

Synthetic Minor Determination and/or  Netting Determination

Permit To Install **02-21600**

**A. Source Description**

Forest City Technologies Inc. operates under SCC code 4-02-025-01 at 401 Magyar Street in Wellington, Ohio. Forest City Technologies Inc. has applied for an air permit-to-install for fourteen metal parts coating lines. The coating lines, along with all of the other coating lines at the facility, are subject to 40 CFR, Part 63, Subpart M, the MACT standard for miscellaneous metal parts and products based on potential facility-wide emissions. The coating lines are also subject to OAC rule 3745-21-09(U)(1)(i) which limits the volatile organic compound (VOC) content of coatings employed to 3.0 lbs VOC/gallon, excluding water and exempt solvents. The facility is located in Lorain county.

**B. Facility Emissions and Attainment Status**

The fourteen metal parts coating lines and other coating lines at the facility emit hazardous air pollutants (HAPs). The coating lines also emit volatile organic compounds (VOCs). Maximum potential single HAP and combined HAP emissions for the facility exceed 10 and 25 tons per year, respectively. Upon the installation of the fourteen metal parts coating lines with potential VOC emissions of 49.8 tons per year, facility-wide potential VOC emissions will exceed 100 tons per year.\* Lorain county is non-attainment for ozone and particulate matter less than 2.5 microns in diameter.

\*Forest City Technologies Inc. recently has applied for permits to install for three separate projects (PTI 02-21446, PTI 02-21579, and PTI 02-21600), including this project (PTI 02-21600). The installation dates for the three projects are different. Two of the projects represent equipment relocation from other Forest City Technologies Inc. facilities and one of the projects represents installation of new equipment from an outside source. Combined VOC emissions for the three projects are 94 tons per year.

**C. Source Emissions**

Forest City Technologies Inc. has proposed to limit HAP emissions facility-wide to 9.9 tons per year of each single HAP and 24.9 tons per year of combined HAPs. Forest City Technologies Inc. has proposed to limit VOC emissions facility-wide to 99.5 tons per year. This air permit to install will contain terms and conditions to establish these limitations.

**D. Conclusion**

This air permit-to-install will limit HAP emissions by limiting facility-wide HAP emissions over a rolling, 12-month period to 9.9 tons per year of each single HAP and 24.9 tons per year of combined HAPs. Forest City Technologies Inc. will be required to record the monthly facility-wide emissions of each single HAP and all combined HAPs from all of the coating lines and all other sources of HAP emissions, including but not limited to de minimis, exempt, and combustion sources. Exceedance reports will be submitted if necessary. In this way, the facility will address the issue of 40 CFR Part 63, Subpart M, by not being major for HAPs.

This air permit-to-install will limit VOC emissions by limiting facility-wide VOC emissions over a rolling, 12-month period to 99.5 tons per year. Forest City Technologies Inc. will be required to record the monthly facility-wide emissions of VOCs from all of the coating lines and all other sources of VOC emissions, including but not limited to de minimis, exempt, and combustion sources. Exceedance reports will be submitted if necessary.



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center  
50 West Town Street, Suite 700  
Columbus, OH 43215

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

Mailing Address:

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

**CERTIFIED MAIL**

**RE: DRAFT PERMIT TO INSTALL**

**LORAIN COUNTY**

**Application No: 02-21600**

**Fac ID: 0247170841**

**DATE: 7/26/2007**

Forest City Technologies Inc Plant 2/4  
Marshall Searles  
PO Box 86 299 Clay St  
Wellington, OH 44090

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

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43216-1049.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$3000** will be due. Please do not submit any payment now.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

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

CC: USEPA

NEDO

**LORAIN COUNTY**

PUBLIC NOTICE  
ISSUANCE OF DRAFT PERMIT TO INSTALL **02-21600** FOR AN AIR CONTAMINANT SOURCE  
FOR **Forest City Technologies Inc Plant 2/4**

On 7/26/2007 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Forest City Technologies Inc Plant 2/4**, located at **401 Maygar St, Wellington, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 02-21600:

**15 coaters with ovens.**

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

Dennis Bush, Ohio EPA, Northeast District Office, 2110 East Aurora Road, Twinsburg, OH 44087  
[(330)425-9171]



**Permit To Install  
Terms and Conditions**

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

**DRAFT PERMIT TO INSTALL 02-21600**

Application Number: 02-21600

Facility ID: 0247170841

Permit Fee: **To be entered upon final issuance**

Name of Facility: Forest City Technologies Inc Plant 2/4

Person to Contact: Marshall Searles

Address: PO Box 86 299 Clay St  
Wellington, OH 44090

Location of proposed air contaminant source(s) [emissions unit(s)]:

**401 Maygar St  
Wellington, Ohio**

Description of proposed emissions unit(s):

**15 coaters with ovens.**

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

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Chris Korleski  
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.

**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

**Forest City Technologies Inc Plant 2/4**

**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

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.

**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.

**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**

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

### **4. 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).

**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**

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	49.8
Single HAP	9.9
Combined HAPs	24.9

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

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

- 1. Volatile organic compound (VOC) emissions from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 99.5 tons per year, based upon a rolling, 12-month summation.
- 2. During the first twelve (12) calendar months of operation following the effective date of this permit, the cumulative number of tons of emissions of VOCs shall not exceed the tons of emissions of VOCs as specified for each month in the following table:

Month:	Cumulative Number of Tons of VOC Emissions:
1	8.3
2	16.6
3	24.9
4	33.2
5	41.5
6	49.7
7	58.0
8	66.3
9	82.9
11	91.2
12	99.5

- 3. The permittee shall collect and record the following information for each month:
  - a. For all coating lines at the facility, including but not limited to de minimis and exempt sources:
    - i. The name and identification number of each coating, as applied;
    - ii. The volume, in gallons, of each coating, as applied, in gallons;
    - iii. The VOC content of each coating, as applied, in pounds per gallon; and
    - iv. The total VOC emissions from all coatings employed [summation of (b x c) for all coatings].
  - b. For all combustion sources of VOCs:
    - i. The total volume of natural gas burned; and

- ii. The total VOC emissions from natural gas calculated using an emission factor of 5.5 lb/mmcf from AP-42, Section 1.4, 7/98 or any later edition.
    - c. The total facility-wide VOC emissions (the summation of II.A.3.a.iv + II.A.3.b.ii).
  - 4. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of VOCs from all emissions units at the facility exceeded 99.5 tons per year, and the actual rolling, 12-month emissions of VOCs for each such month.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K022 - Bolt coater no. 3 with natural gas drying oven no. 13	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 16.4 pounds per day and 3.0 tons per year from coating materials. See A.I.2.c below.
	OAC rule 3745-21-09(U)(1)(i)	This rule also include the requirements of OAC rule 3745-21-09(U)(1)(i) and OAC rule 3745-31-05(C).
	OAC rule 3745-31-05(C)	3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.
		See A.I.2.a and A.I.2 b below.

**2. Additional Terms and Conditions**

- 2.a The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.
- 2.b The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

- 2.c** Based upon the permittee's application, there are no cleanup materials associated with this emissions unit.

## **II. Operational Restrictions**

1. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not cause volatile organic compound emissions to exceed 99.5 tons, based upon a rolling, 12-month summation, as follows:
  - a. The maximum annual volatile organic compound emissions from emissions unit K010 shall not exceed 16.3 tons per year (the corresponding material usage shall not exceed 326 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures), in accordance with PTI number 02-15400 issued on October 16, 2001.
  - b. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis and exempt sources, shall not exceed 83.2 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures.
  - c. The permittee shall comply with this limitation upon issuance of this permit through the use of past operating records.

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

1. The permittee shall collect and record the following information for each day for this coating line (K022):
  - a. The name and identification number of each coating, as applied;
  - b. The volume, in gallons, of each coating, as applied, in gallons;
  - c. The VOC content of each coating, as applied, in pounds per gallon;
  - d. The total VOC emissions from all coatings employed [summation of (b x c) for all coatings]; and
  - e. The VOC content of each coating, excluding water and exempt solvents, in pounds per gallon.

2. The permittee shall collect and record the following information for purpose of determining annual VOC emissions for this coating line (K022):
  - a. The total VOC emissions from all coatings employed (summation of A.III.1.d above for each month), in pounds or tons.
  
