Limitation-  
22.4 lbs/day organic compounds  
  
Applicable Compliance Method-  
Compliance shall be based upon the record keeping specified in (C)(1).
  - c. Emission Limitation-  
1.34 TPY organic compounds  
  
Applicable Compliance Method-  
Compliance shall be based upon the record keeping requirements as specified in section C.1. and shall be the summation
  - d. Emission Limitation-  
Individual HAP emissions shall not exceed 0.825 tons/month (1650 lbs/month) from entire facility.

Applicable Compliance Method-

Compliance shall be based upon the record keeping requirements as specified in section C.2. of the terms and conditions of this PTI and shall be the sum of the monthly individual HAP emissions for the entire facility which presently includes emission units: K001, Paint booth No. 1; K002, Paint Booth No. 2; P001, Aluminum Anodizing; P002, Cadmium Plating; P003; P004, Rust Preventative, Booting Operation; P005, Miscellaneous Cleaning of Parts and Guns; L007, #1 Engineering Thinner Tank; L008,#2 Subassembly Thinner Tank; L009, #3 Repair Department Thinner Tank and; L010, Open Top Methylene Chloride Vapor Degreaser.

e.. Emission Limitation-

Total HAP emissions shall not exceed 2.075 tons/month (4150 lbs/month) from all emission units.

Applicable Compliance Method-

Compliance shall be based upon the record keeping requirements as specified in section C.2. of the terms and conditions of this permit shall be the sum of the monthly HAPs emissions from the entire facility which presently includes emission units: K001, Paint booth No. 1; K002, Paint Booth No. 2; P001,Aluminum Anodizing; P002, Cadmium Plating; P003, Booting Operation; P005, Miscellaneous Cleaning of Parts and Guns; L007, #1 Engineering Thinner Tank; L008,#2 Subassembly Thinner Tank; L009, #3 Repair Department Thinner Tank and; L010, Open Top Methylene Chloride Vapor Degreaser.

**F. Miscellaneous Requirements**

1. The terms and conditions in sections A, B, C, D and E of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.
2. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

**McC**

**PTI /**

**Issued: To be entered upon final issuance**

Emissions Unit ID: **P005**

**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>
P006 - Soluble Cutting Oil Use for the CNC horizontal and vertical mills and lathes in the NC Department	OAC rule 3745-31-05(A)(3) OAC rule 3745-21-07(G)(2)	0.34 lb/hr, 8.16 lbs/day, and 0.64 TPY organic compounds (OC) See 2.a.

**2. Additional Terms and Conditions**

- 2.a The limit based on this rule is less stringent than the limit established pursuant to OAC rule 3745-31-05.
- 2.b The 0.34 lb/hr limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.

**B. Operational Restrictions**

1. The permittee shall collect and record the following information each day for this emissions unit:
  - a. The company identification for each soluble cutting oil, employed.
  - b. The number of gallons of soluble cutting oil.
  - c. The organic compound content of each soluble cutting oil, in pounds per gallon.

McC

PTI

Issued: To be entered upon final issuance

Emissions Unit ID: P006

- d. The total organic compound emission rate for all soluble cutting oils, in pounds, (b) X (c).

### C. Reporting Requirements

1. In accordance with paragraph A.2.b. of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports to the Director (the appropriate Ohio EPA District Office or local air agency) which includes the following information for this emissions unit:

- a. An identification of each day during which the organic compound emission rate from the adhesive and activator solvent materials exceeded 22.4 pounds per day, and the actual average organic compound emissions for each such day.

These reports shall include a description of the deviation, as well as the corrective actions that were taken to achieve compliance.

2. The permittee shall submit annual reports to the Director (appropriate District Office or local air agency) which specify, for this emissions unit, the following information for the previous calendar year:

- a. The total gallons of soluble cutting oil employed.
- b. Total annual OC emissions.

These reports shall be submitted by January 31 of each year.

### D. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation-  
0.34 lbs/hr organic compounds

Applicable Compliance Method-

Compliance shall be determined by multiplying the maximum quantity of soluble cutting oil employed each hour (lbs/hr) by the % OC/gallon (0.5%).

- b. Emission Limitation-  
8.16 lbs/day organic compounds

Applicable Compliance Method-  
Compliance shall be based upon the record keeping specified in (C)(1).

- c. Emission Limitation-  
0.64 TPY organic compounds

Applicable Compliance Method-  
Compliance shall be based upon the record keeping requirements as specified in section C.1., and shall be the sum of the daily OC emission rates for the calendar year.

