State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

**TELE:** (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

**RE: FINAL PERMIT TO INSTALL MODIFICATION** **CERTIFIED MAIL**

**LAKE COUNTY**
**Application No: 02-19474**
**Fac ID:** 0243161230

| | |
|---|---|
| | **TOXIC REVIEW** |
| | **PSD** |
| | **SYNTHETIC MINOR** |
| | **CEMS** |
| | **MACT** |
| | **NSPS** |
| | **NESHAPS** |
| | **NETTING** |
| | **MAJOR NON-ATTAINMENT** |
| | **MODELING SUBMITTED** |
| | **GASOLINE DISPENSING FACILITY** |

**DATE: 9/8/2005**

Fusion, Incorporated
Ray Heidecker
4658 East 355th Street
Willoughby, OH 44094

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

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

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

Sincerely,

Michael W. Ahern

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

CC: **USEPA** **NEDO**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**Permit To Install** **Issue Date: 9/8/2005**

**Terms and Conditions** **Effective Date: 9/8/2005**

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 02-19474

Application Number: 02-19474

Facility ID: 0243161230

Permit Fee: **$0**

Name of Facility: Fusion, Incorporated

Person to Contact: Ray Heidecker

Address: 4658 East 355th Street
Willoughby, OH 44094

Location of proposed air contaminant source(s) [emissions unit(s)]:
**4711 Topps Industrial Parkway**
**Willoughby**, **Ohio**

Description of proposed emissions unit(s):
**Administrative modification to PTI 02-19474, issued on 12/16/04, to correct the baghouse pressure drop limitation.**

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification 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 source(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 included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Joseph P. Koncelik

Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. Permit to Install General Terms and Conditions

#### 1. Compliance Requirements

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

#### 2. Reporting Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

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

#### 3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

#### 4. Inspections and Information Requests

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

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

**5. Scheduled Maintenance/Malfunction Reporting**

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

**6. Permit Transfers**

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

**7. Air Pollution Nuisance**

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

**8. Termination of Permit to Install**

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

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

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions

may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

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

**10. Public Disclosure**

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

**11. Applicability**

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

**12. Best Available Technology**

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

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

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this

permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

**14. Construction Compliance Certification**

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

**15. Fees**

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

## B. Permit to Install Summary of Allowable Emissions

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

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

| Pollutant | Tons Per Year |
|---|---|
| PE | 61.05 |
| Lead | 8.28 |

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

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

**1.** The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| P001 - Solder paste making process equipment, including Hobart Mixers. Particulate emissions (PE) controlled by a baghouse with a rated exhaust flow capacity of 11,000 dscfm.<br><br>**This PTI supercedes the requirements of PTI #02-4444 issued on Sept. 20, 1989.** | OAC rule 3745-31-05(A)(3) | PE emissions shall be limited to:<br>0.03 grains/dscf;<br>2.83 lbs/hour; and<br>12.39 tons/year.<br><br>Visible particulate emissions from the stack shall not exceed 10% opacity as a six-minute average.<br><br>Organic compound emissions shall not exceed 1.0 lb/hour and 4.38 tons/year. |
| | OAC rule 3745-17-07(A)<br>OAC rule 3745-17-11 | The emission limitation specified by these rules are less stringent than the emission limitations established by OAC rule 3745-31-05(A)(3). |

**2. Additional Terms and Conditions**

**2.a** None.

### B. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 8 inches of water while the emissions unit is in operation.

### C. Monitoring and/or Recordkeeping Requirements

1 The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment



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shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.

2. The permit to install for this emissions unit, K003 was evaluated based on the actual materials (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 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: | ethylene glycol compounds |
| TLV (mg/m$^3$): | 100 |
| Maximum Hourly Emission Rate (lbs/hr): | 0.5 |
| Predicted 1-Hour Maximum Ground-Level Concentration (µg/m$^3$): | 136.9 |
| MAGLC (µg/m$^3$): | 2,381 |
| Pollutant: | acetone |
| TLV (mg/m$^3$): | 1,187 |
| Maximum Hourly Emission Rate (lbs/hr): | 0.5 |
| Predicted 1-Hour Maximum Ground-Level Concentration (µg/m$^3$): | 136.9 |
| MAGLC (µg/m$^3$): | 28,265 |

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 materials used (typically coatings and cleanup materials), or the use of new materials, that would result in the emission of a



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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

If 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 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 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 shows the results of the application of the "Air Toxic Policy" for the change.

## D. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the fabric filter did not comply with the allowable range specified above.

## E. Testing Requirements

1. Emission Limitation:
10% opacity, as a six-minute average for visible particulate emissions

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the allowable visible particulate emission limit shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1), using the methods and procedures specified in U.S. EPA reference Method 9.