3. The permittee shall collect and record the following information each month:
  - a. For all coating lines at the facility as denoted in terms A.I.2.a and A.I.2.b above, including all deminis and exempt coating lines:
    - i. The name and identification number of each coating, as applied;
    - ii. The volume, in gallons, of each coating, as applied;
    - iii. The individual HAP content for each HAP in each coating, as applied, in pounds per gallon;
    - iv. The combined HAP contents for each HAP in each coating, as applied, in pounds per gallon;
    - v. The total HAP emissions for all coating lines of each single HAP [summation of (ii x iii) for all coatings; for coating lines with control equipment (ii x iii) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions]; and
    - vi. The total combined HAP emissions for all coating lines [summation of (ii x iv) for all HAPs emitted from all coating lines; for coating lines with control equipment (ii x iv) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions].
  - b. For all combustion sources of HAPs at the facility as denoted in terms A.I.2.a and A.I.2.b above:
    - i. The total volume of natural gas burned; and
    - ii. The total HAP emissions calculated using emission factors from AP-42, Section 1.4, 7/98 or any later edition.
  - c. The total combined HAP emissions for all emissions units of each single HAP and total combined HAPs [summation of III.3.a.v and III.3.a.vi for all HAPs emitted by the coating lines (single HAP and combined HAPs, respectively) and III.3.b.ii for all HAP emissions from combustion sources] per rolling 12-month period.

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**Forest City Technologies Inc Plant 2/4**

**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K022

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

1. The permittee shall notify the Ohio EPA Northeast District Office in writing of any daily record showing the use of non-complying coatings (VOC content greater than 3.0 pounds VOC per gallon, excluding water and exempt solvents). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
2. The permittee shall submit deviation (excursion) reports which identify each day where the daily VOC emission rate exceeded 16.4 pounds per day for this emissions unit (K022). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
3. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of any single HAP from all emissions units at the facility exceeded 9.9 tons per year, and the actual rolling, 12-month emissions of each such single HAP for each such month.
4. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of combined HAPs from all emissions units at the facility exceeded 24.9 tons per year, and the actual rolling, 12-month emissions of combined HAPs for each such month.
5. The permittee shall submit annual reports which specify the actual annual VOC emissions for this emissions unit (K022). The reports shall be submitted by January 31 of each year and cover the previous calendar year.
6. The permittee shall submit annual reports which summarize the facility-wide emissions of each single HAP and combined HAPs from all emissions units at the facility. The reports shall include emission calculations, be submitted by January 31 of each year, and cover the previous calendar year.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
  
VOC emissions shall not exceed 16.4 pounds per day.  
  
Applicable Compliance Method:  
  
Compliance shall be based upon the record keeping requirements in Section A.III.1.
  - b. Emission Limitation:

3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.1 and the testing requirements in Section A.V.2.

c. Emission Limitation:

VOC emissions shall not exceed 3.0 tons per year.

Applicable Compliance Method:

Compliance shall be determined by summing the daily VOC emission rate in Section A.III.1 for the entire year.

d. Emission Limitation:

The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, L001, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of HAP emissions for each single HAP.

e. Emission Limitation:

The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, L001, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of combined HAP emissions.

2. OAC rule 3745-21-10(B). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and related coatings, respectively. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.”

## **VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K022 - Bolt coater no. 3 with natural gas drying oven no. 13	None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (K022) was evaluated based on the actual materials employed and design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3..0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: butyl cellosolve  
 TLV (ug/m3): 121,000  
 Maximum Hourly Emission Rate (g/s): 1.11  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7  
 MAGLC (ug/m3): 2880

Pollutant: N-butanol  
 TLV (ug/m3): 112,000

Maximum Hourly Emission Rate (g/s): 1.05

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7

MAGLC (ug/m3): 2660

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install would not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K023 - Bolt coater no. 5 with natural gas drying oven no. 15B	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 21.12 pounds per day and 3.9 tons per year from coating materials. See A.I.2.c below.
	OAC rule 3745-21-09(U)(1)(i)	This rule also include the requirements of OAC rule 3745-21-09(U)(1)(i) and OAC rule 3745-31-05(C).
	OAC rule 3745-31-05(C)	3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.
		See A.I.2.a and A.I.2 b below.

**2. Additional Terms and Conditions**

- 2.a The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.
- 2.b The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

- 2.c Based upon the permittee's application, there are no cleanup materials associated with this emissions unit.

## II. Operational Restrictions

1. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not cause volatile organic compound emissions to exceed 99.5 tons, based upon a rolling, 12-month summation, as follows:
  - a. The maximum annual volatile organic compound emissions from emissions unit K010 shall not exceed 16.3 tons per year (the corresponding material usage shall not exceed 326 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures), in accordance with PTI number 02-15400 issued on October 16, 2001.
  - b. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis and exempt sources, shall not exceed 83.2 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures.
  - c. The permittee shall comply with this limitation upon issuance of this permit through the use of past operating records.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each day for this coating line (K023):
  - a. The name and identification number of each coating, as applied;
  - b. The volume, in gallons, of each coating, as applied, in gallons;
  - c. The VOC content of each coating, as applied, in pounds per gallon;
  - d. The total VOC emissions from all coatings employed [summation of (b x c) for all coatings]; and
  - e. The VOC content of each coating, excluding water and exempt solvents, in pounds per gallon.

2. The permittee shall collect and record the following information for purpose of determining annual VOC emissions for this coating line (K023):
  - a. The total VOC emissions from all coatings employed (summation of A.III.1.d above for each month), in pounds or tons.
3. The permittee shall collect and record the following information each month:
  - a. For all coating lines at the facility as denoted in terms A.I.2.a and A.I.2.b above, including all deminis and exempt coating lines:
    - i. The name and identification number of each coating, as applied;
    - ii. The volume, in gallons, of each coating, as applied;
    - iii. The individual HAP content for each HAP in each coating, as applied, in pounds per gallon;
    - iv. The combined HAP contents for each HAP in each coating, as applied, in pounds per gallon;
    - v. The total HAP emissions for all coating lines of each single HAP [summation of (ii x iii) for all coatings; for coating lines with control equipment (ii x iii) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions]; and
    - vi. The total combined HAP emissions for all coating lines [summation of (ii x iv) for all HAPs emitted from all coating lines; for coating lines with control equipment (ii x iv) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions].
  - b. For all combustion sources of HAPs at the facility as denoted in terms A.I.2.a and A.I.2.b above:
    - i. The total volume of natural gas burned; and
    - ii. The total HAP emissions calculated using emission factors from AP-42, Section 1.4, 7/98 or any later edition.
  - c. The total combined HAP emissions for all emissions units of each single HAP and total combined HAPs [summation of III.3.a.v and III.3.a.vi for all HAPs emitted by the coating lines (single HAP and combined HAPs, respectively) and III.3.b.ii for all HAP emissions from combustion sources] per rolling 12-month period.

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**Forest City Technologies Inc Plant 2/4**

**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K023

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

1. The permittee shall notify the Ohio EPA Northeast District Office in writing of any daily record showing the use of non-complying coatings (VOC content greater than 3.0 pounds VOC per gallon, excluding water and exempt solvents). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
2. The permittee shall submit deviation (excursion) reports which identify each day where the daily VOC emission rate exceeded 21.12 pounds per day for this emissions unit (K023). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
3. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of any single HAP from all emissions units at the facility exceeded 9.9 tons per year, and the actual rolling, 12-month emissions of each such single HAP for each such month.
4. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of combined HAPs from all emissions units at the facility exceeded 24.9 tons per year, and the actual rolling, 12-month emissions of combined HAPs for each such month.
5. The permittee shall submit annual reports which specify the actual annual VOC emissions for this emissions unit (K023). The reports shall be submitted by January 31 of each year and cover the previous calendar year.
6. The permittee shall submit annual reports which summarize the facility-wide emissions of each single HAP and combined HAPs from all emissions units at the facility. The reports shall include emission calculations, be submitted by January 31 of each year, and cover the previous calendar year.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
  
VOC emissions shall not exceed 21.12 pounds per day.  
  
Applicable Compliance Method:  
  
Compliance shall be based upon the record keeping requirements in Section A.III.1.
  - b. Emission Limitation:

3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.1 and the testing requirements in Section A.V.2.

c. Emission Limitation:

VOC emissions shall not exceed 3.9 tons per year.

Applicable Compliance Method:

Compliance shall be determined by summing the daily VOC emission rate in Section A.III.1 for the entire year.

d. Emission Limitation:

The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, L001, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of HAP emissions for each single HAP.

e. Emission Limitation:

The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, L001, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of combined HAP emissions.

2. OAC rule 3745-21-10(B). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and related coatings, respectively. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.”