**McC**

**PTI /**

**Issued: To be entered upon final issuance**

Emissions Unit ID: **P006**

**E. Miscellaneous Requirements**

1. The terms and conditions in sections A, B, C, D and E of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04096 Facility ID: 0857171342

FACILITY NAME McCauley Propeller Systems

FACILITY DESCRIPTION Cold Solvent Tanks, Methylene Chloride Degreaser, Soluble Cutting Oil Use, Rust Preventative Use, Booting Operations, Coating Operations, Miscellaneous Solvent Use, Chrome Plating, Anodizing CITY/TWP Vandalia

SIC CODE 3728 SCC CODE 40200101 EMISSIONS UNIT ID K001

EMISSIONS UNIT DESCRIPTION Paint Department Booth No 1

DATE INSTALLED 9/1978

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds	lbs/day	49.97	9.13	49.97	9.13
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? X YES NO

IDENTIFY THE AIR CONTAMINANTS: MEK

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04096 Facility ID: 0857171342

FACILITY NAME McCauley Propeller Systems

FACILITY DESCRIPTION Cold Solvent Tanks. Methvlene Chloride CITY/TWP Vandalia

Emissions Unit ID: P006

Use, Chrome Plating, Anodizing

SIC CODE 3728 SCC CODE 40200101 EMISSIONS UNIT ID K002

EMISSIONS UNIT DESCRIPTION Paint Department Booth No 2

DATE INSTALLED 9/78

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds	lbs/day	49.97	9.13	49.97	9.13
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? yes  
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? X YES NO

IDENTIFY THE AIR CONTAMINANTS: MEK

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04096 Facility ID: 0857171342

FACILITY NAME McCauley Propeller Systems

FACILITY DESCRIPTION Cold Solvent Tanks. Methvlene Chloride CITY/TWP Vandalia

Emissions Unit ID: P006

Use, Chrome Plating, Anodizing

SIC CODE 3728 SCC CODE 40100303 EMISSIONS UNIT ID L003

EMISSIONS UNIT DESCRIPTION No 1 Engineering Test Solvent Tank

DATE INSTALLED 9/78

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds	ton/month	0.07	0.84	0.07	0.84
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no  
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? YES x NO

IDENTIFY THE AIR CONTAMINANTS:

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04096 Facility ID: 0857171342

FACILITY NAME McCauley Propeller Systems

FACILITY DESCRIPTION Cold Solvent Tanks. Methvlene Chloride CITY/TWP Vandalia

Emissions Unit ID: P006

Use, Chrome Plating, Anodizing

SIC CODE 3728 SCC CODE 40100303 EMISSIONS UNIT ID L004

EMISSIONS UNIT DESCRIPTION No 2 Maintenance Department Solvent Tank

DATE INSTALLED 9/78

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds	ton/month	0.07	0.84	0.07	0.84
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? 40 CFR Part 63 Subpart T NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? YES no NO

IDENTIFY THE AIR CONTAMINANTS:

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04096 Facility ID: 0857171342

FACILITY NAME McCauley Propeller Systems

FACILITY DESCRIPTION Cold Solvent Tanks. Methvlene Chloride CITY/TWP Vandalia

Emissions Unit ID: P006

Use, Chrome Plating, Anodizing

SIC CODE 3728 SCC CODE 40100303 EMISSIONS UNIT ID L005

EMISSIONS UNIT DESCRIPTION No 3 Repair Department Solvent Tank

DATE INSTALLED 9/78

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds	ton/month	0.07	0.84	0.07	0.84
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no  
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? YES no NO

IDENTIFY THE AIR CONTAMINANTS:

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04096

Facility ID: 0857171342

FACILITY NAME McCauley Propeller Systems

FACILITY DESCRIPTION Cold Solvent Tanks. Methvlene Chloride CITY/TWP Vandalia

Emissions Unit ID: P006

Use, Chrome Plating, Anodizing

SIC CODE 3728

SCC CODE 40100303

EMISSIONS UNIT ID L006

EMISSIONS UNIT DESCRIPTION No 4 Subassembly Solvent Tank

DATE INSTALLED 9/78

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds	ton/month	0.07	0.84	0.07	0.84
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? 40 CFR Part 63

NESHAP?

PSD?

OFFSET POLICY?

Subpart T

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT?

\$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*?

YES

x

NO

IDENTIFY THE AIR CONTAMINANTS:

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04096 Facility ID: 0857171342

FACILITY NAME McCauley Propeller Systems

FACILITY DESCRIPTION Cold Solvent Tanks. Methvlene Chloride CITY/TWP Vandalia

Emissions Unit ID: P006

Use, Chrome Plating, Anodizing

SIC CODE 3728 SCC CODE 40100399 EMISSIONS UNIT ID L007

EMISSIONS UNIT DESCRIPTION No 1 Engineering Test Thinner Tank

DATE INSTALLED 9/78

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds	ton/month	0.09	1.18	0.09	1.18
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no  
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? YES x NO

IDENTIFY THE AIR CONTAMINANTS:

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04096

Facility ID: 0857171342

FACILITY NAME McCauley Propeller Systems

FACILITY DESCRIPTION Cold Solvent Tanks. Methvlene Chloride CITY/TWP Vandalia

Emissions Unit ID: **P006**

Use, Chrome Plating, Anodizing

SIC CODE 3728

SCC CODE 40100399

EMISSIONS UNIT ID L008

EMISSIONS UNIT DESCRIPTION No 2 Subassembly Thinner Tank

DATE INSTALLED 9/78

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds	ton/month	0.09	1.18	0.09	1.18
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS?

