



State of Ohio Environmental Protection Agency

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

**CERTIFIED MAIL**

Street Address:

122 S. Front Street

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

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049

**Application No: 02-22157**

**Fac ID: 0278080620**

**DATE: 8/22/2006**

Penn Wheeling Closure  
Ed Richardson  
2100 Grisword NE  
Warren, OH 44483

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 of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 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. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. 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, OH 43215

Sincerely,

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

CC: USEPA

NEDO



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**Permit To Install  
Terms and Conditions**

**Issue Date: 8/22/2006  
Effective Date: 8/22/2006**

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**FINAL PERMIT TO INSTALL 02-22157**

Application Number: 02-22157  
Facility ID: 0278080620  
Permit Fee: **\$1000**  
Name of Facility: Penn Wheeling Closure  
Person to Contact: Ed Richardson  
Address: 2100 Grisword NE  
Warren, OH 44483

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**2100 Griswold, NE  
Warren, Ohio**

Description of proposed emissions unit(s):  
**Modification to 5 coating lines to obtain synthetic minor limits to avoid MACT applicability.**

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 (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 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 (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency every six months, 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. If this permit is for an emissions unit located at a Title V facility, then 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.
- d. The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

## **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 re-issuance, or modification
- 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, 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 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.

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**PTI Application: 02-22157**  
**Issued: 8/22/2006**

**Facility ID: 0278080620**

## **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 any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

## **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 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 and the State and by citizens (to the extent allowed by section 304 of the Act) 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 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 ninety (90) days after commencing operation of the source(s) covered by this permit.

#### **11. 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.

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**12. 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.

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### **13. Permit-To-Install**

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

## **B. State Only Enforceable Permit-To-Install General Terms and Conditions**

### **1. Compliance Requirements**

The emissions unit(s) identified in this Permit 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 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 (i.e., postmarked) quarterly, 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**

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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.

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**4. Authorization To Install or Modify**

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit 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.

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

This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. 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 this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit 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.

**6. 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.

**7. 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).

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**8. Construction Compliance Certification**

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) 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.

**9. 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., postmarked), 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**

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

<u>Pollutant</u>	<u>Tons Per Year</u>
Volatile Organic Compounds (VOC) emissions	149.0
Combined HAP emissions	24.9
Individual HAP emissions	9.9

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**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 - 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.

**Operations, Property, and/or Equipment - (K001) - coating line no.1**

<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
OAC rule 3745-31-05(A)(3)	see I.2.f
OAC rule 3745-21-09(B)(6)	see I.2.b
OAC rule 3745-21-09(U)	see I.2.a
OAC Rule 3745-35-07(B) OAC rule 3745-31-05(C)	see I.2.c, d, and e

**2. Additional Terms and Conditions**

- 2.a In lieu of complying with the pounds of VOC per gallon of solids limitation contained in paragraph (U) of OAC 3745-21-09, the permittee shall comply with the provisions of OAC 3745-21-09(B)(6) and shall operate and maintain an incineration system capable of capturing and controlling VOC emissions from lines K001, K002, K003, K004, and K005.
- 2.b The VOC capture and control equipment for sources K001, K002, K003, K004, and K005 shall not be less than an 81% reduction, by weight, in overall VOC emissions, and the control equipment (incinerators) shall provide an efficiency (percent destruction) of not less than 90%, by weight, for VOC emissions vented to the control equipment.
- 2.c The emissions from emissions units K001, K002, K003, K004, and K005 shall not exceed 810 pounds of VOC per day based on an average for each calendar month.
- 2.d The emission rate of VOC from emissions units K001, K002, K003, K004, and K005 shall not exceed 149 tons per year, based upon a rolling 12-month summation of the monthly emissions.

Emissions Unit ID: K001

**2.e** The permittee shall limit emissions from emissions units K001, K002, K003, K004 and K005 to:

- i. 9.9 tons/year of any individual HAP; and
- ii. 24.9 tons/year of total aggregate HAPS,

based upon a rolling, 12-month summation of the monthly emissions.

**2.f** The requirements of this rule also include compliance with the requirements of OAC rule 3745-35-07(B), OAC rule 3745-31-05(C), and OAC rule 3745-21-09(B)(6).

## II. Operational Restrictions

1. The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions units are operating at maximum loading rates, shall not be less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain continuous temperature monitors and recorder which measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder(s) shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
2. The permittee shall collect and record the following information for each day for the control equipment:
  - a. A log of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
  - b. All 3-hour blocks of time (when the emissions units were in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature of the exhaust gases during the most recent performance test that demonstrated the emissions unit was in compliance.

Emissions Unit ID: K001

- c. All 3-hour blocks of time (when the emissions units were in operation at maximum loading rate) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent performance test that demonstrated the emissions unit was in compliance.
3. The permittee shall collect and record the following information each month for the combined usage from coating lines K001, K002, K003, K004, and K005:
  - a. the name and identification number of each coating, as applied;
  - b. the VOC content of each coating, as applied, in pounds per gallon;
  - c. the number of gallons of each coating employed;
  - d. the name and identification of each cleanup material employed;
  - e. the number of gallons of each cleanup material employed;
  - f. the VOC content of each cleanup material, in pounds per gallon;
  - g. the total uncontrolled VOC emissions from all coatings and cleanup materials employed, in pounds or tons;
  - h. the calculated, controlled VOC emission rate for all coatings and cleanup materials, in pounds or tons. The controlled VOC emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance;
  - i. the total days of operation of the coating line each month; and
  - j. the average daily VOC emission rate in pounds of VOC per day. This shall be calculated by dividing (h) by (i) for each month.
4. The permittee shall collect and record for each month for emissions units K001-K005, the rolling 12-month summation of monthly VOC emissions.
5. The permittee shall collect and record the following information each month:
  - a. the name and identification number of each coating, as applied;
  - b. the individual Hazardous Air Pollutant (HAP) content for each HAP of each coating, as applied, as a weight fraction (lbs of HAPs/lb of coating);

