



State of Ohio Environmental Protection Agency

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

**CERTIFIED MAIL**

Street Address:

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

Mailing Address:

Lazarus Gov.  
Center

**Application No: 08-04098**

**DATE: 3/15/00**

Metokote Corporation - Plant 6  
Tonja Hardin  
1340 Neubrecht Rd  
Lima, OH 45414

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

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

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

Environmental Review Appeals Commission  
236 East Town Street, Room 300  
Columbus, Ohio 43215

Very truly yours,

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

CC: USEPA

RAPCA



**Permit To Install**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**FINAL PERMIT TO INSTALL 08-04098**

Application Number: 08-04098  
APS Premise Number: 0857701939  
Permit Fee: **\$400**  
Name of Facility: Metokote Corporation - Plant 6  
Person to Contact: Tonja Hardin  
Address: 1340 Neubrecht Rd  
Lima, OH 45414

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**3435 Stop Eight Rd**  
**Dayton, Ohio**

Description of proposed emissions unit(s):  
**Electrocoat coating line for miscellaneous metal parts**

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency



Director

## **Part I - GENERAL TERMS AND CONDITIONS**

### **A. State and Federally Enforceable Permit To Install General Terms and Conditions**

#### **1. Monitoring and Related Recordkeeping and Reporting Requirements**

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. 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.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written 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. See B.11 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

## **2. 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, i.e., upset, 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. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to 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 emission unit(s) that is (are) served by such control system(s).

## **3. Risk Management Plans**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

## **4. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

## **5. Severability Clause**

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition

declared invalid.

## 6. General Requirements

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. 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 request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

## 7. 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.

## 8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

## 9. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

**10. Permit To Operate Application**

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. 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 source(s) covered by this permit.

## **B. State Only Enforceable 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 of state-only enforceable 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 state-only required 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. 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.

### **4. 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.

## **5. 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.

## **6. 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.

## **7. 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.

**8. 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).

**9. 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.

**10. 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.

**11. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)**

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.

**C. 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>
VOC	45.14

**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

**A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

None.

**B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions**

None.

**Part III - SPEC**

**IAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. 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 - Electrocoat line #1 for metal parts, (Modification, see Section A.VI.1.)	OAC rule 3745-21-09(U)(1)(c)	3.5 pounds of volatile organic compounds (VOC) per gallon of coating, as a daily volume-weighted average, excluding water and exempt solvents

**2. Additional Terms and Conditions**

- 2.a The VOC content of each coating employed in the electrocoating dip tank of this emissions unit shall comply with the VOC content limitation of 3.5 pounds VOC/gallon of coating, excluding water and exempt solvents. To ensure compliance with this VOC content limitation, the combination of materials added to the dip tank (i.e., resin, paste, and flow control) on a daily basis also shall meet 3.5 pounds of VOC/gallon of materials as a volume-weighted average, excluding water and exempt solvents.

**II. Operational Restrictions**

None

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

1. The permittee shall collect and record the following information each day for the electrocoating dip tank:
  - a. The name and identification number of each material added to the electrocoating dip tank, as applied;
  - b. The VOC content, excluding water and exempt solvents, of each material added to the electrocoating dip tank, as applied;
  - c. The number of gallons of each material added to the electrocoating dip tank, excluding water and exempt solvents, as applied; and,
  - d. The daily, volume-weighted average VOC content of all materials (i.e., resin, paste, and flow control) added to the dip tank, excluding water and exempt solvents, by summing the products of (b) x (c) for all individual materials and dividing by the daily total number of gallons of all materials.

#### IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing any daily record showing the use of a noncomplying coating material. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

#### V. 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 -  
  
3.5 pounds VOC/gallon coating, excluding water and exempt solvents  
  
Applicable Compliance Method -  
Compliance with this VOC content limitation shall be demonstrated by ensuring that the

VOC content of the combination of all coating materials added to the dip tank meets 3.5 pounds VOC/gallon of materials, excluding water and exempt solvents, as a daily volume-weighted average. If required, USEPA Method 24 shall be used to determine the VOC content of the coating in the electrocoating dip tank. If, pursuant to Section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24.

b. Emission Limitation -

3.5 pounds VOC/gallon of coating materials, as a daily volume-weighted average of all materials added to the dip tank, excluding water and exempt solvents