NESHAP?

PSD?

OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY?

no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT?

\$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*?

YES

x NO

IDENTIFY THE AIR CONTAMINANTS:

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04096 Facility ID: 0857171342

FACILITY NAME McCauley Propeller Systems

FACILITY DESCRIPTION Cold Solvent Tanks. Methvlene Chloride CITY/TWP Vandalia

Emissions Unit ID: P006

Use, Chrome Plating, Anodizing

SIC CODE 3728 SCC CODE 40100399 EMISSIONS UNIT ID L009

EMISSIONS UNIT DESCRIPTION No 3 Repair Department Thinner Tank

DATE INSTALLED 9/78

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds	ton/month	0.09	1.18	0.09	1.18
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no  
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? YES x NO

IDENTIFY THE AIR CONTAMINANTS:

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04096 Facility ID: 0857171342

FACILITY NAME McCauley Propeller Systems

FACILITY DESCRIPTION Cold Solvent Tanks. Methvlene Chloride CITY/TWP Vandalia

Emissions Unit ID: P006

Use, Chrome Plating, Anodizing

SIC CODE 3728 SCC CODE 40100224 EMISSIONS UNIT ID L010

EMISSIONS UNIT DESCRIPTION Open Top Methylene Chloride Vapor Degreaser - Dye Check Degreaser

DATE INSTALLED 4/85

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds	ton/ month	0.62	7.4	0.62	7.4
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? 40 CFR Part 63

NESHAP?

PSD?

OFFSET POLICY?

Subpart T

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? YES NO x

IDENTIFY THE AIR CONTAMINANTS:

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04096 Facility ID: 0857171342

FACILITY NAME McCauley Propeller Systems

FACILITY DESCRIPTION Cold Solvent Tanks. Methvlene Chloride CITY/TWP Vandalia

Emissions Unit ID: P006

Use, Chrome Plating, Anodizing

SIC CODE 3728 SCC CODE 30901038 EMISSIONS UNIT ID P001

EMISSIONS UNIT DESCRIPTION Aluminum Anodizing, chromic acid

DATE INSTALLED 1978

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	lb/hr	0.551	2.41	0.551	2.41
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Chromium			4.5 E-5		4.5 E-5

APPLICABLE FEDERAL RULES:

NSPS? 40 CFR Part 63 Subpart N NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? YES x NO

IDENTIFY THE AIR CONTAMINANTS:

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04096

Facility ID: 0857171342

FACILITY NAME McCauley Propeller Systems

FACILITY DESCRIPTION Cold Solvent Tanks. Methvlene Chloride CITY/TWP Vandalia

Emissions Unit ID: **P006**

Use, Chrome Plating, Anodizing

SIC CODE 3728

SCC CODE 30901052

EMISSIONS UNIT ID P002

EMISSIONS UNIT DESCRIPTION Cadmium Plating

DATE INSTALLED 1978

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other HAPS	ton/month	.04	0.15	.04	0.15

APPLICABLE FEDERAL RULES:

NSPS?

PSD?

OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT?

\$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? \_\_\_\_\_ YES x NO

IDENTIFY THE AIR CONTAMINANTS: \_\_\_\_\_

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04096 Facility ID: 0857171342

FACILITY NAME McCauley Propeller Systems

FACILITY DESCRIPTION Cold Solvent Tanks. Methvlene Chloride CITY/TWP Vandalia

Emissions Unit ID: P006

Use, Chrome Plating, Anodizing

SIC CODE 3728 SCC CODE 40188801 EMISSIONS UNIT ID P003

EMISSIONS UNIT DESCRIPTION Booting Operation to Bond Rubber Booting Material to Propeller Blades

DATE INSTALLED 9/78

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds	lbs/hr	1.10	1.94	1.10	1.94
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no  
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? YES x NO

IDENTIFY THE AIR CONTAMINANTS:

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04096 Facility ID: 0857171342

FACILITY NAME McCauley Propeller Systems

FACILITY DESCRIPTION Cold Solvent Tanks. Methvlene Chloride CITY/TWP Vandalia

Emissions Unit ID: P006

Use, Chrome Plating, Anodizing

SIC CODE 3728 SCC CODE 40188801 EMISSIONS UNIT ID P004

EMISSIONS UNIT DESCRIPTION Rust Preventative Operation

DATE INSTALLED 9/1978

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds	lb/hr	1.3	2.5	1.3	2.5
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no  
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? YES x NO