Emissions Unit ID: K001

- c. the total combined HAP content for each coating, as applied, as a weight fraction (lbs of HAPs/lb of coating), i.e., the summation all the individual HAP contents from (b);
- d. the number of gallons of each coating employed;
- e. the density of each coating employed;
- f. the name and identification of each cleanup material employed;
- g. the individual HAP content for each HAP of each cleanup material, as applied, as a weight fraction (lbs of HAPS/lb of cleanup material);
- h. the total combined HAPs content of each cleanup material, as applied, as a weight fraction (lbs of HAPS/lb of cleanup material), i.e., the summation all the individual HAP contents from (g);
- i. the number of gallons of each cleanup material employed;
- j. the density of each cleanup material, as employed;
- k. the name and identification number of each ink, as applied;
- l. the individual HAP content for each HAP of each ink, as applied, as a weight fraction (lbs of HAPS/lb of ink);
- m. the total combined HAP content for each ink, as applied, as a weight fraction (lbs of HAPS/lb of ink), i.e., the summation all the individual HAP contents from (l);
- n. the number of pounds of each ink employed;
- o. the total uncontrolled individual HAP emissions for each HAP from all coatings, inks, and cleanup materials employed, in tons, i.e., for each HAP, the summation of [(b) times (d) times (e)] for all coatings plus the summation of [(g) times (i) times (j)] for all cleanup material plus the summation of [(l) times (n)] for all inks, divided by 2000 pounds/ton;
- p. the total uncontrolled combined HAPs emissions from all coatings and cleanup materials employed, in tons, i.e., the summation of [(c) times (d) times (e)] for all coating plus the summation of [(h) times (i) times (j)] for all cleanup material plus the summation of [(m) times (n)] for all inks, divided by 2000 pounds/ton;
- q. the calculated, controlled individual HAP emission rate for all coatings, inks, and cleanup materials, in tons, i.e., the uncontrolled individual HAP emission rate, from (o) above, multiplied by [ 1 minus the overall control efficiency for the control equipment as determined during the most recent emission test that

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demonstrated that the emissions unit was in compliance];

- r. the calculated, controlled combined HAPs emission rate for all coatings, inks, and cleanup materials, in tons, i.e., the uncontrolled combined HAPs emission rate, from (p) above, multiplied by [ 1 minus the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance] ; and
- s. the rolling, 12-month controlled individual HAP emissions (for each HAP) and the rolling, 12-month controlled combined HAPs emissions from all coatings, inks, and cleanup materials employed, in tons.

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

#### **IV. Reporting Requirements**

1. The permittee shall submit quarterly summaries of the following records:
  - a. A log of downtime for the capture (collection ) system, control device, monitoring equipment, while operating the associated emissions unit.
  - b. All 3-hour blocks of time (when the emissions units were in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature of the exhaust gases during the most recent performance test that demonstrated the emissions unit was in compliance.
  - c. All 3-hour blocks of time (when all the emissions units were in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference of the bed during the most recent performance test that demonstrated the emissions unit was in compliance.
  - d. An identification of each month where the average daily VOC emission rate exceeded 810 pounds of VOC per day for emissions units K001, K002, K003, K004, and K005.

Emissions Unit ID: K001

2. The permittee shall notify the Director (the Ohio EPA Northeast District Office) in writing of any monthly record showing the rolling 12-month summation of the monthly emissions from emissions units K001, K002, K003, K004, and K005 exceeded 149 tons per year. The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA Northeast District Office) within 45 days after the exceedance occurs.
3. The permittee shall notify the Director of any monthly record showing any deviation from the following:
  - a. the total individual HAP emissions limitation for each HAP from all coatings and cleanup materials employed, in pounds or tons per rolling 12 month period; and
  - b. the total combined HAP emissions limitation from all coatings and cleanup materials employed, in pounds or tons per rolling 12 month period.

These reports shall include a description of the deviation, as well as the corrective actions that were taken to achieve compliance. The permittee shall submit annual reports which identify all exceedances of the above limitations, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year.

4. The permittee shall submit annual reports that specify the VOC, individual HAP, and total combined HAPs emissions from emissions units K001-5 for the previous calendar year. These reports shall be submitted by January 31 of each year.

## **V. Testing Requirements**

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 2 years after permit issuance and within 6 months prior to permit renewal.
  - b. The emission testing shall be conducted to demonstrate compliance with the VOC capture efficiency and control efficiency requirements specified in Section A.1.2.b.
  - c. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Northeast District Office.
  - d. The capture efficiency is based upon the results of a performance test conducted on the capture system completed in March 1999, showing a capture efficiency of 97.5%. The Ohio EPA may require the test be redone if changes to the capture system occur.

Emissions Unit ID: K001

The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.)

- e. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10 or an approved

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alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

2. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s).

3. Emission Limitation:  
810 pounds of VOC per day based on an average for each calendar month.

Applicable Compliance Method:

Compliance shall be based upon the recordkeeping specified in Section A.III.3.

4. Emission Limitation:  
149 tons per year VOC based on a rolling 12-month summation of monthly emissions

Applicable Compliance Method:

Compliance shall be based upon the monthly recordkeeping requirements specified in Section A.III.4. of this permit.

5. Emission Limitation:  
9.9 tons/year of any individual HAP; and 24.9 tons/year of total aggregate HAPS.

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Applicable Compliance Method

Compliance shall be based upon the summation of the monthly records from the record keeping specified in Section A. III.5

6. The VOC content of each coating and cleanup material used shall be based upon the use of USEPA Method 24 as required in OAC 3745-21-10(B)(5) .

**VI. Miscellaneous Requirements**

None

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**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.

**Operations, Property, and/or Equipment - (K001) - coating line no.1**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC 3745-31-05 PTI No. 02-11171	see B.I.2.a

**2. Additional Terms and Conditions**

- 2.a The maximum emissions from emissions units K001, K002, K003, K004, and K005 in any one day shall not exceed 1200 pounds of VOC per day. This limitation was established in accordance with Ohio EPA's "Air Toxics Policy" and is based on the formulation data, maximum production rates, and design parameters of the emissions units exhaust system, as specified in the PTI application.

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

1. Compliance with the emission limitation(s) in Section B.I.2. of these terms and conditions shall be determined in accordance with the following method(s):

**Penn Wheeling Closure**  
**DTI Application: 02 22157**

**Facility ID: 0278080620**

Emissions Unit ID: K001

- a. Emission Limitation:  
1200 pounds of VOC per day

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Applicable Compliance Method:

Compliance is based upon a one time calculation using maximum capabilities of the coating equipment and permit allowable overall control efficiency.

**VI. Miscellaneous Requirements**

None

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**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.