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K023 - Bolt coater no. 5 with natural gas drying oven no. 15B	None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (K023) was evaluated based on the actual materials employed and design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: butyl cellosolve  
 TLV (ug/m3): 121,000  
 Maximum Hourly Emission Rate (g/s): 1.11  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7  
 MAGLC (ug/m3): 2880

Pollutant: N-butanol  
 TLV (ug/m3): 112,000  
 Maximum Hourly Emission Rate (g/s): 1.05

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**Forest City Technologies Inc Plant 2/4**

**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K023

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7

MAGLC (ug/m3): 2660

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install would not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

#### IV. Reporting Requirements

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K024 - Bolt coater no. 6 with natural gas drying oven no. 4	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 15.84 pounds per day and 2.9 tons per year from coating materials. See A.I.2.c below.
	OAC rule 3745-21-09(U)(1)(i)	This rule also include the requirements of OAC rule 3745-21-09(U)(1)(i) and OAC rule 3745-31-05(C).
	OAC rule 3745-31-05(C)	3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.
		See A.I.2.a and A.I.2 b below.

**2. Additional Terms and Conditions**

- 2.a The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.
- 2.b The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

- 2.c Based upon the permittee's application, there are no cleanup materials associated with this emissions unit.

## II. Operational Restrictions

1. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not cause volatile organic compound emissions to exceed 99.5 tons, based upon a rolling, 12-month summation, as follows:
  - a. The maximum annual volatile organic compound emissions from emissions unit K010 shall not exceed 16.3 tons per year (the corresponding material usage shall not exceed 326 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures), in accordance with PTI number 02-15400 issued on October 16, 2001.
  - b. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis and exempt sources, shall not exceed 83.2 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures.
  - c. The permittee shall comply with this limitation upon issuance of this permit through the use of past operating records.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each day for this coating line (K024):
  - a. The name and identification number of each coating, as applied;
  - b. The volume, in gallons, of each coating, as applied, in gallons;
  - c. The VOC content of each coating, as applied, in pounds per gallon;
  - d. The total VOC emissions from all coatings employed [summation of (b x c) for all coatings]; and
  - e. The VOC content of each coating, excluding water and exempt solvents, in pounds per gallon.

2. The permittee shall collect and record the following information for purpose of determining annual VOC emissions for this coating line (K024):
  - a. The total VOC emissions from all coatings employed (summation of A.III.1.d above for each month), in pounds or tons.
3. The permittee shall collect and record the following information each month:
  - a. For all coating lines at the facility as denoted in terms A.I.2.a and A.I.2.b above, including all deminis and exempt coating lines:
    - i. The name and identification number of each coating, as applied;
    - ii. The volume, in gallons, of each coating, as applied;
    - iii. The individual HAP content for each HAP in each coating, as applied, in pounds per gallon;
    - iv. The combined HAP contents for each HAP in each coating, as applied, in pounds per gallon;
    - v. The total HAP emissions for all coating lines of each single HAP [summation of (ii x iii) for all coatings; for coating lines with control equipment (ii x iii) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions]; and
    - vi. The total combined HAP emissions for all coating lines [summation of (ii x iv) for all HAPs emitted from all coating lines; for coating lines with control equipment (ii x iv) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions].
  - b. For all combustion sources of HAPs at the facility as denoted in terms A.I.2.a and A.I.2.b above:
    - i. The total volume of natural gas burned; and
    - ii. The total HAP emissions calculated using emission factors from AP-42, Section 1.4, 7/98 or any later edition.
  - c. The total combined HAP emissions for all emissions units of each single HAP and total combined HAPs [summation of III.3.a.v and III.3.a.vi for all HAPs emitted by the coating lines (single HAP and combined HAPs, respectively) and

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**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K024

III.3.b.ii for all HAP emissions from combustion sources] per rolling 12-month period.

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

1. The permittee shall notify the Ohio EPA Northeast District Office in writing of any daily record showing the use of non-complying coatings (VOC content greater than 3.0 pounds VOC per gallon, excluding water and exempt solvents). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
2. The permittee shall submit deviation (excursion) reports which identify each day where the daily VOC emission rate exceeded 15.84 pounds per day for this emissions unit (K024). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
3. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of any single HAP from all emissions units at the facility exceeded 9.9 tons per year, and the actual rolling, 12-month emissions of each such single HAP for each such month.
4. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of combined HAPs from all emissions units at the facility exceeded 24.9 tons per year, and the actual rolling, 12-month emissions of combined HAPs for each such month.
5. The permittee shall submit annual reports which specify the actual annual VOC emissions for this emissions unit (K024). The reports shall be submitted by January 31 of each year and cover the previous calendar year.
6. The permittee shall submit annual reports which summarize the facility-wide emissions of each single HAP and combined HAPs from all emissions units at the facility. The reports shall include emission calculations, be submitted by January 31 of each year, and cover the previous calendar year.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
  
VOC emissions shall not exceed 15.84 pounds per day.  
  
Applicable Compliance Method:  
  
Compliance shall be based upon the record keeping requirements in Section A.III.1.
  - b. Emission Limitation:

3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.1 and the testing requirements in Section A.V.2.

c. Emission Limitation:

VOC emissions shall not exceed 2.9 tons per year.

Applicable Compliance Method:

Compliance shall be determined by summing the daily VOC emission rate in Section A.III.1 for the entire year.

d. Emission Limitation:

The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of HAP emissions for each single HAP.

e. Emission Limitation:

The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of combined HAP emissions.

2. OAC rule 3745-21-10(B). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and

related coatings, respectively. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.”

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K024 - Bolt coater no. 6 with natural gas drying oven no. 4	None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (K024) was evaluated based on the actual materials employed and design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: butyl cellosolve  
 TLV (ug/m3): 121,000  
 Maximum Hourly Emission Rate (g/s): 1.11  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7  
 MAGLC (ug/m3): 2880

Pollutant: N-butanol  
 TLV (ug/m3): 112,000  
 Maximum Hourly Emission Rate (g/s): 1.05

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

**Facility ID: 0247170841**

Emissions Unit ID: K024

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7

MAGLC (ug/m3): 2660

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install would not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K025 - Index coater no. 2 with natural gas drying oven no. 5	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 31.7 pounds per day and 5.8 tons per year from coating materials. See A.I.2.c below.
	OAC rule 3745-21-09(U)(1)(i)	This rule also include the requirements of OAC rule 3745-21-09(U)(1)(i) and OAC rule 3745-31-05(C).
	OAC rule 3745-31-05(C)	3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.
		See A.I.2.a and A.I.2 b below.

**2. Additional Terms and Conditions**

- 2.a The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.
- 2.b The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

- 2.c Based upon the permittee's application, there are no cleanup materials associated with this emissions unit.

## II. Operational Restrictions

1. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not cause volatile organic compound emissions to exceed 99.5 tons, based upon a rolling, 12-month summation, as follows:
  - a. The maximum annual volatile organic compound emissions from emissions unit K010 shall not exceed 16.3 tons per year (the corresponding material usage shall not exceed 326 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures), in accordance with PTI number 02-15400 issued on October 16, 2001.
  - b. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis and exempt sources, shall not exceed 83.2 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures.
  - c. The permittee shall comply with this limitation upon issuance of this permit through the use of past operating records.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each day for this coating line (K025):
  - a. The name and identification number of each coating, as applied;
  - b. The volume, in gallons, of each coating, as applied, in gallons;
  - c. The VOC content of each coating, as applied, in pounds per gallon;
  - d. The total VOC emissions from all coatings employed [summation of (b x c) for all coatings]; and
  - e. The VOC content of each coating, excluding water and exempt solvents, in pounds per gallon.

2. The permittee shall collect and record the following information for purpose of determining annual VOC emissions for this coating line (K025):
  - a. The total VOC emissions from all coatings employed (summation of A.III.1.d above for each month), in pounds or tons.
3. The permittee shall collect and record the following information each month:
  - a. For all coating lines at the facility as denoted in terms A.I.2.a and A.I.2.b above, including all deminis and exempt coating lines:
    - i. The name and identification number of each coating, as applied;
    - ii. The volume, in gallons, of each coating, as applied;
    - iii. The individual HAP content for each HAP in each coating, as applied, in pounds per gallon;
    - iv. The combined HAP contents for each HAP in each coating, as applied, in pounds per gallon;
    - v. The total HAP emissions for all coating lines of each single HAP [summation of (ii x iii) for all coatings; for coating lines with control equipment (ii x iii) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions]; and
    - vi. The total combined HAP emissions for all coating lines [summation of (ii x iv) for all HAPs emitted from all coating lines; for coating lines with control equipment (ii x iv) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions].
  - b. For all combustion sources of HAPs at the facility as denoted in terms A.I.2.a and A.I.2.b above:
    - i. The total volume of natural gas burned; and
    - ii. The total HAP emissions calculated using emission factors from AP-42, Section 1.4, 7/98 or any later edition.
  - c. The total combined HAP emissions for all emissions units of each single HAP and total combined HAPs [summation of III.3.a.v and III.3.a.vi for all HAPs emitted by the coating lines (single HAP and combined HAPs, respectively) and III.3.b.ii for all HAP emissions from combustion sources] per rolling 12-month period.