IDENTIFY THE AIR CONTAMINANTS:

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04096

Facility ID: 0857171342

FACILITY NAME McCauley Propeller Systems

FACILITY DESCRIPTION Cold Solvent Tanks. Methvlene Chloride CITY/TWP Vandalia

Emissions Unit ID: P006

Use, Chrome Plating, Anodizing

SIC CODE 3728

SCC CODE 40188801

EMISSIONS UNIT ID P005

EMISSIONS UNIT DESCRIPTION Miscellaneous Solvent Use for Paint Gun Cleaning and Hand Wiping

DATE INSTALLED 9/1978

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds	lb/hr	1.40	1.34	1.40	1.34
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS?

NESHAP?

PSD?

OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT?

\$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*?

YES

x

NO

IDENTIFY THE AIR CONTAMINANTS:



**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04096

Facility ID: 0857171342

FACILITY NAME McCauley Propeller Systems

FACILITY DESCRIPTION Cold Solvent Tanks, Methylene Chloride

CITY/TWP Vandalia

Emissions Unit ID: **P006**Plating, Anodizing

Please describe any hard copy information is being submitted with this recommendation (Please send hard copy information to Pam McGraner, DAPC Central Office - Air Quality Modeling and Planning):

Air Modeling

Please provide any additional permit specific notes as you deem necessary:

NONE

### Permit To Install Synthetic Minor Write-Up

#### Introduction:

McCauley Corporation is requesting a synthetic minor permit to limit HAP emissions below major threshold limits (25 TPY total HAPs and 10 TPY for individual HAPs). Potential emissions of HAPs are equal to 21.40 TPY total HAPs, 11.10 TPY individual HAPs, actual emissions equal 16.49 TPY total HAPS, 7.4 TPY individual HAP, and permit allowable is limited to 10 TPY for individual HAP and 25 TPY for total HAPs. The potential emissions are based on 8760 hr/yr. The actual emissions are based on permittee's requested hours of operation.

#### Source Description:

The emissions units include 2 paint booths (paints HAPs), 4 stoddard solvent cleaning tanks, 3 cold cleaners (solvents contain HAPs), soluble cutting oil, miscellaneous solvent use (contains HAPs), chromium anodizing (HAPs), and cadmium plating (HAPs), and methylene chloride vapor degreaser (HAP). The total HAPs emissions have been calculated as 16.49 ton/year. To allow for growth, the permit restricts emissions to 25 tons/yr or, more specifically 2.075 tons/month. The permit to install is written to limit the HAPs on a monthly basis in lieu of a rolling 12 month summation. This method of limiting the HAPs emissions is a bit more stringent but will make the record keeping easier. The individual HAP emitted at the highest level is methylene chloride (7.4 ton/yr). Again, to allow growth, the permit restricts emissions to 10 ton/yr or 0.825 ton/month for each individual HAP. Total OC will be restricted to 29.85 tons/year. The cadmium and chromium anodizing tanks also emit particulates in very small quantities. The chromium anodizing tank is subject to the NESHAP rules (subpart N). The methylene chloride vapor degreaser is subject to the NESHAP rules (subpart T).

#### HAPs Facility Emissions:

**K001 and K002 (paint booths) HAPS: Toluene 0.83 lb/day, 0.94 TPY (Potential = 1.41 TPY)**

**Xylene: 1.26 lb/day, 0.23 TPY (Potential = 0.35 TPY)**

**Methyl Isobutyle Ketone: 1.94 lb/day, 0.34 TPY (Potential = 0.51 TPY)**

144 NEW SC

PTI Num:

FACILITY

Emissions Unit ID: **P006**

FACILITY DESCRIPTION

Cold Solvent Tanks, Methylene Chloride  
Degreaser, Soluble Cutting Oil Use, Rust  
Preventative Use, Booting Operations, Coating  
Operations, Miscellaneous Solvent Use, Chrome  
Plating, Anodizing