**Operations, Property, and/or Equipment - (K002) - coating line no. 2, single press and coater**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	see I.2.f
OAC rule 3745-21-09(B)(6)	see I.2.b
OAC rule 3745-21-09(U)	see I.2.a
OAC Rule 3745-35-07(B)	see I.2.c, d, and e
OAC rule 3745-31-05(C)	

**2. Additional Terms and Conditions**

- 2.a In lieu of complying with the pounds of VOC per gallon of solids limitation contained in paragraph (U) of OAC 3745-21-09, the permittee shall comply with the provisions of OAC 3745-21-09(B)(6) and shall operate and maintain an incineration system capable of capturing and controlling VOC emissions from lines K001, K002, K003, K004, and K005.
- 2.b The VOC capture and control equipment for sources K001, K002, K003, K004, and K005 shall not be less than an 81% reduction, by weight, in overall VOC emissions, and the control equipment ( incinerators) shall provide an efficiency (percent destruction) of not less than 90%, by weight, for VOC emissions vented to the control equipment.
- 2.c The emissions from emissions units K001, K002, K003, K004, and K005 shall not exceed 810 pounds of VOC per day based on an average for each calendar month.
- 2.d The emission rate of VOC from emissions units K001, K002, K003, K004, and K005 shall not exceed 149 tons per year, based upon a rolling 12-month

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Emissions Unit ID: K002

summation of the monthly emissions.

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**2.e** The permittee shall limit emissions from emissions units K001, K002, K003, K004 and K005 to:

- i. 9.9 tons/year of any individual HAP; and
- ii. 24.9 tons/year of total aggregate HAPS,

based upon a rolling, 12-month summation of the monthly emissions.

**2.f** The requirements of this rule also include compliance with the requirements of OAC rule 3745-35-07(B), OAC rule 3745-31-05(C), and OAC rule 3745-21-09(B)(6).

## **II. Operational Restrictions**

1. The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions units are operating at maximum loading rates, shall not be less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.

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

1. The permittee shall operate and maintain continuous temperature monitors and recorder which measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder(s) shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
2. The permittee shall collect and record the following information for each day for the control equipment:
  - a. A log of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

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- b. All 3-hour blocks of time (when the emissions units were in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature of the exhaust gases during the most recent performance test that demonstrated the emissions unit was in compliance.
    - c. All 3-hour blocks of time (when the emissions units were in operation at maximum loading rate) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent performance test that demonstrated the emissions unit was in compliance.
3. The permittee shall collect and record the following information each month for the combined usage from coating lines K001, K002, K003, K004, and K005:
  - a. the name and identification number of each coating, as applied;
  - b. the VOC content of each coating, as applied, in pounds per gallon;
  - c. the number of gallons of each coating employed;
  - d. the name and identification of each cleanup material employed;
  - e. the number of gallons of each cleanup material employed;
  - f. the VOC content of each cleanup material, in pounds per gallon;
  - g. the total uncontrolled VOC emissions from all coatings and cleanup materials employed, in pounds or tons;
  - h. the calculated, controlled VOC emission rate for all coatings and cleanup materials, in pounds or tons. The controlled VOC emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance;
  - i. the total days of operation of the coating line each month; and
  - j. the average daily VOC emission rate in pounds of VOC per day. This shall be calculated by dividing (h) by (i) for each month.
4. The permittee shall collect and record for each month for emissions units K001-K005, the rolling 12-month summation of monthly VOC emissions.
5. The permittee shall collect and record the following information each month:

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- a. the name and identification number of each coating, as applied;
- b. the individual Hazardous Air Pollutant (HAP) content for each HAP of each coating, as applied, as a weight fraction (lbs of HAPs/lb of coating);
- c. the total combined HAP content for each coating, as applied, as a weight fraction (lbs of HAPs/lb of coating), i.e., the summation all the individual HAP contents from (b);
- d. the number of gallons of each coating employed;
- e. the density of each coating employed;
- f. the name and identification of each cleanup material employed;
- g. the individual HAP content for each HAP of each cleanup material, as applied, as a weight fraction (lbs of HAPS/lb of cleanup material);
- h. the total combined HAPs content of each cleanup material, as applied, as a weight fraction (lbs of HAPS/lb of cleanup material), i.e., the summation all the individual HAP contents from (g);
- i. the number of gallons of each cleanup material employed;
- j. the density of each cleanup material, as employed;
- k. the name and identification number of each ink, as applied;
- l. the individual HAP content for each HAP of each ink, as applied, as a weight fraction (lbs of HAPS/lb of ink);
- m. the total combined HAP content for each ink, as applied, as a weight fraction (lbs of HAPS/lb of ink), i.e., the summation all the individual HAP contents from (l);
- n. the number of pounds of each ink employed;
- o. the total uncontrolled individual HAP emissions for each HAP from all coatings, inks, and cleanup materials employed, in tons, i.e., for each HAP, the summation of [(b) times (d) times (e)] for all coatings plus the summation of [(g) times (i)

Emissions Unit ID: K002

times (j)] for all cleanup material plus the summation of [(l) times (n)] for all inks, divided by 2000 pounds/ton;

- p. the total uncontrolled combined HAPs emissions from all coatings and cleanup materials employed, in tons, i.e., the summation of [(c) times (d) times (e)] for all coating plus the summation of [(h) times (i) times (j)] for all cleanup material plus the summation of [(m) times (n)] for all inks, divided by 2000 pounds/ton;
- q. the calculated, controlled individual HAP emission rate for all coatings, inks, and cleanup materials, in tons, i.e., the uncontrolled individual HAP emission rate, from (o) above, multiplied by [ 1 minus the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance];
- r. the calculated, controlled combined HAPs emission rate for all coatings, inks, and cleanup materials, in tons, i.e., the uncontrolled combined HAPs emission rate, from (p) above, multiplied by [ 1 minus the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance] ; and
- s. the rolling, 12-month controlled individual HAP emissions (for each HAP) and the rolling, 12-month controlled combined HAPs emissions from all coatings, inks, and cleanup materials employed, in tons.

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

#### **IV. Reporting Requirements**

1. The permittee shall submit quarterly summaries of the following records:
  - a. A log of downtime for the capture (collection ) system, control device, monitoring equipment, while operating the associated emissions unit.
  - b. All 3-hour blocks of time (when the emissions units were in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature of the exhaust gases during the most recent performance test that demonstrated the emissions unit was in compliance.
  - c. All 3-hour blocks of time (when all the emissions units were in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference of the bed during the most

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recent performance test that demonstrated the emissions unit was in compliance.

- d. An identification of each month where the average daily VOC emission rate exceeded 810 pounds of VOC per day for emissions units K001, K002, K003, K004, and K005.
2. The permittee shall notify the Director (the Ohio EPA Northeast District Office) in writing of any monthly record showing the rolling 12-month summation of the monthly emissions from emissions units K001, K002, K003, K004, and K005 exceeded 149 tons per year. The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA Northeast District Office) within 45 days after the exceedance occurs.
  3. The permittee shall notify the Director of any monthly record showing any deviation from the following:
    - a. the total individual HAP emissions limitation for each HAP from all coatings and cleanup materials employed, in pounds or tons per rolling 12 month period; and
    - b. the total combined HAP emissions limitation from all coatings and cleanup materials employed, in pounds or tons per rolling 12 month period.