Applicable Compliance Method -  
Compliance shall be based upon record keeping as specified in Section A.III. and by calculating the volume-weighted average of all materials added to the dip tank on a daily basis using the following equation:

$$\frac{[(\# \text{ gal of resin})(\text{VOC content of resin}) + (\# \text{ gal of paste})(\text{VOC content of paste}) + (\# \text{ gal of flow control})(\text{VOC content of flow control})]}{\text{total \# of gallons of all materials for that day}} = \text{daily volume-weighted average}$$

## VI. Miscellaneous Requirements

Metokote Corporation - Plant 6

PTI Application: ~~08 04008~~

**Issued**

Facility ID: **0857701939**

Emissions Unit ID: K001

1. For K001 and K002, this is a modification to PTI 08-3677, as issued on 10/15/97. This modification represents an addition of cleanup materials to the process. The addition of cleanup materials results in an increase annual VOC emissions of 16.88 TPY per emissions unit by increasing the permit allowables from 5.56 TPY VOC from the previous PTI to 22.57 TPY per emissions unit.

**B. State Only Enforceable Section**

**I. 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 - Electrocoat line #1 for metal parts, (Modification, see Section A.VI.1.)	OAC rule 3745-31-05 (A)(3)	3.5 pounds of volatile organic compounds (VOC) per gallon of coating, as a daily volume-weighted average, excluding water and exempt solvents  1.25 lb VOC/gallon of coating, as a monthly volume-weighted average, excluding water and exempt solvents  0.47 tons/month VOC, 5.69 TPY VOC, excluding cleanup;  1.41 tons/month VOC, 16.88 TPY VOC, cleanup materials; and,  Compliance with the Air Toxic Policy

**2. Additional Terms and Conditions**

- 2.a The VOC content of each coating employed in the electrocoating dip tank of this emissions unit shall comply with the VOC content limitation of 1.25 lb VOC/gallon of coating, excluding water and exempt solvents, as a monthly volume-weighted average. To ensure compliance with this VOC content limitation, the combination of materials added to the dip tank (i.e., resin,

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PTI A<sub>1</sub>

**Issued: 3/15/00**

Emissions Unit ID: K001

paste, and flow control) on a monthly basis also shall meet 1.25 lb VOC/gallon of materials as a volume-weighted average, excluding water and exempt solvents.

**II. Operational Restrictions**

1. The permittee shall not exceed the following coating usage amounts in this emissions unit:  
Resin: 64,000 gallons per year  
Paste: 8,000 gallons per year  
Flow Control: 3,820 gallons per year

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

1. See Section A.III.
2. The permittee shall collect and record the following information each month for the electrocoating dip tank:
  - a. The name and identification number for each resin, paste, and flow control added to the tank;
  - b. The number of gallons of each resin, paste, and flow control added to the tank;
  - c. The VOC content of each resin, paste and flow control, in pounds per gallon, excluding water and exempt solvents;
  - d. The monthly volume-weighted average VOC content, excluding water and exempt solvents, in pounds per gallon, for the combined materials; and,
  - e. The total organic compound emission rate, in pounds per month, i.e., the sum of the products of (b) x (c) for each resins, pastes, and flow controls.
3. The permittee shall collect and record the following information each month for the cleanup operations:
  - a. The name and identification number for each cleanup material applied;
  - b. The number of gallons of each cleanup material applied;
  - c. The VOC content of each cleanup material, in pounds per gallon, as applied; and,
  - d. The total organic compound emission rate, in pounds per month, i.e., the sum of the

Emissions Unit ID: K001

products of (b) x (c) for each cleanup material.

4. The permittee shall collect and record the following information for each change where air toxic modeling was required pursuant to the Air Toxic Policy:
  - a. Background data that describes 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.

#### IV. Reporting Requirements

1. In accordance with paragraph B.2. 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 include the following information for this emissions unit:
  - a. An identification of each day during which the daily volume-weighted average VOC content for the combined materials exceeds 3.5 lbs VOC/gallon of coating, excluding water and exempt solvents, and the actual volume-weighted average VOC content for each such day;
  - b. An identification of each month during which the monthly volume-weighted average VOC content for the combined materials exceeds 1.25 lb VOC/gallon of coating, excluding water and exempt solvents, and the actual volume-weighted average VOC content for each such month;
  - c. An identification of each month during which the monthly VOC emission rate exceeds 0.47 TPM, excluding cleanup, and the actual VOC emission rate for that month; and,
  - d. An identification of each month during which the monthly VOC emission rate exceeds 1.41 TPM, cleanup materials only, and the actual VOC emission rate for that month.

2. The permittee shall submit, in writing, an annual report to the Director (the appropriate Ohio EPA District Office or local air agency) which specifies the annual coating usage, in gallons, for resin, past, and flow control and the total organic emissions, in tons (from coatings and cleanup materials).