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2. Emission Limitation:
0.03 grains/dscf; 2.83 lbs/hour; and 12.39 tons/year of particulate emissions

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the allowable grain loading based particulate emission limit shall be determined in accordance with the following method(s): Methods 1 - 5 of 40 CFR Part 60, Appendix A.

Compliance with the 2.83lbs/hour PE limit shall be determined by multiplying the 0.03 gr/dscf limit by the baghouse exhaust flow rating of 11,000 dscfm and the conversion factors 60 minutes/1.0 hour and 7,000 grains/ 1.0 lb**.**

Compliance with the12.39 tons/year limit shall be determined by multiplying the 2.83 lbs/hr PE limit by 8,760 hours/year and the conversion factor 1.0 ton/2,000 lbs.

3. Emission Limitation:
Organic compound emissions shall not exceed 1.0 lb/hour and 4.38 tons/year.

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the hourly emission limit shall be determined in accordance with the following method(s): Methods 1 - 4 and Method 25 or 25 A of 40 CFR Part 60, Appendix A.

Compliance with the 4.38 tons/year limit shall be determined by multiplying the 1.0 lbs/hr PE limit by 8,760 hours/year and the conversion factor 1.0 ton/2,000 lbs.

## F. Miscellaneous Requirements

None.



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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.

| Operations, Property, and/or Equipment | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| P002 - Base solder paste making process equipment, including a Hobart Mixers. Particulate emissions (PE) controlled by a baghouse with a rated exhaust flow capacity of 11,000 dscfm.<br><br>This PTI supercedes the requirements of PTI #02-4444 issued on Sept. 20, 1989.<br><br>. | OAC rule 3745-31-05(A)(3) | PE emissions shall be limited to:<br>0.03 grains/dscf;<br>2.83 lbs/hour; and<br>12.39 tons/year.<br><br>Visible particulate emissions from the stack shall not exceed 10% opacity as a six-minute average.<br><br>Organic compound emissions shall not exceed 1.0 lb/hour and 4.38 tons/year. |
| | OAC rule 3745-17-07(A)<br>OAC rule 3745-17-11 | The emission limitation specified by these rules are less stringent than the emission limitations established by OAC rule 3745-31-05(A)(3). |

**2. Additional Terms and Conditions**

**2.a** None.

### B. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 8 inches of water while the emissions unit is in operation.



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## C. Monitoring and/or Recordkeeping Requirements

1 The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.

2. The permit to install for this emissions unit, K003 was evaluated based on the actual materials (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 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: | ethylene glycol compounds |
| TLV (mg/m$^3$): | 100 |
| Maximum Hourly Emission Rate (lbs/hr): | 0.5 |
| Predicted 1-Hour Maximum Ground-Level Concentration (µg/m$^3$): | 136.9 |
| MAGLC (µg/m$^3$): | 2,381 |
| Pollutant: | acetone |
| TLV (mg/m$^3$): | 1,187 |
| Maximum Hourly Emission Rate (lbs/hr): | 0.5 |
| Predicted 1-Hour Maximum Ground-Level Concentration (µg/m$^3$): | 136.9 |
| MAGLC (µg/m$^3$): | 28,265 |

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



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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 materials used (typically coatings and 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

If 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 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 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 shows the results of the application of the "Air Toxic Policy" for the change.

## D. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the fabric filter did not comply with the allowable range specified above.

## E. Testing Requirements

1. Emission Limitation:
   10% opacity, as a six-minute average for visible particulate emissions

   Applicable Compliance Method:



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If required by the Ohio EPA, compliance with the allowable visible particulate emission limit shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1), using the methods and procedures specified in U.S. EPA reference Method 9.

2**.** Emission Limitation:
0.03 grains/dscf; 2.83 lbs/hour; and 12.39 tons/year of particulate emissions

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the allowable grain loading based particulate emission limit shall be determined in accordance with the following method(s): Methods 1 - 5 of 40 CFR Part 60, Appendix A.

Compliance with the 2.83lbs/hour PE limit shall be determined by multiplying the 0.03 gr/dscf limit by the baghouse exhaust flow rating of 11,000 dscfm and the conversion factors 60 minutes/1.0 hour and 7,000 grains/ 1.0 lb**.**

Compliance with the12.39 tons/year limit shall be determined by multiplying the 2.83 lbs/hr PE limit by 8,760 hours/year and the conversion factor 1.0 ton/2,000 lbs.

3. Emission Limitation:
Organic compound emissions shall not exceed 1.0 lb/hour and 4.38 tons/year.

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the hourly emission limit shall be determined in accordance with the following method(s): Methods 1 - 4 and Method 25 or 25 A of 40 CFR Part 60, Appendix A.