These reports shall include a description of the deviation, as well as the corrective actions that were taken to achieve compliance. The permittee shall submit annual reports which identify all exceedances of the above limitations, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year.

4. The permittee shall submit annual reports that specify the VOC, individual HAP, and total combined HAPs emissions from emissions units K001-5 for the previous calendar year. These reports shall be submitted by January 31 of each year.

## **V. Testing Requirements**

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 2 years after permit issuance and within 6 months prior to permit renewal.

Emissions Unit ID: K002

- b. The emission testing shall be conducted to demonstrate compliance with the VOC capture efficiency and control efficiency requirements specified in Section A.1.2.b.
- c. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Northeast District Office.
- d. The capture efficiency is based upon the results of a performance test conducted on the capture system completed in March 1999, showing a capture efficiency of 97.5%. The Ohio EPA may require the test be redone if changes to the capture system occur.

The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.)

- e. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10 or an approved alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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2. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s).

3. Emission Limitation:  
810 pounds of VOC per day based on an average for each calendar month.

Applicable Compliance Method:  
Compliance shall be based upon the recordkeeping specified in Section A.III.3.

4. Emission Limitation:  
149 tons per year VOC based on a rolling 12-month summation of monthly emissions

Applicable Compliance Method:  
Compliance shall be based upon the monthly recordkeeping requirements specified in Section A.III.4. of this permit.

5. Emission Limitation:  
9.9 tons/year of any individual HAP; and 24.9 tons/year of total aggregate HAPS.

Applicable Compliance Method  
Compliance shall be based upon the summation of the monthly records from the record keeping specified in Section A. III.5

6. The VOC content of each coating and cleanup material used shall be based upon the use of USEPA Method 24 as required in OAC 3745-21-10(B)(5) .

## **VI. Miscellaneous Requirements**

None

Emissions Unit ID: K002

**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.

**Operations, Property, and/or Equipment - (K002) - coating line no. 2, single press and coater**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC 3745-31-05 PTI No. 02-11171	see B.I.2.a

**2. Additional Terms and Conditions**

- 2.a The maximum emissions from emissions units K001, K002, K003, K004, and K005 in any one day shall not exceed 1200 pounds of VOC per day. This limitation was established in accordance with Ohio EPA's "Air Toxics Policy" and is based on the formulation data, maximum production rates, and design parameters of the emissions units exhaust system, as specified in the PTI application.

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

1. Compliance with the emission limitation(s) in Section B.I.2. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
1200 pounds of VOC per day

**Issued: 8/22/2006**

Applicable Compliance Method:

Compliance is based upon a one time calculation using maximum capabilities of the coating equipment and permit allowable overall control efficiency.

**VI. Miscellaneous Requirements**

None

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**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.

**Operations, Property, and/or Equipment - (K003) - coating line no. 3, two presses and coater**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	see I.2.f
OAC rule 3745-21-09(B)(6)	see I.2.b
OAC rule 3745-21-09(U)	see I.2.a
OAC Rule 3745-35-07(B)	see I.2.c, d, and e
OAC rule 3745-31-05(C)	

**2. Additional Terms and Conditions**

- 2.a In lieu of complying with the pounds of VOC per gallon of solids limitation contained in paragraph (U) of OAC 3745-21-09, the permittee shall comply with the provisions of OAC 3745-21-09(B)(6) and shall operate and maintain an incineration system capable of capturing and controlling VOC emissions from lines K001, K002, K003, K004, and K005.
- 2.b The VOC capture and control equipment for sources K001, K002, K003, K004, and K005 shall not be less than an 81% reduction, by weight, in overall VOC emissions, and the control equipment ( incinerators) shall provide an efficiency (percent destruction) of not less than 90%, by weight, for VOC emissions vented to the control equipment.
- 2.c The emissions from emissions units K001, K002, K003, K004, and K005 shall not exceed 810 pounds of VOC per day based on an average for each calendar month.
- 2.d The emission rate of VOC from emissions units K001, K002, K003, K004, and K005 shall not exceed 149 tons per year, based upon a rolling 12-month

summation of the monthly emissions.

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**2.e** The permittee shall limit emissions from emissions units K001, K002, K003, K004 and K005 to:

- i. 9.9 tons/year of any individual HAP; and
- ii. 24.9 tons/year of total aggregate HAPS,

based upon a rolling, 12-month summation of the monthly emissions.

**2.f** The requirements of this rule also include compliance with the requirements of OAC rule 3745-35-07(B), OAC rule 3745-31-05(C), and OAC rule 3745-21-09(B)(6).

## **II. Operational Restrictions**

1. The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions units are operating at maximum loading rates, shall not be less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.

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

1. The permittee shall operate and maintain continuous temperature monitors and recorder which measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder(s) shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
2. The permittee shall collect and record the following information for each day for the control equipment:
  - a. A log of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

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- b. All 3-hour blocks of time (when the emissions units were in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature of the exhaust gases during the most recent performance test that demonstrated the emissions unit was in compliance.
    - c. All 3-hour blocks of time (when the emissions units were in operation at maximum loading rate) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent performance test that demonstrated the emissions unit was in compliance.
3. The permittee shall collect and record the following information each month for the combined usage from coating lines K001, K002, K003, K004, and K005:
  - a. the name and identification number of each coating, as applied;
  - b. the VOC content of each coating, as applied, in pounds per gallon;
  - c. the number of gallons of each coating employed;
  - d. the name and identification of each cleanup material employed;
  - e. the number of gallons of each cleanup material employed;
  - f. the VOC content of each cleanup material, in pounds per gallon;
  - g. the total uncontrolled VOC emissions from all coatings and cleanup materials employed, in pounds or tons;
  - h. the calculated, controlled VOC emission rate for all coatings and cleanup materials, in pounds or tons. The controlled VOC emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance;
  - i. the total days of operation of the coating line each month; and
  - j. the average daily VOC emission rate in pounds of VOC per day. This shall be

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calculated by dividing (h) by (i) for each month.