**V. Testing Requirements**

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

- a. Emission Limitation -

3.50 lbs VOC/gallon coating, as a daily volume-weighted average, excluding water and exempt solvents

Applicable Compliance Method -  
See Section A.V.1.b.

## b. Emission Limitation -

1.25 lb VOC/gallon of coating, as a monthly volume-weighted average, excluding water and exempt solvents

## Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section B.III.2. and by calculating the volume-weighted average of all the materials added to the dip tank on a monthly basis using the following equation:

$$\frac{[(\# \text{ gal of resin})(\text{VOC content of resin}) + (\# \text{ gal of paste})(\text{VOC content of paste}) + (\# \text{ gal of flow control})(\text{VOC content of flow control})]}{\text{total \# gallons of all materials for that month}} = \text{monthly volume-weighted average}$$

## c. Emission Limitation -

0.47 TPM VOC, excluding cleanup

## Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section B.III.2.

## d. Emission Limitation -

5.69 TPY VOC, excluding cleanup

## Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section B.III.2. and shall be the sum of the twelve monthly VOC emission rates.

## e. Emission Limitation -

64,000 gallons of resin per year; 8,000 gallons of paste per year; and 3,820 gallons of flow control per year

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section B.III.2. and shall be the sum of the twelve monthly usage rates.

f. Emission Limitation -

1.41 TPM VOC, cleanup materials only

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section B.III.3.

g. Emission Limitation -

16.88 TPY VOC, cleanup materials only

Emissions Unit ID: K001

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section B.III.3. and shall be the sum of the twelve monthly VOC emission rates.

## VI. Miscellaneous Requirements

1. This permit allows the use of materials (typically coatings and cleanup materials) specified by the permittee in the permit to install application for this emissions unit. To fulfill the best available technology requirements of (OAC) rule 3745-31-05 and to ensure compliance with OAC rule 3745-15-07 (Air Pollution Nuisances Prohibited), the emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: MEK

TLV (ug/m3): 589,856.85

Maximum Hourly Emission Rate (lbs/hr): 8.01

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1677

MAGLC (ug/m3): 5898.57

Physical changes or changes in the method of operation of the emissions unit that result in changes to the factors affecting the air toxic analysis could result in noncompliance with this permit to install. In order to avoid this noncompliance situation, prior to initiating any changes, permittees are required to conduct an evaluation to determine that the "Air Toxic Policy" is still satisfied. Changes that can affect the "Air Toxic Policy" include, but are not limited to, the following:

- a. Changes in the composition of the materials 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 Ohio EPA will not consider any of the above-mentioned as a "modification" requiring a permit to install, if the following conditions are met:

- a. The change is not otherwise considered a "modification" under OAC Chapter 3745-31;
- b. The permittee can continue to comply with the allowable emission limitations specified in its permit to install; and,
- c. Prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy, determines that the changed emissions unit still satisfies the Air Toxic Policy, and the permittee maintains documentation that identifies the change and the results of the application of the Air Toxic Policy for the change.

For any change to the emissions unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. 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 - Electrocoat line #2 for metal parts, (Modification, see Section A.VI.1.)	OAC rule 3745-21-09(U)(1)(c)	3.5 pounds of volatile organic compounds (VOC) per gallon of coating, as a daily volume-weighted average, excluding water and exempt solvents

**2. Additional Terms and Conditions**

- 2.a The VOC content of each coating employed in the electrocoating dip tank of this emissions unit shall comply with the VOC content limitation of 3.5 pounds VOC/gallon of coating, excluding water and exempt solvents. To ensure compliance with this VOC content limitation, the combination of materials added to the dip tank (i.e., resin, paste, and flow control) on a daily basis also shall meet 3.5 pounds of VOC/gallon of materials as a volume-weighted average, excluding water and exempt solvents.

**II. Operational Restrictions**

None

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

**Issued**

Emissions Unit ID: K002

1. The permittee shall collect and record the following information each day for the electrocoating dip tank:
  - a. The name and identification number of each material added to the electrocoating dip tank, as applied;
  - b. The VOC content, excluding water and exempt solvents, of each material added to the electrocoating dip tank, as applied;
  - c. The number of gallons of each material added to the electrocoating dip tank, excluding water and exempt solvents, as applied; and,
  - d. The daily, volume-weighted average VOC content of all materials (i.e., resin, paste, and flow control) added to the dip tank, excluding water and exempt solvents, by summing the products of (b) x (c) for all individual materials and dividing by the daily total number of gallons of all materials.