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**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K025

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

1. The permittee shall notify the Ohio EPA Northeast District Office in writing of any daily record showing the use of non-complying coatings (VOC content greater than 3.0 pounds VOC per gallon, excluding water and exempt solvents). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
2. The permittee shall submit deviation (excursion) reports which identify each day where the daily VOC emission rate exceeded 31.7 pounds per day for this emissions unit (K025). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
3. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of any single HAP from all emissions units at the facility exceeded 9.9 tons per year, and the actual rolling, 12-month emissions of each such single HAP for each such month.
4. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of combined HAPs from all emissions units at the facility exceeded 24.9 tons per year, and the actual rolling, 12-month emissions of combined HAPs for each such month.
5. The permittee shall submit annual reports which specify the actual annual VOC emissions for this emissions unit (K025). The reports shall be submitted by January 31 of each year and cover the previous calendar year.
6. The permittee shall submit annual reports which summarize the facility-wide emissions of each single HAP and combined HAPs from all emissions units at the facility. The reports shall include emission calculations, be submitted by January 31 of each year, and cover the previous calendar year.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
  
VOC emissions shall not exceed 31.7 pounds per day.  
  
Applicable Compliance Method:  
  
Compliance shall be based upon the record keeping requirements in Section A.III.1.
  - b. Emission Limitation:

3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.1 and the testing requirements in Section A.V.2.

c. Emission Limitation:

VOC emissions shall not exceed 5.8 tons per year.

Applicable Compliance Method:

Compliance shall be determined by summing the daily VOC emission rate in Section A.III.1 for the entire year.

d. Emission Limitation:

The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of HAP emissions for each single HAP.

e. Emission Limitation:

The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of combined HAP emissions.

2. OAC rule 3745-21-10(B). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and

related coatings, respectively. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.”

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K025 - Index coater no. 2 with natural gas drying oven no. 5	None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (K025) was evaluated based on the actual materials employed and design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3..0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: butyl cellosolve  
 TLV (ug/m3): 121,000  
 Maximum Hourly Emission Rate (g/s): 1.11  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7  
 MAGLC (ug/m3): 2880

Pollutant: N-butanol  
 TLV (ug/m3): 112,000  
 Maximum Hourly Emission Rate (g/s): 1.05

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**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K025

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7

MAGLC (ug/m3): 2660

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install would not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

#### IV. Reporting Requirements

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None



- 2.c Based upon the permittee's application, there are no cleanup materials associated with this emissions unit.

## II. Operational Restrictions

1. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not cause volatile organic compound emissions to exceed 99.5 tons, based upon a rolling, 12-month summation, as follows:
  - a. The maximum annual volatile organic compound emissions from emissions unit K010 shall not exceed 16.3 tons per year (the corresponding material usage shall not exceed 326 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures), in accordance with PTI number 02-15400 issued on October 16, 2001.
  - b. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis and exempt sources, shall not exceed 83.2 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures.
  - c. The permittee shall comply with this limitation upon issuance of this permit through the use of past operating records.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each day for this coating line (K026):
  - a. The name and identification number of each coating, as applied;
  - b. The volume, in gallons, of each coating, as applied, in gallons;
  - c. The VOC content of each coating, as applied, in pounds per gallon;
  - d. The total VOC emissions from all coatings employed [summation of (b x c) for all coatings]; and
  - e. The VOC content of each coating, excluding water and exempt solvents, in pounds per gallon.

2. The permittee shall collect and record the following information for purpose of determining annual VOC emissions for this coating line (K026):
  - a. The total VOC emissions from all coatings employed (summation of A.III.1.d above for each month), in pounds or tons.
3. The permittee shall collect and record the following information each month:
  - a. For all coating lines at the facility as denoted in terms A.I.2.a and A.I.2.b above, including all deminis and exempt coating lines:
    - i. The name and identification number of each coating, as applied;
    - ii. The volume, in gallons, of each coating, as applied;
    - iii. The individual HAP content for each HAP in each coating, as applied, in pounds per gallon;
    - iv. The combined HAP contents for each HAP in each coating, as applied, in pounds per gallon;
    - v. The total HAP emissions for all coating lines of each single HAP [summation of (ii x iii) for all coatings; for coating lines with control equipment (ii x iii) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions]; and
    - vi. The total combined HAP emissions for all coating lines [summation of (ii x iv) for all HAPs emitted from all coating lines; for coating lines with control equipment (ii x iv) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions].
  - b. For all combustion sources of HAPs at the facility as denoted in terms A.I.2.a and A.I.2.b above:
    - i. The total volume of natural gas burned; and
    - ii. The total HAP emissions calculated using emission factors from AP-42, Section 1.4, 7/98 or any later edition.
  - c. The total combined HAP emissions for all emissions units of each single HAP and total combined HAPs [summation of III.3.a.v and III.3.a.vi for all HAPs emitted by the coating lines (single HAP and combined HAPs, respectively) and III.3.b.ii for all HAP emissions from combustion sources] per rolling 12-month period.

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**Forest City Technologies Inc Plant 2/4**

**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K026

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

1. The permittee shall notify the Ohio EPA Northeast District Office in writing of any daily record showing the use of non-complying coatings (VOC content greater than 3.0 pounds VOC per gallon, excluding water and exempt solvents). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
2. The permittee shall submit deviation (excursion) reports which identify each day where the daily VOC emission rate exceeded 24.64 pounds per day for this emissions unit (K026). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
3. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of any single HAP from all emissions units at the facility exceeded 9.9 tons per year, and the actual rolling, 12-month emissions of each such single HAP for each such month.
4. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of combined HAPs from all emissions units at the facility exceeded 24.9 tons per year, and the actual rolling, 12-month emissions of combined HAPs for each such month.
5. The permittee shall submit annual reports which specify the actual annual VOC emissions for this emissions unit (K026). The reports shall be submitted by January 31 of each year and cover the previous calendar year.
6. The permittee shall submit annual reports which summarize the facility-wide emissions of each single HAP and combined HAPs from all emissions units at the facility. The reports shall include emission calculations, be submitted by January 31 of each year, and cover the previous calendar year.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
  
VOC emissions shall not exceed 24.64 pounds per day.  
  
Applicable Compliance Method:  
  
Compliance shall be based upon the record keeping requirements in Section A.III.1.
  - b. Emission Limitation:

3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.1 and the testing requirements in Section A.V.2.

c. Emission Limitation:

VOC emissions shall not exceed 4.5 tons per year.

Applicable Compliance Method:

Compliance shall be determined by summing the daily VOC emission rate in Section A.III.1 for the entire year.

d. Emission Limitation:

The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of HAP emissions for each single HAP.

e. Emission Limitation:

The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of combined HAP emissions.

2. OAC rule 3745-21-10(B). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and

related coatings, respectively. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.”

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K026 - Index coater no. 7 with natural gas drying oven no. 21	None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (K026) was evaluated based on the actual materials employed and design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: butyl cellosolve  
 TLV (ug/m3): 121,000  
 Maximum Hourly Emission Rate (g/s): 1.11  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7  
 MAGLC (ug/m3): 2880

Pollutant: N-butanol  
 TLV (ug/m3): 112,000  
 Maximum Hourly Emission Rate (g/s): 1.05

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**Forest City Technologies Inc Plant 2/4**

**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K026

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7

MAGLC (ug/m3): 2660

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install would not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K027 - Vision coater no. 1 with natural gas drying oven no. 2	OAC rule 3745-31-05(A)(3)  OAC rule 3745-21-09(U)(1)(i)  OAC rule 3745-31-05(C)	Volatile organic compound (VOC) emissions shall not exceed 13.2 pounds per day and 2.4 tons per year from coating materials. See A.I.2.c below.  This rule also include the requirements of OAC rule 3745-21-09(U)(1)(i) and OAC rule 3745-31-05(C).  3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.  See A.I.2.a and A.I.2 b below.

**2. Additional Terms and Conditions**

- 2.a The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.
- 2.b The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

- 2.c Based upon the permittee's application, there are no cleanup materials associated with this emissions unit.