4. The permittee shall collect and record for each month for emissions units K001-K005, the rolling 12-month summation of monthly VOC emissions.
5. The permittee shall collect and record the following information each month:
  - a. the name and identification number of each coating, as applied;
  - b. the individual Hazardous Air Pollutant (HAP) content for each HAP of each coating, as applied, as a weight fraction (lbs of HAPs/lb of coating);
  - c. the total combined HAP content for each coating, as applied, as a weight fraction (lbs of HAPs/lb of coating), i.e., the summation all the individual HAP contents from (b);
  - d. the number of gallons of each coating employed;
  - e. the density of each coating employed;
  - f. the name and identification of each cleanup material employed;
  - g. the individual HAP content for each HAP of each cleanup material, as applied, as a weight fraction (lbs of HAPS/lb of cleanup material);
  - h. the total combined HAPs content of each cleanup material, as applied, as a weight fraction (lbs of HAPS/lb of cleanup material), i.e., the summation all the individual HAP contents from (g);
  - i. the number of gallons of each cleanup material employed;
  - j. the density of each cleanup material, as employed;
  - k. the name and identification number of each ink, as applied;
  - l. the individual HAP content for each HAP of each ink, as applied, as a weight fraction (lbs of HAPS/lb of ink);
  - m. the total combined HAP content for each ink, as applied, as a weight fraction (lbs of HAPS/lb of ink), i.e., the summation all the individual HAP contents from (l);

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- n. the number of pounds of each ink employed;
- o. the total uncontrolled individual HAP emissions for each HAP from all coatings, inks, and cleanup materials employed, in tons, i.e., for each HAP, the summation of [(b) times (d) times (e)] for all coatings plus the summation of [(g) times (i) times (j)] for all cleanup material plus the summation of [(l) times (n)] for all inks, divided by 2000 pounds/ton;
- p. the total uncontrolled combined HAPs emissions from all coatings and cleanup materials employed, in tons, i.e., the summation of [(c) times (d) times (e)] for all coating plus the summation of [(h) times (i) times (j)] for all cleanup material plus the summation of [(m) times (n)] for all inks, divided by 2000 pounds/ton;
- q. the calculated, controlled individual HAP emission rate for all coatings, inks, and cleanup materials, in tons, i.e., the uncontrolled individual HAP emission rate, from (o) above, multiplied by [ 1 minus the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance];
- r. the calculated, controlled combined HAPs emission rate for all coatings, inks, and cleanup materials, in tons, i.e., the uncontrolled combined HAPs emission rate, from (p) above, multiplied by [ 1 minus the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance] ; and
- s. the rolling, 12-month controlled individual HAP emissions (for each HAP) and the rolling, 12-month controlled combined HAPs emissions from all coatings, inks, and cleanup materials employed, in tons.

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

#### **IV. Reporting Requirements**

1. The permittee shall submit quarterly summaries of the following records:
  - a. A log of downtime for the capture (collection ) system, control device, monitoring equipment, while operating the associated emissions unit.
  - b. All 3-hour blocks of time (when the emissions units were in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average

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temperature of the exhaust gases during the most recent performance test that demonstrated the emissions unit was in compliance.

- c. All 3-hour blocks of time (when all the emissions units were in operation at maximum loading rate) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference of the bed during the most recent performance test that demonstrated the emissions unit was in compliance.
  - d. An identification of each month where the average daily VOC emission rate exceeded 810 pounds of VOC per day for emissions units K001, K002, K003, K004, and K005.
2. The permittee shall notify the Director (the Ohio EPA Northeast District Office) in writing of any monthly record showing the rolling 12-month summation of the monthly emissions from emissions units K001, K002, K003, K004, and K005 exceeded 149 tons per year. The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA Northeast District Office) within 45 days after the exceedance occurs.
  3. The permittee shall notify the Director of any monthly record showing any deviation from the following:
    - a. the total individual HAP emissions limitation for each HAP from all coatings and cleanup materials employed, in pounds or tons per rolling 12 month period; and
    - b. the total combined HAP emissions limitation from all coatings and cleanup materials employed, in pounds or tons per rolling 12 month period.

These reports shall include a description of the deviation, as well as the corrective actions that were taken to achieve compliance. The permittee shall submit annual reports which identify all exceedances of the above limitations, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year.

4. The permittee shall submit annual reports that specify the VOC, individual HAP, and total combined HAPs emissions from emissions units K001-5 for the previous calendar year. These reports shall be submitted by January 31 of each year.

## **V. Testing Requirements**

Emissions Unit ID: K003

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 2 years after permit issuance and within 6 months prior to permit renewal.
  - b. The emission testing shall be conducted to demonstrate compliance with the VOC capture efficiency and control efficiency requirements specified in Section A.1.2.b.
  - c. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Northeast District Office.
  - d. The capture efficiency is based upon the results of a performance test conducted on the capture system completed in March 1999, showing a capture efficiency of 97.5%. The Ohio EPA may require the test be redone if changes to the capture system occur.

The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.)

- e. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10 or an approved alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Emissions Unit ID: K003

Personnel from the Ohio EPA Northeast District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

2. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s).

3. Emission Limitation:  
810 pounds of VOC per day based on an average for each calendar month.

Applicable Compliance Method:

Compliance shall be based upon the recordkeeping specified in Section A.III.3.

4. Emission Limitation:  
149 tons per year VOC based on a rolling 12-month summation of monthly emissions

Applicable Compliance Method:

Compliance shall be based upon the monthly recordkeeping requirements specified in Section A.III.4. of this permit.

5. Emission Limitation:  
9.9 tons/year of any individual HAP; and 24.9 tons/year of total aggregate HAPS.

Applicable Compliance Method

Compliance shall be based upon the summation of the monthly records from the record keeping specified in Section A. III.5

6. The VOC content of each coating and cleanup material used shall be based upon the use of USEPA Method 24 as required in OAC 3745-21-10(B)(5) .

## **VI. Miscellaneous Requirements**

None

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**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.

**Operations, Property, and/or Equipment - (K003) - coating line no. 3, two presses and coater**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC 3745-31-05 PTI No. 02-11171	see B.I.2.a

2. **Additional Terms and Conditions**

- 2.a The maximum emissions from emissions units K001, K002, K003, K004, and K005 in any one day shall not exceed 1200 pounds of VOC per day. This limitation was established in accordance with Ohio EPA's "Air Toxics Policy" and is based on the formulation data, maximum production rates, and design parameters of the emissions units exhaust system, as specified in the PTI application.

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

1. Compliance with the emission limitation(s) in Section B.I.2. of these terms and

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conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation:  
1200 pounds of VOC per day

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Applicable Compliance Method:

Compliance is based upon a one time calculation using maximum capabilities of the coating equipment and permit allowable overall control efficiency.

**VI. Miscellaneous Requirements**

None

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**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.