**IV. Reporting Requirements**

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing any daily record showing the use of a noncomplying coating material. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

**V. 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 -

3.5 pounds VOC/gallon coating, excluding water and exempt solvents

Applicable Compliance Method -

Compliance with this VOC content limitation shall be demonstrated by ensuring that the VOC content of the combination of all coating materials added to the dip tank meets 3.5 pounds VOC/gallon of materials, excluding water and exempt solvents, as a daily volume-weighted average. If required, USEPA Method 24 shall be used to

determine the VOC content of the coating in the electrocoating dip tank. If, pursuant to Section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24.

b. Emission Limitation -

3.5 pounds VOC/gallon of coating materials, as a daily volume-weighted average of all materials added to the dip tank, excluding water and exempt solvents

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III. and by calculating the volume-weighted average of all materials added to the dip tank on a daily basis using the following equation:

$$[(\# \text{ gal of resin})(\text{VOC content of resin}) + (\# \text{ gal of paste})(\text{VOC content of paste}) + (\# \text{ gal of flow control})(\text{VOC content of flow control})] / \text{total } \# \text{ of gallons of all materials for that day} = \text{daily volume-weighted average}$$

## VI. Miscellaneous Requirements

1. For K001 and K002, this is a modification to PTI 08-3677, as issued on 10/15/97. This modification represents an addition of cleanup materials to the process. The addition of cleanup materials results in an increase annual VOC emissions of 16.88 TPY per emissions unit by increasing the permit allowables from 5.56 TPY VOC from the previous PTI to 22.57 TPY per emissions unit.

**B. State Only Enforceable Section**

**I. 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 - Electrocoat line #2 for metal parts, (Modification, see Section A.VI.1.)	OAC rule 3745-31-05(A)(3)	3.5 pounds of volatile organic compounds (VOC) per gallon of coating, as a daily volume-weighted average, excluding water and exempt solvents  1.25 lb VOC/gallon of coating, as a monthly volume-weighted average, excluding water and exempt solvents  0.47 tons/month VOC, 5.69 TPY VOC, excluding cleanup;  1.41 tons/month VOC, 16.88 TPY VOC, cleanup materials only; and,  Compliance with the Air Toxic Policy

**2. Additional Terms and Conditions**

- 2.a The VOC content of each coating employed in the electrocoating dip tank of this emissions unit shall comply with the VOC content limitation of 1.25 lb VOC/gallon of coating, excluding water and exempt solvents, as a monthly volume-weighted average. To ensure compliance with this VOC content limitation, the combination of materials added to the dip tank (i.e., resin, paste, and flow control) on a monthly basis also shall meet 1.25 lb VOC/gallon of materials as a volume-weighted average, excluding water and exempt solvents.

**II. Operational Restrictions**

1. The permittee shall not exceed the following coating usage amounts in this emissions unit:  
Resin: 64,000 gallons per year  
Paste: 8,000 gallons per year  
Flow Control: 3,820 gallons per year

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

1. See Section A.III.
2. The permittee shall collect and record the following information each month for the electrocoating dip tank:
  - a. The name and identification number for each resin, paste, and flow control added to the tank;
  - b. The number of gallons of each resin, paste, and flow control added to the tank;
  - c. The VOC content of each resin, paste and flow control, in pounds per gallon, excluding water and exempt solvents;
  - d. The monthly volume-weighted average VOC content, excluding water and exempt solvents, in pounds per gallon, for the combined materials; and,
  - e. The total organic compound emission rate, in pounds per month, i.e., the sum of the products of (b) x (c) for each resins, pastes, and flow controls.
3. The permittee shall collect and record the following information each month for the cleanup operations:
  - a. The name and identification number for each cleanup material applied;
  - b. The number of gallons of each cleanup material applied;
  - c. The VOC content of each cleanup material, in pounds per gallon, as applied; and,
  - d. The total organic compound emission rate, in pounds per month, i.e., the sum of the products of (b) x (c) for each cleanup material.
4. The permittee shall collect and record the following information for each change where air toxic modeling was required pursuant to the Air Toxic Policy:

- a. Background data that describes 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.