## II. Operational Restrictions

1. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not cause volatile organic compound emissions to exceed 99.5 tons, based upon a rolling, 12-month summation, as follows:
  - a. The maximum annual volatile organic compound emissions from emissions unit K010 shall not exceed 16.3 tons per year (the corresponding material usage shall not exceed 326 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures), in accordance with PTI number 02-15400 issued on October 16, 2001.
  - b. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis and exempt sources, shall not exceed 83.2 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures.
  - c. The permittee shall comply with this limitation upon issuance of this permit through the use of past operating records.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each day for this coating line (K027):
  - a. The name and identification number of each coating, as applied;
  - b. The volume, in gallons, of each coating, as applied, in gallons;
  - c. The VOC content of each coating, as applied, in pounds per gallon;
  - d. The total VOC emissions from all coatings employed [summation of (b x c) for all coatings]; and
  - e. The VOC content of each coating, excluding water and exempt solvents, in pounds per gallon.

2. The permittee shall collect and record the following information for purpose of determining annual VOC emissions for this coating line (K027):
  - a. The total VOC emissions from all coatings employed (summation of A.III.1.d above for each month), in pounds or tons.
3. The permittee shall collect and record the following information each month:
  - a. For all coating lines at the facility as denoted in terms A.I.2.a and A.I.2.b above, including all deminis and exempt coating lines:
    - i. The name and identification number of each coating, as applied;
    - ii. The volume, in gallons, of each coating, as applied;
    - iii. The individual HAP content for each HAP in each coating, as applied, in pounds per gallon;
    - iv. The combined HAP contents for each HAP in each coating, as applied, in pounds per gallon;
    - v. The total HAP emissions for all coating lines of each single HAP [summation of (ii x iii) for all coatings; for coating lines with control equipment (ii x iii) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions]; and
    - vi. The total combined HAP emissions for all coating lines [summation of (ii x iv) for all HAPs emitted from all coating lines; for coating lines with control equipment (ii x iv) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions].
  - b. For all combustion sources of HAPs at the facility as denoted in terms A.I.2.a and A.I.2.b above:
    - i. The total volume of natural gas burned; and
    - ii. The total HAP emissions calculated using emission factors from AP-42, Section 1.4, 7/98 or any later edition.
  - c. The total combined HAP emissions for all emissions units of each single HAP and total combined HAPs [summation of III.3.a.v and III.3.a.vi for all HAPs emitted by the coating lines (single HAP and combined HAPs, respectively) and III.3.b.ii for all HAP emissions from combustion sources] per rolling 12-month period.

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**Forest City Technologies Inc Plant 2/4**

**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K027

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

1. The permittee shall notify the Ohio EPA Northeast District Office in writing of any daily record showing the use of non-complying coatings (VOC content greater than 3.0 pounds VOC per gallon, excluding water and exempt solvents). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
2. The permittee shall submit deviation (excursion) reports which identify each day where the daily VOC emission rate exceeded 13.2 pounds per day for this emissions unit (K027). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
3. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of any single HAP from all emissions units at the facility exceeded 9.9 tons per year, and the actual rolling, 12-month emissions of each such single HAP for each such month.
4. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of combined HAPs from all emissions units at the facility exceeded 24.9 tons per year, and the actual rolling, 12-month emissions of combined HAPs for each such month.
5. The permittee shall submit annual reports which specify the actual annual VOC emissions for this emissions unit (K027). The reports shall be submitted by January 31 of each year and cover the previous calendar year.
6. The permittee shall submit annual reports which summarize the facility-wide emissions of each single HAP and combined HAPs from all emissions units at the facility. The reports shall include emission calculations, be submitted by January 31 of each year, and cover the previous calendar year.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
  
VOC emissions shall not exceed 13.2 pounds per day.  
  
Applicable Compliance Method:  
  
Compliance shall be based upon the record keeping requirements in Section A.III.1.
  - b. Emission Limitation:

3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.1 and the testing requirements in Section A.V.2.

c. Emission Limitation:

VOC emissions shall not exceed 2.4 tons per year.

Applicable Compliance Method:

Compliance shall be determined by summing the daily VOC emission rate in Section A.III.1 for the entire year.

d. Emission Limitation:

The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of HAP emissions for each single HAP.

e. Emission Limitation:

The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of combined HAP emissions.

2. OAC rule 3745-21-10(B). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and

related coatings, respectively. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.”

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K027 - Vision coater no. 1 with natural gas drying oven no. 2	None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (K027) was evaluated based on the actual materials employed and design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: butyl cellosolve  
 TLV (ug/m3): 121,000  
 Maximum Hourly Emission Rate (g/s): 1.11  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7  
 MAGLC (ug/m3): 2880

Pollutant: N-butanol  
 TLV (ug/m3): 112,000  
 Maximum Hourly Emission Rate (g/s): 1.05

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**Forest City Technologies Inc Plant 2/4**

**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K027

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7

MAGLC (ug/m3): 2660

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install would not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K028 - Vision coater no. 2 with natural gas drying oven no. 179	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 13.2 pounds per day and 2.4 tons per year from coating materials. See A.I.2.c below.
	OAC rule 3745-21-09(U)(1)(i)	This rule also include the requirements of OAC rule 3745-21-09(U)(1)(i) and OAC rule 3745-31-05(C).
	OAC rule 3745-31-05(C)	3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.
		See A.I.2.a and A.I.2 b below.

**2. Additional Terms and Conditions**

- 2.a The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.
- 2.b The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

- 2.c Based upon the permittee's application, there are no cleanup materials associated with this emissions unit.

## II. Operational Restrictions

1. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not cause volatile organic compound emissions to exceed 99.5 tons, based upon a rolling, 12-month summation, as follows:
  - a. The maximum annual volatile organic compound emissions from emissions unit K010 shall not exceed 16.3 tons per year (the corresponding material usage shall not exceed 326 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures), in accordance with PTI number 02-15400 issued on October 16, 2001.
  - b. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis and exempt sources, shall not exceed 83.2 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures.
  - c. The permittee shall comply with this limitation upon issuance of this permit through the use of past operating records.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each day for this coating line (K028):
  - a. The name and identification number of each coating, as applied;
  - b. The volume, in gallons, of each coating, as applied, in gallons;
  - c. The VOC content of each coating, as applied, in pounds per gallon;
  - d. The total VOC emissions from all coatings employed [summation of (b x c) for all coatings]; and
  - e. The VOC content of each coating, excluding water and exempt solvents, in pounds per gallon.

2. The permittee shall collect and record the following information for purpose of determining annual VOC emissions for this coating line (K028):
  - a. The total VOC emissions from all coatings employed (summation of A.III.1.d above for each month), in pounds or tons.
3. The permittee shall collect and record the following information each month:
  - a. For all coating lines at the facility as denoted in terms A.I.2.a and A.I.2.b above, including all deminis and exempt coating lines:
    - i. The name and identification number of each coating, as applied;
    - ii. The volume, in gallons, of each coating, as applied;
    - iii. The individual HAP content for each HAP in each coating, as applied, in pounds per gallon;
    - iv. The combined HAP contents for each HAP in each coating, as applied, in pounds per gallon;
    - v. The total HAP emissions for all coating lines of each single HAP [summation of (ii x iii) for all coatings; for coating lines with control equipment (ii x iii) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions]; and
    - vi. The total combined HAP emissions for all coating lines [summation of (ii x iv) for all HAPs emitted from all coating lines; for coating lines with control equipment (ii x iv) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions].
  - b. For all combustion sources of HAPs at the facility as denoted in terms A.I.2.a and A.I.2.b above:
    - i. The total volume of natural gas burned; and
    - ii. The total HAP emissions calculated using emission factors from AP-42, Section 1.4, 7/98 or any later edition.
  - c. The total combined HAP emissions for all emissions units of each single HAP and total combined HAPs [summation of III.3.a.v and III.3.a.vi for all HAPs emitted by the coating lines (single HAP and combined HAPs, respectively) and III.3.b.ii for all HAP emissions from combustion sources] per rolling 12-month period.