CITY/TWP Vandalia

**Methyl Ethyl Ketone: 12.63 lb/day, 2.3 TPY (Potential = 3.45 TPY)**

**L003, L004, L005, L006 (Stoddard Cleaners): No HAPs**

**L007, L008, L009(Cold Cleaners): Each emissions unit emits the following:**

**Toluene: 0.26 TPY (Potential =0.39 TPY)**

**Xylene: 0.20 TPY (Potential =0.30 TPY)**

**Hexane: 0.20 TPY (Potential = 0.30 TPY)**

**L010 (methylene chloride degreaser) :7.4 TPY, 0.62 ton/month (Potential = 11.10 TPY)**

**P003 (booting operation): MEK: 0.03 TPY (Potential =0.045 TPY)**

**N-Hexane: 0.013 TPY (Potential = 0.0195 TPY)**

**Toluene: 0.013 TPY (Potential = 0.0195 TPY)**

**P005 Misc. Solvent Use: Hexane: 0.29 TPY (Potential = 0.435 TPY)**

**Toluene: 0.44 TPY (Potential = 0.66 TPY)**

**Xylene: 0.29 TPY (Potential = 0.435 TPY)**

**P001: Chromium anodizing: 4.5 X 10E-5 TPY (Potential = 0.000067 TPY)**

### NSR Discussion and Calculations

McCauley Corporation has applied for a synthetic minor PTI. Two units, the methylene chloride degreaser and the chromium anodizing are subject to MACT standards. The paint booths require a PTI because paint usage and emissions have increased. All sources which emit OC and/or HAPs have been included in this synthetic minor permit. Following are the calculations for the emissions unit. Modeling was conducted for MEK emissions from the paint booths. Modeling was not conducted for the methylene chloride degreaser because a MACT standard applies.

#### Calculations:

**Paint Booth K001 and K002**

**Prop Gear Primer**

Coating Density: 7.03 lbs/gallon Solvent Density: 6.47 lbs/gallon

Solids content: 8% by volume and 8% by weight

Maximum Usage: 730 gallons/year 2 gallons/day 16 hr/day

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04096

Facility ID: 0857171342

FACILITY NAME McCauley Propeller Systems

FACILITY DESCRIPTION Cold Solvent Tanks, Methylene Chloride

CITY/TWP Vandalia

Emissions Unit ID: **P006**Plating, Anodizing $(.92)(6.47 \text{ lbs/gallon}) = 5.95 \text{ lbs OC/gallon}$  $(730 \text{ gallons/yr})(5.95 \text{ lbs OC/gallon}) = 2.17 \text{ TPY}$  $(2 \text{ gallons/day})(5.95 \text{ lbs OC/gallon}) = 11.8 \text{ lbs/day}$ **HAPS:**Toluene 1% by volume OC:  $(.01)(5.95 \text{ lbs/gallon}) = (.06 \text{ lbs/gallon})(2.0 \text{ gallons/day}) = 0.12 \text{ lb/day}$  $(.06 \text{ lb/gallon})(730 \text{ gallons/yr}) = 43.8 \text{ lbs/yr } (.02 \text{ TPY})$ Xylene 1% by volume OC:  $(.01)(5.95 \text{ lbs/gallon}) = (.06 \text{ lb/gallon})(2.0 \text{ gallons/day}) = 0.12 \text{ lb/day}$  $(.06 \text{ lb/gallon})(730 \text{ gallons/yr}) = 43.8 \text{ lbs/yr } (.02 \text{ TPY})$ Methyl Isobutyle Ketone:  $(.15)(5.95 \text{ lbs/gallon}) = (0.89 \text{ lb/gallon})(2 \text{ gallons/day}) = 1.78 \text{ lbs/day}$  $(0.89 \text{ lb/gallon})(730 \text{ gallons/yr}) = 649.7 \text{ lbs/yr } (.32 \text{ TPY})$ Methyl Ethyl Ketone:  $(.30)(5.95 \text{ lbs/gallon}) = 1.79 \text{ lb/gallon} \times 2 \text{ gallon/day} = 3.58 \text{ lbs/day}$  $(1.79 \text{ lbs/gallon})(730 \text{ gallons/yr}) = 1306.7 \text{ lbs/yr } (.65 \text{ TPY})$ **Prop Gear Topcoat****A range of values have been given for coating specifics. Worst case conditions were used for the following calculations:**