Compliance with the 4.38 tons/year limit shall be determined by multiplying the 1.0 lbs/hr PE limit by 8,760 hours/year and the conversion factor 1.0 ton/2,000 lbs.

## F. Miscellaneous Requirements

None.



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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.

| Operations, Property, and/or Equipment | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| P003 - Tin screening operations and related metal alloys process equipment. Particulate emissions (PE) controlled by a baghouse with a rated exhaust flow capacity of 1,800 dscfm.<br><br>This PTI supercedes the requirements of PTI #02-4444 issued on Sept. 20, 1989. | OAC rule 3745-31-05(A)(3) | PE emissions shall be limited to:<br>0.03 grains/dscf;<br>0.46 lbs/hour; and<br>2.03 tons/year.<br><br>Visible particulate emissions from the stack shall not exceed 10% opacity as a six-minute average. |
| | OAC rule 3745-17-07(A)<br>OAC rule 3745-17-11 | The emission limitation specified by these rules are less stringent than the emission limitations established by OAC rule 3745-31-05(A)(3). |

**2. Additional Terms and Conditions**

**2.a** None.

### B. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 4 to 12 inches of water while the emissions unit is in operation.

### C. Monitoring and/or Recordkeeping Requirements

1 The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's



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recommendations, instructions and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.

## D. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the fabric filter did not comply with the allowable range specified above.

## E. Testing Requirements

1. Emission Limitation:
   10% opacity, as a six-minute average for visible particulate emissions

   Applicable Compliance Method:
   If required by the Ohio EPA, compliance with the allowable visible particulate emission limit shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1), using the methods and procedures specified in U.S. EPA reference Method 9.

2. Emission Limitation:
   0.03 grains/dscf; 0.46 lbs/hour; and 2.03 tons/year of particulate emissions

   Applicable Compliance Method:
   If required by the Ohio EPA, compliance with the allowable grain loading based particulate emission limit shall be determined in accordance with the following method(s): Methods 1 - 5 of 40 CFR Part 60, Appendix A.

   Compliance with the 2.83lbs/hour PE limit shall be determined by multiplying the 0.03 gr/dscf limit by the baghouse exhaust flow rating of 1,800 dscfm and the conversion factors 60 minutes/1.0 hour and 7,000 grains/ 1.0 lb.

   Compliance with the2.03 tons/year limit shall be determined by multiplying the 0.46 lbs/hr PE limit by 8,760 hours/year and the conversion factor 1.0 ton/2,000 lbs.

## F. Miscellaneous Requirements

None.



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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.

| Operations, Property, and/or Equipment | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| P004 - Atomizing equipment, lead screening and non-lead alloys screening operations and related process equipment. Particulate emissions (PE) and lead emissions are controlled by 4 baghouse with rated exhaust flow capacities of 1,800 dscfm (2A), 8,400 dscfm (4A), 11,000 dscfm (5A) and 11,000 (6A).<br><br>This PTI supercedes the requirements of PTI #02-4444 issued on Sept. 20, 1989. | OAC rule 3745-31-05(A)(3) | PE emissions shall be limited to: 0.03 grains/dscf.<br><br>PE emissions from the stacks of baghouses 2A, 4A, 5A and 6A shall be limited to 5.45 lbs/hr and 23.88 tons per year.<br><br>Lead emissions from baghouse 6A shall be limited to:<br>0.02 grains/dscf;<br>1.89 lbs/hr; and<br>8.28 tons/year.<br><br>Visible particulate emissions from any stack shall not exceed 10% opacity as a six-minute average. |
| | OAC rule 3745-17-07(A)<br>OAC rule 3745-17-11 | The emission limitation specified by these rules are less stringent than the emission limitations established by OAC rule 3745-31-05(A)(3). |

**2. Additional Terms and Conditions**

**2.a** None.



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## B. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 8 inches of water while the emissions unit is in operation.

## C. Monitoring and/or Recordkeeping Requirements

1 The permittee shall properly operate and maintain equipment to monitor the pressure drop across each baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.

## D. Reporting Requirements

1 The permittee shall properly operate and maintain equipment to monitor the pressure drop across each baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manual(s). The permittee shall record the pressure drop across each baghouse on daily basis.

## E. Testing Requirements

1. Emission Limitation:
10% opacity, as a six-minute average for visible particulate emissions

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the allowable visible particulate emission limit shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1), using the methods and procedures specified in U.S. EPA reference Method 9.

2. Emission Limitation:
0.03 grains/dscf, 5.45 lbs/hr and 23.88 tons per year of particulate emissions.

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the allowable grain loading based particulate emission limit shall be determined in accordance with the following method(s): Methods 1 - 5 of 40 CFR Part 60, Appendix A.