#### IV. Reporting Requirements

1. In accordance with paragraph B.2. 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 include the following information for this emissions unit:
  - a. An identification of each day during which the daily volume-weighted average VOC content for the combined materials exceeds 3.5 lbs VOC/gallon of coating, excluding water and exempt solvents, and the actual volume-weighted average VOC content for each such day;
  - b. An identification of each month during which the monthly volume-weighted average VOC content for the combined materials exceeds 1.25 lb VOC/gallon of coating, excluding water and exempt solvents, and the actual volume-weighted average VOC content for each such month;
  - c. An identification of each month during which the monthly VOC emission rate exceeds 0.47 TPM, excluding cleanup, and the actual VOC emission rate for that month; and,
  - d. An identification of each month during which the monthly VOC emission rate exceeds 1.41 TPM, cleanup materials only, and the actual VOC emission rate for that month.

**Issued**

Emissions Unit ID: K002

2. The permittee shall submit, in writing, an annual report to the Director (the appropriate Ohio EPA District Office or local air agency) which specifies the annual coating usage, in gallons, for resin, past, and flow control and the total organic emissions, in tons (from coatings and cleanup materials).

**V. Testing Requirements**

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

- a. Emission Limitation -

3.50 lbs VOC/gallon coating, as a daily volume-weighted average, excluding water and exempt solvents

Applicable Compliance Method -  
See Section A.V.1.b.

## b. Emission Limitation -

1.25 lb VOC/gallon of coating, as a monthly volume-weighted average, excluding water and exempt solvents

## Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section B.III.2. and by calculating the volume-weighted average of all the materials added to the dip tank on a monthly basis using the following equation:

$$\frac{[(\# \text{ gal of resin})(\text{VOC content of resin}) + (\# \text{ gal of paste})(\text{VOC content of paste}) + (\# \text{ gal of flow control})(\text{VOC content of flow control})]}{\text{total \# gallons of all materials for that month}} = \text{monthly volume-weighted average}$$

## c. Emission Limitation -

0.47 TPM VOC, excluding cleanup

## Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section B.III.2.

## d. Emission Limitation -

5.69 TPY VOC, excluding cleanup

## Applicable Compliance Method -

Compliance shall be based upon record keeping as required in Section B.III.2. and shall be the sum of the twelve monthly VOC emission rates.

## e. Emission Limitation -

64,000 gallons of resin per year; 8,000 gallons of paste per year; and 3,820 gallons of flow control per year

Applicable Compliance Method -  
Compliance shall be based upon record keeping as specified in Section B.III.2. and shall be the sum of the twelve monthly usage rates.

f. Emission Limitation -

1.41 TPM VOC, cleanup materials only

Applicable Compliance Method -  
Compliance shall be based upon record keeping as specified in Section B.III.3.

g. Emission Limitation -

16.88 TPY VOC, cleanup materials only

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section B.III.3. and shall be the sum of the twelve monthly VOC emission rates.

## VI. Miscellaneous Requirements

1. This permit allows the use of materials (typically coatings and cleanup materials) specified by the permittee in the permit to install application for this emissions unit. To fulfill the best available technology requirements of (OAC) rule 3745-31-05 and to ensure compliance with OAC rule 3745-15-07 (Air Pollution Nuisances Prohibited), the emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: MEK

TLV (ug/m<sup>3</sup>): 589,856.85

Maximum Hourly Emission Rate (lbs/hr): 8.01

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 1677

MAGLC (ug/m<sup>3</sup>): 5898.57

Physical changes or changes in the method of operation of the emissions unit that result in changes to the factors affecting the air toxic analysis could result in noncompliance with this permit to install. In order to avoid this noncompliance situation, prior to initiating any changes, permittees are required to conduct an evaluation to determine that the "Air Toxic Policy" is still satisfied. Changes that can affect the "Air Toxic Policy" include, but are not limited to, the following:

- a. Changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound

Emissions Unit ID: K002  
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 Ohio EPA will not consider any of the above-mentioned as a "modification" requiring a permit to install, if the following conditions are met:

- a. The change is not otherwise considered a "modification" under OAC Chapter 3745-31;
- b. The permittee can continue to comply with the allowable emission limitations specified in its permit to install; and,
- c. Prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy, determines that the changed emissions unit still satisfies the Air Toxic Policy, and the permittee maintains documentation that identifies the change and the results of the application of the Air Toxic Policy for the change.

For any change to the emissions unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04098 Facility ID: 0857701939

FACILITY NAME Metokote Corporation - Plant 6

FACILITY DESCRIPTION Electrocoat coating line for miscellaneous metal parts CITY/TWP Dayton

SIC CODE 3479 SCC CODE 4-02-025-01 EMISSIONS UNIT ID K001

EMISSIONS UNIT DESCRIPTION Electrocoat line #1 for metal parts, (Modification, see Section A.VI.1.)