Coating Density: 9.7 lbs/gallon Solvent Density: 5.7 lbs/gallon

Solvent content 72% by volume

 $(.72)(9.7 \text{ lbs/gallon}) = 6.98 \text{ lbs/gallon OC}$ 

Maximum hourly usage = 5.0 gallons

Maximum yearly usage = 1825 gallons

 $(5.0 \text{ gallons/hr})(6.98 \text{ lbs/gallon}) = 34.9 \text{ lbs/hr}$  $(1825 \text{ gallons/yr})(6.98 \text{ lbs/gallon}) = 12738.5 \text{ lbs/yr} = 6.37 \text{ TPY}$ **HAPS:**Toluene: 14% by volume OC  $(6.98 \text{ lbs/gallon OC})(.14) = (.98 \text{ lbs/gallon})(5 \text{ gallon/day}) = 4.9 \text{ lb/day}$  $(.98 \text{ lb/gallon})(1825 \text{ gallon/yr}) = 1788.5 \text{ lbs/yr} = .89 \text{ TPY}$ Xylene: 3% by volume OC  $(6.98 \text{ lbs/gallon})(.03) = .21 \text{ lb/gallon} \times 5 \text{ gallons/day} = 1.05 \text{ lbs/day}$  $(.21 \text{ lb/gallon})(1825 \text{ gallon/yr}) = 383.25 \text{ lbs/yr } (.19 \text{ TPY})$ Methyl Ethyl Ketone: 26% by volume OC  $(6.98 \text{ lbs/gallon})(.26) = 1.81 \text{ lbs/gallon} \times 5 \text{ gallon/day} = 9.05 \text{ lbs}$  $(1.81 \text{ lbs/gallon})(1825 \text{ gallons/yr}) = 3303.25 \text{ lbs/yr} = 1.65 \text{ TPY}$ Cyclohexane: 32% by volume Oc  $(6.98 \text{ lbs/gallon})(.32) = 2.23 \text{ lbs/gallon} \times 5 \text{ gallons/day} = 11.15 \text{ lb/day}$  $(2.23 \text{ lbs/gallon})(1825 \text{ gallon/yr}) = 4069.75 \text{ lbs/yr} = 2.03 \text{ TPY}$ **Landing Gear Primer**

Coating Density: 10.10 lbs/gallon Solvent Density: 4.5 lbs/gallon

Solvent Content: 62 % by volume

Maximum Usage: 0.5 gallon/day 182.5 gallons/yr

## FACILITY DESCRIPTION

Cold Solvent Tanks, Methylene Chloride  
 Degreaser, Soluble Cutting Oil Use, Rust  
 Preventative Use, Booting Operations, Coating  
 Operations, Miscellaneous Solvent Use, Chrome  
 Plating, Anodizing

CITY/TWP Vandalia

$$(4.5 \text{ lbs/gallon})(.62) = 2.79 \text{ lbs/gallon}$$

$$(0.5 \text{ gallon/day})(2.79 \text{ lbs/gallon}) = 1.40 \text{ lbs/day}$$

$$(2.79 \text{ lbs/gallon})(182.5 \text{ gallons/yr}) = 509.2 \text{ lbs/year}$$

**HAPS**

Methyl isobutyl Ketone: 11% by volume OC  $(2.79 \text{ lbs/gallon})(.11) = 0.31 \text{ lb/gallon}$

$$(.31 \text{ lb/gallon})(.5 \text{ gallon/day}) = .16 \text{ lb/day}$$

$$(.31 \text{ lb/gallon})(182.5 \text{ gallons/year}) = 56.58 \text{ lbs/year } (.02 \text{ TPY})$$

Toluene: 7% by volume OC  $(2.79 \text{ lb/gallon})(.07) = .20 \text{ lb/gallon}$   $(.20 \text{ lb/gallon})(.5 \text{ gallon/day}) = .1 \text{ lb/day}$

$$(.20 \text{ lb/gallon})(182.5 \text{ gallons/year}) = 36.5 \text{ lbs/year } (.01 \text{ TPY})$$

**Landing Gear Topcoat**

Coating Density: 8.83 lbs/gallon Solvent Density: 5.41 lbs/gallon

Solvent Content: 69% by volume

Maximum Usage: 182.5 gallons/year 0.5 gallon/day

$$(5.41 \text{ lbs/gallon})(.69) = 3.73 \text{ lbs/gallon OC}$$

$$(0.5 \text{ gallon/day})(3.73 \text{ lbs/gallon}) = 1.87 \text{ lbs/day OC}$$

$$(3.73 \text{ lbs/gallon})(182.5 \text{ gallons/year}) = 681.27 \text{ lbs/year}$$

**HAPS**

Xylene: 4.8% by volume OC  $(3.73 \text{ lb/gallon})(.048) = 0.18 \text{ lb/gallon}$

$$(.18 \text{ lb/gallon})(.5 \text{ gallon/day}) = .09 \text{ lb/day}$$

$$(.18 \text{ lb/gallon})(182.5 \text{ gallons/yr}) = 32.85 \text{ lbs/yr } (.016 \text{ TPY})$$

Toluene: 6.2% by volume Oc  $(3.73 \text{ lb/gallon})(.062) = .23 \text{ lb/gallon}$

$$(.23 \text{ lb/gallon})(.5 \text{ gallon/day}) = .12 \text{ lb/day}$$

$$(.23 \text{ lb/gallon})(182.5 \text{ gallons/yr}) = 41.98 \text{ lbs/yr } (.02 \text{ TPY})$$