Compliance with the 5.45 lbs/hour PE limit shall be determined by multiplying the 0.03 gr/dscf limit by the baghouse exhaust flow rating of 9,200 dscfm and the conversion factors 60 minutes/1.0 hour and 21,200 grains/ 1.0 lb.

Compliance with the 23.88 tons/year limit shall be determined by multiplying the 5.45 lbs/hr PE limit by 8,760 hours/year and the conversion factor 1.0 ton/2,000 lbs.


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3**.** Emission Limitation:
0.02 grains/dscf, 1.89 lbs/hr; and 8.28 tons/year lead emissions**.**

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the allowable grain loading based particulate emission limit shall be determined in accordance with the following method(s): Methods 1 - 5 of 40 CFR Part 60, Appendix A.

Compliance with the 2.37 lbs/hour PE limit shall be determined by multiplying the 0.02 gr/dscf limit by the baghouse exhaust flow rating of 11,000 dscfm and the conversion factors 60 minutes/1.0 hour and 7,000 grains/ 1.0 lb**.**

## F. Miscellaneous Requirements

None.



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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.

| Operations, Property, and/or Equipment | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| P005 - Base chemicals mixers, scale and solder alloys related process equipment. Particulate emissions (PE) controlled by a baghouse with a rated exhaust flow capacity of 9,200 dscfm. | OAC rule 3745-31-05(A)(3) | PE emissions shall be limited to:<br>0.03 grains/dscf;<br>2.37 lbs/hour; and<br>10.36 tons/year.<br><br>Visible particulate emissions from the stack shall not exceed 10% opacity as a six-minute average.<br><br>Organic compound emissions shall not exceed 1.0 lb/hour and 4.38 tons/year. |
| | OAC rule 3745-17-07(A)<br>OAC rule 3745-17-11 | The emission limitation specified by these rules are less stringent than the emission limitations established by OAC rule 3745-31-05(A)(3). |

**2. Additional Terms and Conditions**

**2.a** None.

### B. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 8 inches of water while the emissions unit is in operation.



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## C. Monitoring and/or Recordkeeping Requirements

1 The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.

2. The permit to install for this emissions unit, K003 was evaluated based on the actual materials (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 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: | ethylene glycol compounds |
| TLV (mg/m$^3$): | 100 |
| Maximum Hourly Emission Rate (lbs/hr): | 0.5 |
| Predicted 1-Hour Maximum Ground-Level Concentration (µg/m$^3$): | 136.9 |
| MAGLC (µg/m$^3$): | 2,381 |
| Pollutant: | acetone |
| TLV (mg/m$^3$): | 1,187 |
| Maximum Hourly Emission Rate (lbs/hr): | 0.5 |
| Predicted 1-Hour Maximum Ground-Level Concentration (µg/m$^3$): | 136.9 |
| MAGLC (µg/m$^3$): | 28,265 |

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



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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 materials used (typically coatings and 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

If 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 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 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 shows the results of the application of the "Air Toxic Policy" for the change.

## D. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the fabric filter did not comply with the allowable range specified above.

## E. Testing Requirements

1. Emission Limitation:
   10% opacity, as a six-minute average for visible particulate emissions

   Applicable Compliance Method:



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If required by the Ohio EPA, compliance with the allowable visible particulate emission limit shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1), using the methods and procedures specified in U.S. EPA reference Method 9.

2. Emission Limitation:
0.03 grains/dscf; 2.37 lbs/hour; and 10.36 tons/year of particulate emissions

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the allowable grain loading based particulate emission limit shall be determined in accordance with the following method(s): Methods 1 - 5 of 40 CFR Part 60, Appendix A.

Compliance with the 2.37 lbs/hour PE limit shall be determined by multiplying the 0.03 gr/dscf limit by the baghouse exhaust flow rating of 9,200 dscfm and the conversion factors 60 minutes/1.0 hour and 7,000 grains/ 1.0 lb.

Compliance with the10.36 tons/year limit shall be determined by multiplying the 2.37 lbs/hr PE limit by 8,760 hours/year and the conversion factor 1.0 ton/2,000 lbs.

3. Emission Limitation:
Organic compound emissions shall not exceed 1.0 lb/hour and 4.38 tons/year.

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the hourly emission limit shall be determined in accordance with the following method(s): Methods 1 - 4 and Method 25 or 25 A of 40 CFR Part 60, Appendix A.

Compliance with the 4.38 tons/year limit shall be determined by multiplying the 1.0 lbs/hr PE limit by 8,760 hours/year and the conversion factor 1.0 ton/2,000 lbs.

## F. Miscellaneous Requirements

None.



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