**Operations, Property, and/or Equipment - (K004) - coating line no. 4, press and coater**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	see I.2.f
OAC rule 3745-21-09(B)(6)	see I.2.b
OAC rule 3745-21-09(U)	see I.2.a
OAC Rule 3745-35-07(B)	see I.2.c, d, and e
OAC Rule 3745-31-05(C)	

**2. Additional Terms and Conditions**

- 2.a In lieu of complying with the pounds of VOC per gallon of solids limitation contained in paragraph (U) of OAC 3745-21-09, the permittee shall comply with the provisions of OAC 3745-21-09(B)(6) and shall operate and maintain an incineration system capable of capturing and controlling VOC emissions from lines K001, K002, K003, K004, and K005.
- 2.b The VOC capture and control equipment for sources K001, K002, K003, K004, and K005 shall not be less than an 81% reduction, by weight, in overall VOC emissions, and the control equipment ( incinerators) shall provide an efficiency (percent destruction) of not less than 90%, by weight, for VOC emissions vented to the control equipment.
- 2.c The emissions from emissions units K001, K002, K003, K004, and K005 shall not exceed 810 pounds of VOC per day based on an average for each calendar month.
- 2.d The emission rate of VOC from emissions units K001, K002, K003, K004, and K005 shall not exceed 149 tons per year, based upon a rolling 12-month

summation of the monthly emissions.

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**2.e** The permittee shall limit emissions from emissions units K001, K002, K003, K004 and K005 to:

- i. 9.9 tons/year of any individual HAP; and
- ii. 24.9 tons/year of total aggregate HAPS,

based upon a rolling, 12-month summation of the monthly emissions.

**2.f** The requirements of this rule also include compliance with the requirements of OAC rule 3745-35-07(B), OAC rule 3745-31-05(C), and OAC rule 3745-21-09(B)(6).

## **II. Operational Restrictions**

1. The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions units are operating at maximum loading rates, shall not be less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.

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

1. The permittee shall operate and maintain continuous temperature monitors and recorder which measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder(s) shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
2. The permittee shall collect and record the following information for each day for the control equipment:
  - a. A log of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

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- b. All 3-hour blocks of time (when the emissions units were in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature of the exhaust gases during the most recent performance test that demonstrated the emissions unit was in compliance.
    - c. All 3-hour blocks of time (when the emissions units were in operation at maximum loading rate) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent performance test that demonstrated the emissions unit was in compliance.
  3. The permittee shall collect and record the following information each month for the combined usage from coating lines K001, K002, K003, K004, and K005:
    - a. the name and identification number of each coating, as applied;
    - b. the VOC content of each coating, as applied, in pounds per gallon;
    - c. the number of gallons of each coating employed;
    - d. the name and identification of each cleanup material employed;
    - e. the number of gallons of each cleanup material employed;
    - f. the VOC content of each cleanup material, in pounds per gallon;
    - g. the total uncontrolled VOC emissions from all coatings and cleanup materials employed, in pounds or tons;
    - h. the calculated, controlled VOC emission rate for all coatings and cleanup materials, in pounds or tons. The controlled VOC emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance;
    - i. the total days of operation of the coating line each month; and
    - j. the average daily VOC emission rate in pounds of VOC per day. This shall be

Emissions Unit ID: K004

calculated by dividing (h) by (i) for each month.

4. The permittee shall collect and record for each month for emissions units K001-K005, the rolling 12-month summation of monthly VOC emissions.
5. The permittee shall collect and record the following information each month:
  - a. the name and identification number of each coating, as applied;
  - b. the individual Hazardous Air Pollutant (HAP) content for each HAP of each coating, as applied, as a weight fraction (lbs of HAPs/lb of coating);
  - c. the total combined HAP content for each coating, as applied, as a weight fraction (lbs of HAPs/lb of coating), i.e., the summation all the individual HAP contents from (b);
  - d. the number of gallons of each coating employed;
  - e. the density of each coating employed;
  - f. the name and identification of each cleanup material employed;
  - g. the individual HAP content for each HAP of each cleanup material, as applied, as a weight fraction (lbs of HAPS/lb of cleanup material);
  - h. the total combined HAPs content of each cleanup material, as applied, as a weight fraction (lbs of HAPS/lb of cleanup material), i.e., the summation all the individual HAP contents from (g);
  - i. the number of gallons of each cleanup material employed;
  - j. the density of each cleanup material, as employed;
  - k. the name and identification number of each ink, as applied;
  - l. the individual HAP content for each HAP of each ink, as applied, as a weight fraction (lbs of HAPS/lb of ink);
  - m. the total combined HAP content for each ink, as applied, as a weight fraction (lbs of HAPS/lb of ink), i.e., the summation all the individual HAP contents from (l);
  - n. the number of pounds of each ink employed;
  - o. the total uncontrolled individual HAP emissions for each HAP from all coatings, inks, and cleanup materials employed, in tons, i.e., for each HAP, the summation of [(b) times (d) times (e)] for all coatings plus the summation of [(g) times (i)]

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- times (j)] for all cleanup material plus the summation of [(l) times (n)] for all inks, divided by 2000 pounds/ton;
- p. the total uncontrolled combined HAPs emissions from all coatings and cleanup materials employed, in tons, i.e., the summation of [(c) times (d) times (e)] for all coating plus the summation of [(h) times (i) times (j)] for all cleanup material plus the summation of [(m) times (n)] for all inks, divided by 2000 pounds/ton;
  - q. the calculated, controlled individual HAP emission rate for all coatings, inks, and cleanup materials, in tons, i.e., the uncontrolled individual HAP emission rate, from (o) above, multiplied by [ 1 minus the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance];
  - r. the calculated, controlled combined HAPs emission rate for all coatings, inks, and cleanup materials, in tons, i.e., the uncontrolled combined HAPs emission rate, from (p) above, multiplied by [ 1 minus the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance] ; and
  - s. the rolling, 12-month controlled individual HAP emissions (for each HAP) and the rolling, 12-month controlled combined HAPs emissions from all coatings, inks, and cleanup materials employed, in tons.

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

#### IV. Reporting Requirements

1. The permittee shall submit quarterly summaries of the following records:
  - a. A log of downtime for the capture (collection ) system, control device, monitoring equipment, while operating the associated emissions unit.
  - b. All 3-hour blocks of time (when the emissions units were in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average

Emissions Unit ID: K004

temperature of the exhaust gases during the most recent performance test that demonstrated the emissions unit was in compliance.

- c. All 3-hour blocks of time (when all the emissions units were in operation at maximum loading rate) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference of the bed during the most recent performance test that demonstrated the emissions unit was in compliance.
  - d. An identification of each month where the average daily VOC emission rate exceeded 810 pounds of VOC per day for emissions units K001, K002, K003, K004, and K005.
2. The permittee shall notify the Director (the Ohio EPA Northeast District Office) in writing of any monthly record showing the rolling 12-month summation of the monthly emissions from emissions units K001, K002, K003, K004, and K005 exceeded 149 tons per year. The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA Northeast District Office) within 45 days after the exceedance occurs.
  3. The permittee shall notify the Director of any monthly record showing any deviation from the following:
    - a. the total individual HAP emissions limitation for each HAP from all coatings and cleanup materials employed, in pounds or tons per rolling 12 month period; and
    - b. the total combined HAP emissions limitation from all coatings and cleanup materials employed, in pounds or tons per rolling 12 month period.