**L003 Cold Cleaner, Stoddard Solvent**

Stoddard Solvent: 6.38 lbs/gallon

maximum quantity used: 263 gallons/yr

$$(263 \text{ gallons/yr})(6.38 \text{ lbs/gallon}) = 0.84 \text{ ton/yr}$$

$$0.84 \text{ ton/yr} / 12 \text{ mo/yr} = 0.07 \text{ ton/month}$$

**Calculations for L004, L005, L006 are identical to L003**

NEW SC

PTI Num

FACILITY

FACILITY DESCRIPTION

Cold Solvent Tanks, Methylene Chloride Degreaser, Soluble Cutting Oil Use, Rust Preventative Use, Booting Operations, Coating Operations, Miscellaneous Solvent Use, Chrome Plating, Anodizing

Emissions Unit ID: P006  
CITY/TWP Vandalia

**L007, 24 hr/day, 5760 hr/yr (actual)**

Superior 678: Density = 6.73 lbs/gallon

% weight Toluene = 22%

% weight Xylene = 17%

% by weight hexane = 17%

gallons used/year = 350 gallons

(350 gallons/yr)(6.73 lbs/gallon) = 1.18 TPY

1.18 TPY / 12 months = 0.09 ton/month

**HAPS**

Toluene: (350 gallons/yr)(6.73 lbs/gallon)(.22) = 518.21 lbs/yr (.26 TPY)

Xylene: (350 gallons/yr)(6.73 lbs/gallon)(.17) = 400.44 lbs/yr (.20 TPY)

Hexane: (350 gallons/yr)(6.73 lbs/gallon)(.17) = 400.44 lbs/yr (.20 TPY)

**Calculations for L008 and L009 are identical to calculations for L007**

**P003 Booting Operation**

lb/gallon: 7.34 lb/gallon

% volatiles: 74% by weight

Amount of glue used per hour = 0.10 lb/hr

.10 lb/hr X .74 = .07 lbs/hr

Max hr. of operation = 3840 hr/yr .268.8 lb/yr from glue

**HAPS**

MEK .25 X .07 lbs/hr = .0175 lbs/hr 67.2 lb/yr (.03 TPY)

N-Hexane .10 X .07 lb/hr = .007 lb/hr 26.88 lb/yr (.013 TPY)

Toluene .10 X .07 lb/hr = .003 lb/hr 26.88 lb/yr (.013 TPY)

Amount of Amount of MPK: 0.94 lb/hr

Density: 6.76 lbs/gallon

Total OC emissions = .94 lb/hr + .07 lb/hr = 1.01 lbs/hr

**148 NEW SOURCE REVIEW FORM B**

PTI Number: 08-04096

Facility ID: 0857171342

FACILITY NAME McCauley Propeller Systems

FACILITY DESCRIPTION Cold Solvent Tanks, Methylene Chloride

CITY/TWP Vandalia

Emissions Unit ID: **P006**Plating, Anodizing**P004 Rust Preventative Operation**

55 gallons/2 months or 330 gallons/yr

Average hours of operation = 3840 hr/yr

330 gallons/yr / 3840 hr/yr = .086 gallons/hr

.086 gallons/hr X 100% OC by volume X .89 X 8.34 = .64 lbs/hr (average)

1.3 lbs/hr of rust preventative is maximum use, 100% OC

Worst case emissions = 1.3 lb/hr

Max. hours of operation = 8760 hr/yr = 5.70 TPY

McCauley is requesting a restriction of 2.5 TPY emissions

(.64 lb/hr)(8760 hr/yr) = 2.8 TPY

Annual emissions of 2.5 TPY will allowable in permit

**P005 Miscellaneous Solvent Use, 16 hrs/day**

Cleaning Parts and Paint Guns

"Eastman" MPK: 0.62 lb/hr of MPK used, Maximum hours of operation: 16 hr/day, 4000 hr/yr

95% MPK, 5% Hexone

Total OC: (.62 lb/hr)(16 hr/day) = 9.92 lbs/day

(0.62 lbs/hr)(4000 hr/day) = 2480 lbs/yr or 1.24 ton/yr

Superior 678

0.77 lb/hr, 16 hr/day

lb/gallon = 6.70

100% volatile by volume

(0.77 lb/hr)(16 hr/day) = 12.32 lb/day total OC

0.77 lb/hr)(4000 hr/yr) = 3080 lbs/yr total OC

**HAPs**

Hexane 20% by weight (.20)(6.7 lb/gallon) = (1.34 lb/gallon)(.11 gallon/hr) = .15 lb/hr hexane, 589.6 lbs/yr (.29 TPY)

Toluene 30% by wt.: (.30)(6.7 lbs/gallon) = 2.01 lb/gallon X .11 gal/hr = .22 lb/hr, 880 lbs/yr (.44 TPY)

Xylene: 20% by wt.: .15 lb/hr xylene, 589.6 lbs/yr (.29 TPY)