DATE INSTALLED 11/85

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	attainment	1.88 TPM	22.57	1.88TPM	22.57
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** BAT is compliance with the applicable OAC rules specified allowable emission rates through the limitation on annual coating material usage and the use of a coating material containing no more than 3.5 lbs VOC/gal, less water and exempt solvents, as a daily volume-weighted average; 1.25 lb VOC/gal, less water and exempt solvents, as a monthly volume-weighted average; record keeping and reporting requirements; and compliance with the OEPA Air Toxic Policy.

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



**38 NEW SOURCE REVIEW FORM B**

PTI Number: 08-04098

Facility ID: 0857701939

FACILITY NAME Metokote Corporation - Plant 6

FACILITY DESCRIPTION Electrocoat coating line for miscellaneous CITY/TWP Davton

Emissions Unit ID: K002

**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):**

**Toxic Modeling**

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

**NONE**

**Permit To Install Synthetic Minor Write-Up**

**NONE**

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

**TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

**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):**

**Toxic Modeling**

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

**NONE**

**Permit To Install Synthetic Minor Write-Up**

**NONE**

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

**TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

Pollutant  
**VOC**

Tons Per Year  
**45.14**

**K001 and K002:**

**Ctg 1: Flow Control CA 584**

VOC Content:

$$7.20 \text{ lbs VOC/gal VOC} \times 0.0180 \text{ gal VOC/gal ctg} = 0.13 \text{ lb VOC/gal ctg}$$
$$0.13 \text{ lb VOC/gal ctg} / (1 - 0.6320) = 0.35 \text{ lb VOC/gal ctg, excluding water}$$

Max Hourly Rate:

Electrocoat coating line for miscellaneous  
metal parts

CITY/TWP Dayton

$$0.64 \text{ gal ctg/hr} \times 0.13 \text{ lb VOC/gal ctg} = 0.083 \text{ lb VOC/hr}$$

Max Annual Rate:

$$3820 \text{ gals ctg/yr} \times 0.13 \text{ lb VOC/gal ctg} = 496.6 \text{ lbs VOC/yr} = 0.25 \text{ TPY}$$

### Ctg 2: Paste CP 534

VOC Content:

$$7.42 \text{ lbs VOC/gal VOC} \times 0.0970 \text{ gal VOC/gal ctg} = 0.72 \text{ lb VOC/gal ctg}$$

$$0.72 \text{ lb VOC/gal ctg} / (1 - 0.5030) = 1.45 \text{ lbs VOC/gal ctg, excluding water}$$

Max Hourly Rate:

$$1.33 \text{ gal ctg/hr} \times 0.72 \text{ lb VOC/gal ctg} = 0.95 \text{ lb VOC/gal ctg}$$

Max Annual Rate:

$$8000 \text{ gals ctg/yr} \times 0.72 \text{ lb VOC/gal ctg} = 5760 \text{ lbs VOC/yr} = 2.88 \text{ TPY}$$

### Ctg 3: Resin CR 590

VOC Content:

$$6.67 \text{ lbs VOC/gal ctg} \times 0.0120 \text{ gal VOC/gal ctg} = 0.080 \text{ lb VOC/gal ctg}$$

$$0.080 \text{ lb VOC/gal ctg} / (1 - 0.6580) = 0.23 \text{ lb VOC/gal ctg, excluding water}$$

Max Hourly Rate:

$$10.66 \text{ gals ctg/hr} \times 0.080 \text{ lb VOC/gal ctg} = 0.85 \text{ lb VOC/hr}$$

Max Annual Rate:

$$64000 \text{ gals ctg/yr} \times 0.080 \text{ lbs VOC/gal ctg} = 5120 \text{ lbs VOC/yr} = 2.56 \text{ TPY}$$

### Cleanup Material: MEK

$$6.75 \text{ lbs VOC/gal cleanup} \times 417 \text{ gals cleanup/month} = 2814.75 \text{ lbs/month} = 1.41 \text{ TPM}$$

$$6.75 \text{ lbs VOC/gal cleanup} \times 5000 \text{ gals cleanup/yr} = 33750 \text{ lbs VOC/yr} = 16.88 \text{ TPY}$$

### Volume - Weighted Average VOC Content

Flow Control

$$3820 \text{ gals ctg/yr} \times (1 - 0.6320) = 1405.76 \text{ gals ctg/yr, excluding water}$$

Paste

$$8000 \text{ gals ctg/yr} \times (1 - 0.5030) = 3976 \text{ gals ctg/yr, excluding water}$$