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**Forest City Technologies Inc Plant 2/4**

**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K028

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

1. The permittee shall notify the Ohio EPA Northeast District Office in writing of any daily record showing the use of non-complying coatings (VOC content greater than 3.0 pounds VOC per gallon, excluding water and exempt solvents). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
2. The permittee shall submit deviation (excursion) reports which identify each day where the daily VOC emission rate exceeded 13.2 pounds per day for this emissions unit (K028). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
3. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of any single HAP from all emissions units at the facility exceeded 9.9 tons per year, and the actual rolling, 12-month emissions of each such single HAP for each such month.
4. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of combined HAPs from all emissions units at the facility exceeded 24.9 tons per year, and the actual rolling, 12-month emissions of combined HAPs for each such month.
5. The permittee shall submit annual reports which specify the actual annual VOC emissions for this emissions unit (K028). The reports shall be submitted by January 31 of each year and cover the previous calendar year.
6. The permittee shall submit annual reports which summarize the facility-wide emissions of each single HAP and combined HAPs from all emissions units at the facility. The reports shall include emission calculations, be submitted by January 31 of each year, and cover the previous calendar year.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
  
VOC emissions shall not exceed 13.2 pounds per day.  
  
Applicable Compliance Method:  
  
Compliance shall be based upon the record keeping requirements in Section A.III.1.
  - b. Emission Limitation:

3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.1 and the testing requirements in Section A.V.2.

c. Emission Limitation:

VOC emissions shall not exceed 2.4 tons per year.

Applicable Compliance Method:

Compliance shall be determined by summing the daily VOC emission rate in Section A.III.1 for the entire year.

d. Emission Limitation:

The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of HAP emissions for each single HAP.

e. Emission Limitation:

The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of combined HAP emissions.

2. OAC rule 3745-21-10(B). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and

related coatings, respectively. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.”

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K028 - Vision coater no. 2 with natural gas drying oven no. 179	None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (K028) was evaluated based on the actual materials employed and design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: butyl cellosolve  
 TLV (ug/m3): 121,000  
 Maximum Hourly Emission Rate (g/s): 1.11  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7  
 MAGLC (ug/m3): 2880

Pollutant: N-butanol  
 TLV (ug/m3): 112,000  
 Maximum Hourly Emission Rate (g/s): 1.05

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**Forest City Technologies Inc Plant 2/4**

**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K028

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7

MAGLC (ug/m3): 2660

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install would not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

#### IV. Reporting Requirements

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K029 - Auto nut coater no. 5 with natural gas drying oven no. 159	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 11.44 pounds per day and 2.1 tons per year from coating materials. See A.I.2.c below.
	OAC rule 3745-21-09(U)(1)(i)	This rule also include the requirements of OAC rule 3745-21-09(U)(1)(i) and OAC rule 3745-31-05(C).
	OAC rule 3745-31-05(C)	3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.
		See A.I.2.a and A.I.2 b below.

**2. Additional Terms and Conditions**

- 2.a The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.
- 2.b The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

- 2.c Based upon the permittee's application, there are no cleanup materials associated with this emissions unit.

## II. Operational Restrictions

1. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K035, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not cause volatile organic compound emissions to exceed 99.5 tons, based upon a rolling, 12-month summation, as follows:
  - a. The maximum annual volatile organic compound emissions from emissions unit K010 shall not exceed 16.3 tons per year (the corresponding material usage shall not exceed 326 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures), in accordance with PTI number 02-15400 issued on October 16, 2001.
  - b. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K035, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis and exempt sources, shall not exceed 83.2 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures.
  - c. The permittee shall comply with this limitation upon issuance of this permit through the use of past operating records.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each day for this coating line (K029):
  - a. The name and identification number of each coating, as applied;
  - b. The volume, in gallons, of each coating, as applied, in gallons;
  - c. The VOC content of each coating, as applied, in pounds per gallon;
  - d. The total VOC emissions from all coatings employed [summation of (b x c) for all coatings]; and
  - e. The VOC content of each coating, excluding water and exempt solvents, in pounds per gallon.

2. The permittee shall collect and record the following information for purpose of determining annual VOC emissions for this coating line (K029):
  - a. The total VOC emissions from all coatings employed (summation of A.III.1.d above for each month), in pounds or tons.
  
3. The permittee shall collect and record the following information each month:
  - a. For all coating lines at the facility as denoted in terms A.I.2.a and A.I.2.b above, including all deminis and exempt coating lines:
    - i. The name and identification number of each coating, as applied;
    - ii. The volume, in gallons, of each coating, as applied;
    - iii. The individual HAP content for each HAP in each coating, as applied, in pounds per gallon;
    - iv. The combined HAP contents for each HAP in each coating, as applied, in pounds per gallon;
    - v. The total HAP emissions for all coating lines of each single HAP [summation of (ii x iii) for all coatings; for coating lines with control equipment (ii x iii) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions]; and
    - vi. The total combined HAP emissions for all coating lines [summation of (ii x iv) for all HAPs emitted from all coating lines; for coating lines with control equipment (ii x iv) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions].
  - b. For all combustion sources of HAPs at the facility as denoted in terms A.I.2.a and A.I.2.b above:
    - i. The total volume of natural gas burned; and
    - ii. The total HAP emissions calculated using emission factors from AP-42, Section 1.4, 7/98 or any later edition.
  - c. The total combined HAP emissions for all emissions units of each single HAP and total combined HAPs [summation of III.3.a.v and III.3.a.vi for all HAPs emitted by the coating lines (single HAP and combined HAPs, respectively) and III.3.b.ii for all HAP emissions from combustion sources] per rolling 12-month period.

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**Forest City Technologies Inc Plant 2/4**

**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K029

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

1. The permittee shall notify the Ohio EPA Northeast District Office in writing of any daily record showing the use of non-complying coatings (VOC content greater than 3.0 pounds VOC per gallon, excluding water and exempt solvents). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
2. The permittee shall submit deviation (excursion) reports which identify each day where the daily VOC emission rate exceeded 11.44 pounds per day for this emissions unit (K029). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
3. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of any single HAP from all emissions units at the facility exceeded 9.9 tons per year, and the actual rolling, 12-month emissions of each such single HAP for each such month.
4. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of combined HAPs from all emissions units at the facility exceeded 24.9 tons per year, and the actual rolling, 12-month emissions of combined HAPs for each such month.
5. The permittee shall submit annual reports which specify the actual annual VOC emissions for this emissions unit (K029). The reports shall be submitted by January 31 of each year and cover the previous calendar year.
6. The permittee shall submit annual reports which summarize the facility-wide emissions of each single HAP and combined HAPs from all emissions units at the facility. The reports shall include emission calculations, be submitted by January 31 of each year, and cover the previous calendar year.

#### **V. Testing Requirements**

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

VOC emissions shall not exceed 11.44 pounds per day.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.1.
  - b. Emission Limitation:

3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.1 and the testing requirements in Section A.V.2.

c. Emission Limitation:

VOC emissions shall not exceed 2.1 tons per year.

Applicable Compliance Method:

Compliance shall be determined by summing the daily VOC emission rate in Section A.III.1 for the entire year.

d. Emission Limitation:

The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of HAP emissions for each single HAP.

e. Emission Limitation:

The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of combined HAP emissions.

2. OAC rule 3745-21-10(B). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and

related coatings, respectively. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.”

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K029 - Auto nut coater no. 5 with natural gas drying oven no. 159	None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (K029) was evaluated based on the actual materials employed and design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: butyl cellosolve  
 TLV (ug/m3): 121,000  
 Maximum Hourly Emission Rate (g/s): 1.11  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7  
 MAGLC (ug/m3): 2880

Pollutant: N-butanol  
 TLV (ug/m3): 112,000  
 Maximum Hourly Emission Rate (g/s): 1.05

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**Forest City Technologies Inc Plant 2/4**

**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K029

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7

MAGLC (ug/m3): 2660

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install would not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K030 - Auto nut coater no. 6 with natural gas drying oven no. 19	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 11.44 pounds per day and 2.1 tons per year from coating materials. See A.I.2.c below.
	OAC rule 3745-21-09(U)(1)(i)	This rule also include the requirements of OAC rule 3745-21-09(U)(1)(i) and OAC rule 3745-31-05(C).
	OAC rule 3745-31-05(C)	3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.
		See A.I.2.a and A.I.2 b below.

**2. Additional Terms and Conditions**

- 2.a The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.
- 2.b The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

- 2.c Based upon the permittee's application, there are no cleanup materials associated with this emissions unit.