Industry is requesting 1.4 lb/hr, 1.34 TPY total OC

**P006 Soluble Cutting Oil Use**

Amount of oil used = 6.7 lbs/hr

Hexylene Glycol = 5%

(.05)(6.7 lbs/gallon) = .34 lbs/hr OC

Cold Solvent Tanks, Methylene Chloride  
Degreaser, Soluble Cutting Oil Use, Rust  
Preventative Use, Booting Operations, Coating  
Operations, Miscellaneous Solvent Use, Chrome  
Plating, Anodizing

Emissions Unit ID: **P006**  
CITY/TWP Vandalia

24 hrs/day, 8760 hrs/yr maximum

$0.34 \text{ lbs/hr} \times 24 \text{ hrs/day} = 8.16 \text{ lbs/day OC}$

$0.34 \text{ lb/hr} \times 8760 \text{ hr/yr} = 1.49 \text{ TPY}$

Average hrs of operation = 3840 hrs/yr

$(3840 \text{ hrs/yr})(.34 \text{ lb/hr OC}) = .65 \text{ TPY}$

Industry is requesting 0.34 lb/hr and 0.64 TPY

### **P001 Aluminum Anodizing Operation**

Area of tank = 96 square feet

Emission Factor = 0.00075 grains/hr/ft<sup>2</sup>

$(96)(0.00075 \text{ grains/hr/ft}^2)(1 \text{ lb/7000 grains})(8760 \text{ hr/yr})(\text{ton}/2000 \text{ lbs}) = 4.5 \text{ E-5 ton/yr chromium (HAPs)}$

2.41 ton/yr particulates (based on allowable in OAC)

### **P002 Cadmium Plating**

$\text{Cd: } (1.7 \times 10^{-6} \text{ dsf})(25,000 \text{ acfm})(60 \text{ min/hr})(\text{lb}/7000 \text{ gr}) = 0.00038 \text{ lb/hr}$

$(0.00038 \text{ lb/hr})(730 \text{ hr/month}) = 0.27 \text{ lb/month}$

$(0.27 \text{ lb/month})(12 \text{ month/yr}) = 3.32 \text{ lbs/yr}$

$\text{Cyanide: } (5.9 \times 10^{-4} \text{ gdsf})(60 \text{ min/hr})(25,000 \text{ acfm})(\text{lb}/7000 \text{ grains}) = 0.013 \text{ lb/hr}$

$(0.013 \text{ lb/hr})(730 \text{ hr/month}) = 9.49 \text{ lb/month}$

$(9.49 \text{ lb/month})(12 \text{ months/yr}) = 0.06 \text{ TPY}$

$\text{Hydrogen chloride emissions: } (1.0 \times 10^{-4} \text{ gr/dscf})(25,000 \text{ acfm})(60 \text{ min/hr})(\text{lb}/7000 \text{ gr}) = 0.02 \text{ lb/hr}$

$(.02 \text{ lb/hr})(730 \text{ hr/mo}) = 14.6 \text{ lb/mo}$

$(14.6 \text{ lb/mo})(12 \text{ months/year}) = 0.08 \text{ TPY}$

### **L010 Methylene Chloride Degreaser, 16 hr/day**

**Emissions equal to 0.62 ton/month and 7.4 ton/year (HAPs)**

**Total HAPs = 16.49 total HAPs**

**Individual HAPs**

**Methylene Chloride = 7.4 TPY**

**Toluene = 1.65 TPY**

**Xylene = 1.206 TPY**

150 NEW SC

PTI Num

FACILITY

FACILITY DESCRIPTION

Cold Solvent Tanks, Methylene Chloride  
Degreaser, Soluble Cutting Oil Use, Rust  
Preventative Use, Booting Operations, Coating  
Operations, Miscellaneous Solvent Use, Chrome  
Plating, Anodizing

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Emissions Unit ID: **P006** \_\_\_\_\_  
CITY/TWP Vandalia

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**MEK = 2.3 TPY**

**MIK = .34 TPY**

**Largest Individual, Methylene Chloride: 7.40 TPY**

**Total OC = 29.85 TPY**

**Please fill in the following for this permit:**

151 NEW SC

PTI Num

FACILITY

FACILITY DESCRIPTION

Cold Solvent Tanks, Methylene Chloride  
Degreaser, Soluble Cutting Oil Use, Rust  
Preventative Use, Booting Operations, Coating  
Operations, Miscellaneous Solvent Use, Chrome  
Plating, Anodizing

Emissions Unit ID: **P006** \_\_\_\_\_  
CITY/TWP Vandalia

**TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
<b>OC</b>	<b>29.85 TPY</b>
<b>Particulates</b>	<b>4.82 TPY</b>
<b>Individual HAPs</b>	<b>10.0 TPY</b>
<b>Total HAPs</b>	<b>25.0 TPY</b>