Electrocoat coating line for miscellaneous  
metal parts

Emissions Unit ID: K002  
CITY/TWP Dayton

Resin  
64000 gals ctg/yr X ( 1 - 0.6580 ) = 21888 gals ctg/yr, excluding water

Total Volume  
1405.76 + 3976 + 21888 = 27269.76 gals ctg/yr, excluding water

Flow Control  
1405.76 / 27269 = 5%

3976 / 27269 = 15%

21888 / 27269 = 80%

0.05 (0.35 lb VOC/gal-H2O) + 0.15 (1.45 lb VOC/gal-H2O) + 0.80 (0.23 lb VOC/gal-H2O)  
= 0.422 lb VOC/gal ctg, excluding water on a volume-weighted average

**Total Emissions**  
0.083 + 0.95 + 0.85 = 1.88 lb VOC/hr, excluding cleanup  
0.25 + 2.88 + 2.56 = 5.69 TPY VOC, excluding cleanup  
5.69 TPY / 12 months = 0.47 TPM = 940 lbs/month, excluding cleanup  
5.69 + 16.88 = 22.57 TPY

**PERMIT ALLOWABLES**  
1.25 lb VOC/gal ctg, excluding water  
0.47 TPM VOC, excluding cleanup  
5.69 TPY VOC, excluding cleanup  
1.41 TPM VOC, cleanup materials  
16.88 TPY VOC, cleanup materials

**Recommended on Dec. 9, 1999 by MEC**

### **Air Toxic Modeling**

1.41 TPM cleanup emissions X 2000 lbs/ton = 2820 lbs MEK/mth  
2820 lbs MEK/mth / 22 days/mth / 16 hrs/day = 8.01 lbs MEK/hr

**4 NEW SOURCE REVIEW FORM B**

PTI Number: 08-04098

Facility ID: 0857701939

FACILITY NAME Metokote Corporation - Plant 6

FACILITY DESCRIPTION Electrocoat coating line for miscellaneous CITY/TWP Davton

Emissions Unit ID: K002

$$(8.01 \text{ lbs MEK/hr} \times 2 = 16.02 \text{ lbs MEK/hr})$$

$$8.01 \text{ lbs MEK/hr} \times 454 \text{ g/lb} \times 1 \text{ hr}/3600 \text{ sec} = 1.01 \text{ g/sec}$$

$$(16.02 \text{ lbs MEK/hr} \times 454 \text{ g/lb} \times 1 \text{ hr}/3600 \text{ sec}) = 2.02 \text{ g/sec}$$

Exhaust fan picks up all fugitive emissions from the cleanup operations. The stack has a dome on it which will reflect all the emission back towards the roof. From my discussion with Bill Spears of OEPA, this source should be modeled as an area source since the emissions are reflected back towards the roof. The company went to the stack point and measured where they could no longer feel the air from the stack. This distance was about 6 feet away from the stack.

$A = 3.14r^2$ , is the equation for the area of a circle

$$6 \text{ ft} \times 12 \text{ inches/ft} \times 1 \text{ m}/39.37 \text{ inches} = 1.83 \text{ m}$$

$$A = 3.14(1.83^2) = 10.50 \text{ m}^2$$

Emission Rate

$$1.01 \text{ g/sec} / 10.50 \text{ m}^2 = 0.096 \text{ g/sec-m}^2$$

$$(2.02 \text{ g/sec} / 10.50 \text{ m}^2 = 0.19 \text{ g/sec-m}^2)$$

Source Release Height (building height)

$$40 \text{ ft} \times 12 \text{ inches/ft} \times 1 \text{ m}/39.37 \text{ inches} = 12.19 \text{ m}$$

For worst case emissions, assume a perfect square around the circle with a 6 ft radius, we would see each side with 12 ft.

Length of Larger Side of Area

$$12 \text{ ft} \times 12 \text{ inches/ft} \times 1 \text{ m}/39.37 \text{ inches} = 3.66 \text{ m}$$

Length of Smaller Side of Area

$$12 \text{ ft} \times 12 \text{ inches/ft} \times 1 \text{ m}/39.37 \text{ inches} = 3.66 \text{ m}$$

TLV for MEK is 200 ppm

$$\text{mg/m}^3 = (200 \text{ ppm} \times 72.11 \text{ g/mole}) / 24.45 = 589.86 \text{ mg/m}^3$$

$$589.86 \text{ mg/m}^3 \times 1000 \text{ ug/mg} = 589,856.85 \text{ ug/m}^3$$

$$\text{MAGLC} = 589,856.85 \text{ ug/m}^3 / 100 = 5898.57 \text{ ug/m}^3$$

42 NEW SC

PTI Num

FACILITY

Emissions Unit ID: K002 \_\_\_\_\_

FACILITY DESCRIPTION

Electrocoat coating line for miscellaneous  
metal parts

CITY/TWP Dayton

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1677 ug/m3 < MAGLC therefore, passes toxic modeling  
(3319 ug/m3 < MAGLC therefore, passes toxic modeling)