## II. Operational Restrictions

1. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K035, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not cause volatile organic compound emissions to exceed 99.5 tons, based upon a rolling, 12-month summation, as follows:
  - a. The maximum annual volatile organic compound emissions from emissions unit K010 shall not exceed 16.3 tons per year (the corresponding material usage shall not exceed 326 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures), in accordance with PTI number 02-15400 issued on October 16, 2001.
  - b. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K035, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis and exempt sources, shall not exceed 83.2 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures.
  - c. The permittee shall comply with this limitation upon issuance of this permit through the use of past operating records.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each day for this coating line (K030):
  - a. The name and identification number of each coating, as applied;
  - b. The volume, in gallons, of each coating, as applied, in gallons;
  - c. The VOC content of each coating, as applied, in pounds per gallon;
  - d. The total VOC emissions from all coatings employed [summation of (b x c) for all coatings]; and
  - e. The VOC content of each coating, excluding water and exempt solvents, in pounds per gallon.

2. The permittee shall collect and record the following information for purpose of determining annual VOC emissions for this coating line (K030):
  - a. The total VOC emissions from all coatings employed (summation of A.III.1.d above for each month), in pounds or tons.
3. The permittee shall collect and record the following information each month:
  - a. For all coating lines at the facility as denoted in terms A.I.2.a and A.I.2.b above, including all deminis and exempt coating lines:
    - i. The name and identification number of each coating, as applied;
    - ii. The volume, in gallons, of each coating, as applied;
    - iii. The individual HAP content for each HAP in each coating, as applied, in pounds per gallon;
    - iv. The combined HAP contents for each HAP in each coating, as applied, in pounds per gallon;
    - v. The total HAP emissions for all coating lines of each single HAP [summation of (ii x iii) for all coatings; for coating lines with control equipment (ii x iii) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions]; and
    - vi. The total combined HAP emissions for all coating lines [summation of (ii x iv) for all HAPs emitted from all coating lines; for coating lines with control equipment (ii x iv) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions].
  - b. For all combustion sources of HAPs at the facility as denoted in terms A.I.2.a and A.I.2.b above:
    - i. The total volume of natural gas burned; and
    - ii. The total HAP emissions calculated using emission factors from AP-42, Section 1.4, 7/98 or any later edition.
  - c. The total combined HAP emissions for all emissions units of each single HAP and total combined HAPs [summation of III.3.a.v and III.3.a.vi for all HAPs emitted by the coating lines (single HAP and combined HAPs, respectively) and III.3.b.ii for all HAP emissions from combustion sources] per rolling 12-month period.

**Forest City Technologies Inc Plant 2/4**

**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K030

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

1. The permittee shall notify the Ohio EPA Northeast District Office in writing of any daily record showing the use of non-complying coatings (VOC content greater than 3.0 pounds VOC per gallon, excluding water and exempt solvents). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
2. The permittee shall submit deviation (excursion) reports which identify each day where the daily VOC emission rate exceeded 11.44 pounds per day for this emissions unit (K030). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
3. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of any single HAP from all emissions units at the facility exceeded 9.9 tons per year, and the actual rolling, 12-month emissions of each such single HAP for each such month.
4. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of combined HAPs from all emissions units at the facility exceeded 24.9 tons per year, and the actual rolling, 12-month emissions of combined HAPs for each such month.
5. The permittee shall submit annual reports which specify the actual annual VOC emissions for this emissions unit (K030). The reports shall be submitted by January 31 of each year and cover the previous calendar year.
6. The permittee shall submit annual reports which summarize the facility-wide emissions of each single HAP and combined HAPs from all emissions units at the facility. The reports shall include emission calculations, be submitted by January 31 of each year, and cover the previous calendar year.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
  
VOC emissions shall not exceed 11.44 pounds per day.  
  
Applicable Compliance Method:  
  
Compliance shall be based upon the record keeping requirements in Section A.III.1.
  - b. Emission Limitation:

3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.1 and the testing requirements in Section A.V.2.

c. Emission Limitation:

VOC emissions shall not exceed 2.1 tons per year.

Applicable Compliance Method:

Compliance shall be determined by summing the daily VOC emission rate in Section A.III.1 for the entire year.

d. Emission Limitation:

The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of HAP emissions for each single HAP.

e. Emission Limitation:

The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of combined HAP emissions.

2. OAC rule 3745-21-10(B). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and

related coatings, respectively. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.”

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K030 - Auto nut coater no. 6 with natural gas drying oven no. 19	None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (K030) was evaluated based on the actual materials employed and design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: butyl cellosolve  
 TLV (ug/m3): 121,000  
 Maximum Hourly Emission Rate (g/s): 1.11  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7  
 MAGLC (ug/m3): 2880

Pollutant: N-butanol  
 TLV (ug/m3): 112,000  
 Maximum Hourly Emission Rate (g/s): 1.05

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**Forest City Technologies Inc Plant 2/4**

**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K030

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7

MAGLC (ug/m3): 2660

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install would not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K031 - Plug coater no. 1 with natural gas drying oven no. 208	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 21.12 pounds per day and 3.9 tons per year from coating materials. See A.I.2.c below.
	OAC rule 3745-21-09(U)(1)(i)	This rule also include the requirements of OAC rule 3745-21-09(U)(1)(i) and OAC rule 3745-31-05(C).
	OAC rule 3745-31-05(C)	3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.
		See A.I.2.a and A.I.2 b below.

**2. Additional Terms and Conditions**

- 2.a The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.
- 2.b The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

- 2.c Based upon the permittee's application, there are no cleanup materials associated with this emissions unit.

## II. Operational Restrictions

1. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K035, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not cause volatile organic compound emissions to exceed 99.5 tons, based upon a rolling, 12-month summation, as follows:
  - a. The maximum annual volatile organic compound emissions from emissions unit K010 shall not exceed 16.3 tons per year (the corresponding material usage shall not exceed 326 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures), in accordance with PTI number 02-15400 issued on October 16, 2001.
  - b. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K035, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis and exempt sources, shall not exceed 83.2 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures.
  - c. The permittee shall comply with this limitation upon issuance of this permit through the use of past operating records.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each day for this coating line (K031):
  - a. The name and identification number of each coating, as applied;
  - b. The volume, in gallons, of each coating, as applied, in gallons;
  - c. The VOC content of each coating, as applied, in pounds per gallon;
  - d. The total VOC emissions from all coatings employed [summation of (b x c) for all coatings]; and
  - e. The VOC content of each coating, excluding water and exempt solvents, in pounds per gallon.

2. The permittee shall collect and record the following information for purpose of determining annual VOC emissions for this coating line (K031):
  - a. The total VOC emissions from all coatings employed (summation of A.III.1.d above for each month), in pounds or tons.
3. The permittee shall collect and record the following information each month:
  - a. For all coating lines at the facility as denoted in terms A.I.2.a and A.I.2.b above, including all deminis and exempt coating lines:
    - i. The name and identification number of each coating, as applied;
    - ii. The volume, in gallons, of each coating, as applied;
    - iii. The individual HAP content for each HAP in each coating, as applied, in pounds per gallon;
    - iv. The combined HAP contents for each HAP in each coating, as applied, in pounds per gallon;
    - v. The total HAP emissions for all coating lines of each single HAP [summation of (ii x iii) for all coatings; for coating lines with control equipment (ii x iii) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions]; and
    - vi. The total combined HAP emissions for all coating lines [summation of (ii x iv) for all HAPs emitted from all coating lines; for coating lines with control equipment (ii x iv) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions].
  - b. For all combustion sources of HAPs at the facility as denoted in terms A.I.2.a and A.I.2.b above:
    - i. The total volume of natural gas burned; and
    - ii. The total HAP emissions calculated using emission factors from AP-42, Section 1.4, 7/98 or any later edition.
  - c. The total combined HAP emissions for all emissions units of each single HAP and total combined HAPs [summation of III.3.a.v and III.3.a.vi for all HAPs emitted by the coating lines (single HAP and combined HAPs, respectively) and III.3.b.ii for all HAP emissions from combustion sources] per rolling 12-month period.

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**Forest City Technologies Inc Plant 2/4**

**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K031

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

1. The permittee shall notify the Ohio EPA Northeast District Office in writing of any daily record showing the use of non-complying coatings (VOC content greater than 3.0 pounds VOC per gallon, excluding water and exempt solvents). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
2. The permittee shall submit deviation (excursion) reports which identify each day where the daily VOC emission rate exceeded 21.12 pounds per day for this emissions unit (K031). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
3. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of any single HAP from all emissions units at the facility exceeded 9.9 tons per year, and the actual rolling, 12-month emissions of each such single HAP for each such month.
4. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of combined HAPs from all emissions units at the facility exceeded 24.9 tons per year, and the actual rolling, 12-month emissions of combined HAPs for each such month.
5. The permittee shall submit annual reports which specify the actual annual VOC emissions for this emissions unit (K031). The reports shall be submitted by January 31 of each year and cover the previous calendar year.
6. The permittee shall submit annual reports which summarize the facility-wide emissions of each single HAP and combined HAPs from all emissions units at the facility. The reports shall include emission calculations, be submitted by January 31 of each year, and cover the previous calendar year.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
  
VOC emissions shall not exceed 21.12 pounds per day.  
  