These reports shall include a description of the deviation, as well as the corrective actions that were taken to achieve compliance. The permittee shall submit annual reports which identify all exceedances of the above limitations, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year.
  4. The permittee shall submit annual reports that specify the VOC, individual HAP, and total combined HAPs emissions from emissions units K001-5 for the previous calendar year. These reports shall be submitted by January 31 of each year.

## **V. Testing Requirements**

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 2 years after permit issuance and within 6 months prior to permit renewal.

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- b. The emission testing shall be conducted to demonstrate compliance with the VOC capture efficiency and control efficiency requirements specified in Section A.1.2.b.
- c. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Northeast District Office.
- d. The capture efficiency is based upon the results of a performance test conducted on the capture system completed in March 1999, showing a capture efficiency of 97.5%. The Ohio EPA may require the test be redone if changes to the capture system occur.

The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.)

- e. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10 or an approved alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Emissions Unit ID: K004

Personnel from the Ohio EPA Northeast District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

2. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s).

3. Emission Limitation:  
810 pounds of VOC per day based on an average for each calendar month.

Applicable Compliance Method:

Compliance shall be based upon the recordkeeping specified in Section A.III.3.

4. Emission Limitation:  
149 tons per year VOC based on a rolling 12-month summation of monthly emissions

Applicable Compliance Method:

Compliance shall be based upon the monthly recordkeeping requirements specified in Section A.III.4. of this permit.

5. Emission Limitation:  
9.9 tons/year of any individual HAP; and 24.9 tons/year of total aggregate HAPS.

Applicable Compliance Method

Compliance shall be based upon the summation of the monthly records from the record keeping specified in Section A. III.5

6. The VOC content of each coating and cleanup material used shall be based upon the use of USEPA Method 24 as required in OAC 3745-21-10(B)(5) .

## **VI. Miscellaneous Requirements**

None

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**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.

**Operations, Property, and/or Equipment - (K004) - coating line no. 4, press and coater**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC 3745-31-05 PTI No. 02-11171	see B.I.2.a

**2. Additional Terms and Conditions**

- 2.a The maximum emissions from emissions units K001, K002, K003, K004, and K005 in any one day shall not exceed 1200 pounds of VOC per day. This limitation was established in accordance with Ohio EPA's "Air Toxics Policy" and is based on the formulation data, maximum production rates, and design parameters of the emissions units exhaust system, as specified in the PTI application.

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

1. Compliance with the emission limitation(s) in Section B.I.2. of these terms and

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conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation:  
1200 pounds of VOC per day

Emissions Unit ID: K004

Applicable Compliance Method:

Compliance is based upon a one time calculation using maximum capabilities of the coating equipment and permit allowable overall control efficiency.

**VI. Miscellaneous Requirements**

None

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**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.

**Operations, Property, and/or Equipment - (K005) - coating line no. 5**

<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
OAC rule 3745-31-05	see I.2.f
OAC rule 3745-21-09(B)(6)	see I.2.b
OAC rule 3745-21-09(U)	see I.2.a
OAC Rule 3745-35-07(B) OAC rule 3745-31-05(C)	see I.2.c, d, and e

**2. Additional Terms and Conditions**

- 2.a In lieu of complying with the pounds of VOC per gallon of solids limitation contained in paragraph (U) of OAC 3745-21-09, the permittee shall comply with the provisions of OAC 3745-21-09(B)(6) and shall operate and maintain an incineration system capable of capturing and controlling VOC emissions from lines K001, K002, K003, K004, and K005.
- 2.b The VOC capture and control equipment for sources K001, K002, K003, K004, and K005 shall not be less than an 81% reduction, by weight, in overall VOC emissions, and the control equipment ( incinerators) shall provide an efficiency (percent destruction) of not less than 90%, by weight, for VOC emissions vented to the control equipment.
- 2.c The emissions from emissions units K001, K002, K003, K004, and K005 shall not exceed 810 pounds of VOC per day based on an average for each calendar month.
- 2.d The emission rate of VOC from emissions units K001, K002, K003, K004, and K005 shall not exceed 149 tons per year, based upon a rolling 12-month summation of the monthly emissions.

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Emissions Unit ID: K005

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**2.e** The permittee shall limit emissions from emissions units K001, K002, K003, K004 and K005 to:

- i. 9.9 tons/year of any individual HAP; and
- ii. 24.9 tons/year of total aggregate HAPS,

based upon a rolling, 12-month summation of the monthly emissions.

**2.f** The requirements of this rule also include compliance with the requirements of OAC rule 3745-35-07(B), OAC rule 3745-31-05(C), and OAC rule 3745-21-09(B)(6).

## **II. Operational Restrictions**

1. The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions units are operating at maximum loading rates, shall not be less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.

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

1. The permittee shall operate and maintain continuous temperature monitors and recorder which measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder(s) shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
2. The permittee shall collect and record the following information for each day for the control equipment:
  - a. A log of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

Emissions Unit ID: K005

- b. All 3-hour blocks of time (when the emissions units were in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature of the exhaust gases during the most recent performance test that demonstrated the emissions unit was in compliance.
    - c. All 3-hour blocks of time (when the emissions units were in operation at maximum loading rate) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent performance test that demonstrated the emissions unit was in compliance.
3. The permittee shall collect and record the following information each month for the combined usage from coating lines K001, K002, K003, K004, and K005:
  - a. the name and identification number of each coating, as applied;
  - b. the VOC content of each coating, as applied, in pounds per gallon;
  - c. the number of gallons of each coating employed;
  - d. the name and identification of each cleanup material employed;
  - e. the number of gallons of each cleanup material employed;
  - f. the VOC content of each cleanup material, in pounds per gallon;
  - g. the total uncontrolled VOC emissions from all coatings and cleanup materials employed, in pounds or tons;
  - h. the calculated, controlled VOC emission rate for all coatings and cleanup materials, in pounds or tons. The controlled VOC emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance;
  - i. the total days of operation of the coating line each month; and
  - j. the average daily VOC emission rate in pounds of VOC per day. This shall be calculated by dividing (h) by (i) for each month.
4. The permittee shall collect and record for each month for emissions units K001-K005, the rolling 12-month summation of monthly VOC emissions.
5. The permittee shall collect and record the following information each month:

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- a. the name and identification number of each coating, as applied;
- b. the individual Hazardous Air Pollutant (HAP) content for each HAP of each coating, as applied, as a weight fraction (lbs of HAPs/lb of coating);
- c. the total combined HAP content for each coating, as applied, as a weight fraction (lbs of HAPs/lb of coating), i.e., the summation all the individual HAP contents from (b);
- d. the number of gallons of each coating employed;
- e. the density of each coating employed;
- f. the name and identification of each cleanup material employed;
- g. the individual HAP content for each HAP of each cleanup material, as applied, as a weight fraction (lbs of HAPS/lb of cleanup material);
- h. the total combined HAPs content of each cleanup material, as applied, as a weight fraction (lbs of HAPS/lb of cleanup material), i.e., the summation all the individual HAP contents from (g);
- i. the number of gallons of each cleanup material employed;
- j. the density of each cleanup material, as employed;
- k. the name and identification number of each ink, as applied;
- l. the individual HAP content for each HAP of each ink, as applied, as a weight fraction (lbs of HAPS/lb of ink);
- m. the total combined HAP content for each ink, as applied, as a weight fraction (lbs of HAPS/lb of ink), i.e., the summation all the individual HAP contents from (l);
- n. the number of pounds of each ink employed;
- o. the total uncontrolled individual HAP emissions for each HAP from all coatings, inks, and cleanup materials employed, in tons, i.e., for each HAP, the summation of [(b) times (d) times (e)] for all coatings plus the summation of [(g) times (i)

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- times (j)] for all cleanup material plus the summation of [(l) times (n)] for all inks, divided by 2000 pounds/ton;
- p. the total uncontrolled combined HAPs emissions from all coatings and cleanup materials employed, in tons, i.e., the summation of [(c) times (d) times (e)] for all coating plus the summation of [(h) times (i) times (j)] for all cleanup material plus the summation of [(m) times (n)] for all inks, divided by 2000 pounds/ton;
  - q. the calculated, controlled individual HAP emission rate for all coatings, inks, and cleanup materials, in tons, i.e., the uncontrolled individual HAP emission rate, from (o) above, multiplied by [ 1 minus the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance];
  - r. the calculated, controlled combined HAPs emission rate for all coatings, inks, and cleanup materials, in tons, i.e., the uncontrolled combined HAPs emission rate, from (p) above, multiplied by [ 1 minus the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance] ; and
  - s. the rolling, 12-month controlled individual HAP emissions (for each HAP) and the rolling, 12-month controlled combined HAPs emissions from all coatings, inks, and cleanup materials employed, in tons.

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

#### IV. Reporting Requirements

1. The permittee shall submit quarterly summaries of the following records:
  - a. A log of downtime for the capture (collection ) system, control device, monitoring equipment, while operating the associated emissions unit.
  - b. All 3-hour blocks of time (when the emissions units were in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average

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temperature of the exhaust gases during the most recent performance test that demonstrated the emissions unit was in compliance.

- c. All 3-hour blocks of time (when all the emissions units were in operation at maximum loading rate) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference of the bed during the most recent performance test that demonstrated the emissions unit was in compliance.
  - d. An identification of each month where the average daily VOC emission rate exceeded 810 pounds of VOC per day for emissions units K001, K002, K003, K004, and K005.
2. The permittee shall notify the Director (the Ohio EPA Northeast District Office) in writing of any monthly record showing the rolling 12-month summation of the monthly emissions from emissions units K001, K002, K003, K004, and K005 exceeded 149 tons per year. The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA Northeast District Office) within 45 days after the exceedance occurs.
  3. The permittee shall notify the Director of any monthly record showing any deviation from the following:
    - a. the total individual HAP emissions limitation for each HAP from all coatings and cleanup materials employed, in pounds or tons per rolling 12 month period; and
    - b. the total combined HAP emissions limitation from all coatings and cleanup materials employed, in pounds or tons per rolling 12 month period.

These reports shall include a description of the deviation, as well as the corrective actions that were taken to achieve compliance. The permittee shall submit annual reports which identify all exceedances of the above limitations, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year.
  4. The permittee shall submit annual reports that specify the VOC, individual HAP, and total combined HAPs emissions from emissions units K001-5 for the previous calendar year. These reports shall be submitted by January 31 of each year.

## **V. Testing Requirements**

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 2 years after permit issuance and within 6 months prior to permit renewal.

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- b. The emission testing shall be conducted to demonstrate compliance with the VOC capture efficiency and control efficiency requirements specified in Section A.1.2.b.
- c. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Northeast District Office.
- d. The capture efficiency is based upon the results of a performance test conducted on the capture system completed in March 1999, showing a capture efficiency of 97.5%. The Ohio EPA may require the test be redone if changes to the capture system occur.

The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.)

- e. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10 or an approved alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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2. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s).
3. Emission Limitation:  
810 pounds of VOC per day based on an average for each calendar month.  
  
Applicable Compliance Method:  
Compliance shall be based upon the recordkeeping specified in Section A.III.3.
4. Emission Limitation:  
149 tons per year VOC based on a rolling 12-month summation of monthly emissions  
  
Applicable Compliance Method:  
Compliance shall be based upon the monthly recordkeeping requirements specified in Section A.III.4. of this permit.
5. Emission Limitation:  
9.9 tons/year of any individual HAP; and 24.9 tons/year of total aggregate HAPS.  
  
Applicable Compliance Method  
Compliance shall be based upon the summation of the monthly records from the record keeping specified in Section A. III.5
6. The VOC content of each coating and cleanup material used shall be based upon the use of USEPA Method 24 as required in OAC 3745-21-10(B)(5) .

**VI. Miscellaneous Requirements**

None

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**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.

**Operations, Property, and/or Equipment - (K005) - coating line no. 5**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC 3745-31-05 PTI No. 02-11171	see B.I.2.a

**2. Additional Terms and Conditions**

- 2.a The maximum emissions from emissions units K001, K002, K003, K004, and K005 in any one day shall not exceed 1200 pounds of VOC per day. This limitation was established in accordance with Ohio EPA's "Air Toxics Policy" and is based on the formulation data, maximum production rates, and design parameters of the emissions units exhaust system, as specified in the PTI application.

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

1. Compliance with the emission limitation(s) in Section B.I.2. of these terms and

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conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation:  
1200 pounds of VOC per day

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Applicable Compliance Method:

Compliance is based upon a one time calculation using maximum capabilities of the coating equipment and permit allowable overall control efficiency.

**VI. Miscellaneous Requirements**

None