**\*\* Note: the calculations or figures in the parenthesis represent what would happen if both emissions units vented out of one stack.**

**NSR Discussion**

FACILITY DESCRIPTION	Electrocoat coating line for miscellaneous metal parts	CITY/TWP	Dayton
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PTI 08-4098 is to modify to coating operations to include the cleanup material emissions for Metokote Corporation. Metokote Corporation is contracted to apply coatings to various metal parts for the automotive industries. The facility is located in Montgomery County which is currently in attainment for ozone. Also, this facility was a major source for Title V before this PTI due to the HAPS used in the emissions unit K003. This PTI will increase the amount of HAPS used at the facility by 33.76 TPY.

K001 and K002 were previously modified under the PTI 08-3677. However, during that application process Metokote Corporation began to include the cleanup processes and did not revise the application to include the associated emissions. PTI 08-3677 set limitations of 1.25 lbs VOC/gal ctg, excluding water and exempt solvents as a monthly volume-weighted average; 972 lbs/mth; and 5.56 TPY VOC for each line.

The emissions limitations are 3.5 lbs VOC/gallon coating, excluding water and exempt solvents, as a daily volume-weighted average; 1.25 lbs VOC/gal ctg, excluding water and exempt solvents, as a monthly volume-weighted average; 0.47 TPM and 5.69 TPY VOC, excluding cleanup; and 1.41 TPM and 16.88 TPY VOC, for only cleanup materials for each emissions unit. The current VOC content for all coatings is less than 0.50 lbs/gal, excluding water and exempt solvents, however, the company requested that we still use the 1.25 lbs/gal, excluding water and exempt solvents. This was requested to keep the lbs/gal limitation the same for the lines that use the same coatings (K004 and K005 under PTI 08-3677 use the same coatings as K001 and K002, but do not use cleanup materials). The emissions for cleanup were added separately from the coating emissions to simplify the record keeping requirements. The 3.5 lbs VOC/gallon of coating, as a daily volume-weighted average limitation was added to this PTI because the SIP rule 3745-21-09 (U)(1)(c) and 3745-21-09(B)(1) requires a daily volume-weighted average and does not allow for a monthly volume-weighted average.

Combined for emissions units K001 and K002, cleanup emissions result in 33.76 TPY of MEK. The cleanup processes only occur on these two lines because these particular parts need to be masked or cleaned prior to painting. Although these emissions are fugitive, modeling was performed for the cleanup emissions using the general exhaust fan. Bill Spires of OEPA directed me to use the area source modeling if the stack had a cap on it which would reflect the emissions back towards the roof. As far as determining an area of where the emissions are reflected back onto the roof, Bill said the company could just kinda feel for where the emissions are. Metokote did do this and found a radius of 6 ft around the stack. From the 6 ft radius circle, an assumed 12' X 12' square was used for the modeling for the length of the shortest side and the length of the longest side. Using the area choice on screen3, models were run for both the emissions rate for one unit and for the two emissions combined. The maximum ground level concentrations were 1677 ug/m<sup>3</sup> and 3319 ug/m<sup>3</sup> respectively. Even with a 2' X 2' square, ground level concentrations were very similar to the 12' X 12' square. The MAGLC for MEK is 5898 ug/m<sup>3</sup>, therefore, the emissions units pass the air toxic modeling.

Applicable rules are OAC 3745-31-05 and 3745-21-09(U)(1)(c). BAT is compliance with the applicable OAC rules specified allowable emission rates through the limitation on annual coating material usage and the use of a coating material containing no more than 3.5 lbs VOC/gal, less water and exempt solvents, as a daily volume-weighted average; 1.25 lb VOC/gal, less water and exempt solvents, as a monthly volume-weighted average; record keeping and reporting requirements; and compliance with the OEPA Air Toxic Policy.

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04098

Facility ID: 0857701939

FACILITY NAME Metokote Corporation - Plant 6

FACILITY DESCRIPTION Electrocoat coating line for miscellaneous CITY/TWP Davton

Emissions Unit ID: K002

Recommended for approval.

Fee: \$200 X 2 units X 2 (already installed) = \$800

Prepared By: Maria Cruset

Date: Dec. 10, 1999