Applicable Compliance Method:  
  
Compliance shall be based upon the record keeping requirements in Section A.III.1.
  - b. Emission Limitation:

3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.1 and the testing requirements in Section A.V.2.

c. Emission Limitation:

VOC emissions shall not exceed 3.9 tons per year.

Applicable Compliance Method:

Compliance shall be determined by summing the daily VOC emission rate in Section A.III.1 for the entire year.

d. Emission Limitation:

The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of HAP emissions for each single HAP.

e. Emission Limitation:

The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of combined HAP emissions.

2. OAC rule 3745-21-10(B). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and

related coatings, respectively. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.”

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K031 - Plug coater no. 1 with natural gas drying oven no. 208	None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (K031) was evaluated based on the actual materials employed and design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: butyl cellosolve  
 TLV (ug/m3): 121,000  
 Maximum Hourly Emission Rate (g/s): 1.11  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7  
 MAGLC (ug/m3): 2880

Pollutant: N-butanol  
 TLV (ug/m3): 112,000  
 Maximum Hourly Emission Rate (g/s): 1.05

**Forest City Technologies Inc Plant 2/4**

**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K031

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7

MAGLC (ug/m3): 2660

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install would not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K032 - Plug coater no. 5 with natural gas drying oven no. 33	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 15.84 pounds per day and 2.9 tons per year from coating materials. See A.I.2.c below.
	OAC rule 3745-21-09(U)(1)(i)	This rule also include the requirements of OAC rule 3745-21-09(U)(1)(i) and OAC rule 3745-31-05(C).
	OAC rule 3745-31-05(C)	3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.
		See A.I.2.a and A.I.2 b below.

**2. Additional Terms and Conditions**

- 2.a The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.
- 2.b The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

- 2.c Based upon the permittee's application, there are no cleanup materials associated with this emissions unit.

## II. Operational Restrictions

1. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K035, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not cause volatile organic compound emissions to exceed 99.5 tons, based upon a rolling, 12-month summation, as follows:
  - a. The maximum annual volatile organic compound emissions from emissions unit K010 shall not exceed 16.3 tons per year (the corresponding material usage shall not exceed 326 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures), in accordance with PTI number 02-15400 issued on October 16, 2001.
  - b. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K035, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis and exempt sources, shall not exceed 83.2 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures.
  - c. The permittee shall comply with this limitation upon issuance of this permit through the use of past operating records.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each day for this coating line (K032):
  - a. The name and identification number of each coating, as applied;
  - b. The volume, in gallons, of each coating, as applied, in gallons;
  - c. The VOC content of each coating, as applied, in pounds per gallon;
  - d. The total VOC emissions from all coatings employed [summation of (b x c) for all coatings]; and
  - e. The VOC content of each coating, excluding water and exempt solvents, in pounds per gallon.

2. The permittee shall collect and record the following information for purpose of determining annual VOC emissions for this coating line (K032):
  - a. The total VOC emissions from all coatings employed (summation of A.III.1.d above for each month), in pounds or tons.
3. The permittee shall collect and record the following information each month:
  - a. For all coating lines at the facility as denoted in terms A.I.2.a and A.I.2.b above, including all deminis and exempt coating lines:
    - i. The name and identification number of each coating, as applied;
    - ii. The volume, in gallons, of each coating, as applied;
    - iii. The individual HAP content for each HAP in each coating, as applied, in pounds per gallon;
    - iv. The combined HAP contents for each HAP in each coating, as applied, in pounds per gallon;
    - v. The total HAP emissions for all coating lines of each single HAP [summation of (ii x iii) for all coatings; for coating lines with control equipment (ii x iii) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions]; and
    - vi. The total combined HAP emissions for all coating lines [summation of (ii x iv) for all HAPs emitted from all coating lines; for coating lines with control equipment (ii x iv) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions].
  - b. For all combustion sources of HAPs at the facility as denoted in terms A.I.2.a and A.I.2.b above:
    - i. The total volume of natural gas burned; and
    - ii. The total HAP emissions calculated using emission factors from AP-42, Section 1.4, 7/98 or any later edition.
  - c. The total combined HAP emissions for all emissions units of each single HAP and total combined HAPs [summation of III.3.a.v and III.3.a.vi for all HAPs emitted by the coating lines (single HAP and combined HAPs, respectively) and III.3.b.ii for all HAP emissions from combustion sources] per rolling 12-month period.

**Forest City Technologies Inc Plant 2/4**

**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K032

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

1. The permittee shall notify the Ohio EPA Northeast District Office in writing of any daily record showing the use of non-complying coatings (VOC content greater than 3.0 pounds VOC per gallon, excluding water and exempt solvents). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
2. The permittee shall submit deviation (excursion) reports which identify each day where the daily VOC emission rate exceeded 15.84 pounds per day for this emissions unit (K032). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
3. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of any single HAP from all emissions units at the facility exceeded 9.9 tons per year, and the actual rolling, 12-month emissions of each such single HAP for each such month.
4. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of combined HAPs from all emissions units at the facility exceeded 24.9 tons per year, and the actual rolling, 12-month emissions of combined HAPs for each such month.
5. The permittee shall submit annual reports which specify the actual annual VOC emissions for this emissions unit (K032). The reports shall be submitted by January 31 of each year and cover the previous calendar year.
6. The permittee shall submit annual reports which summarize the facility-wide emissions of each single HAP and combined HAPs from all emissions units at the facility. The reports shall include emission calculations, be submitted by January 31 of each year, and cover the previous calendar year.

#### **V. Testing Requirements**

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

VOC emissions shall not exceed 15.84 pounds per day.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.1.
  - b. Emission Limitation:

3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.1 and the testing requirements in Section A.V.2.

c. Emission Limitation:

VOC emissions shall not exceed 2.9 tons per year.

Applicable Compliance Method:

Compliance shall be determined by summing the daily VOC emission rate in Section A.III.1 for the entire year.

d. Emission Limitation:

The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of HAP emissions for each single HAP.

e. Emission Limitation:

The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of combined HAP emissions.

2. OAC rule 3745-21-10(B). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and

related coatings, respectively. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.”

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K032 - Plug coater no. 5 with natural gas drying oven no. 33	None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (K032) was evaluated based on the actual materials employed and design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: butyl cellosolve  
 TLV (ug/m3): 121,000  
 Maximum Hourly Emission Rate (g/s): 1.11  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7  
 MAGLC (ug/m3): 2880

Pollutant: N-butanol  
 TLV (ug/m3): 112,000  
 Maximum Hourly Emission Rate (g/s): 1.05

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**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K032

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7

MAGLC (ug/m3): 2660

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install would not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K033 - Plug coater no. 6 with natural gas drying oven no. 34	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 17.6 pounds per day and 3.2 tons per year from coating materials. See A.I.2.c below.
	OAC rule 3745-21-09(U)(1)(i)	This rule also include the requirements of OAC rule 3745-21-09(U)(1)(i) and OAC rule 3745-31-05(C).
	OAC rule 3745-31-05(C)	3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.
		See A.I.2.a and A.I.2 b below.

**2. Additional Terms and Conditions**

- 2.a The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.
- 2.b The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

- 2.c Based upon the permittee's application, there are no cleanup materials associated with this emissions unit.

## II. Operational Restrictions

1. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K035, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not cause volatile organic compound emissions to exceed 99.5 tons, based upon a rolling, 12-month summation, as follows:
  - a. The maximum annual volatile organic compound emissions from emissions unit K010 shall not exceed 16.3 tons per year (the corresponding material usage shall not exceed 326 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures), in accordance with PTI number 02-15400 issued on October 16, 2001.
  - b. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K035, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis and exempt sources, shall not exceed 83.2 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures.
  - c. The permittee shall comply with this limitation upon issuance of this permit through the use of past operating records.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each day for this coating line (K033):
  - a. The name and identification number of each coating, as applied;
  - b. The volume, in gallons, of each coating, as applied, in gallons;
  - c. The VOC content of each coating, as applied, in pounds per gallon;
  - d. The total VOC emissions from all coatings employed [summation of (b x c) for all coatings]; and
  - e. The VOC content of each coating, excluding water and exempt solvents, in pounds per gallon.

2. The permittee shall collect and record the following information for purpose of determining annual VOC emissions for this coating line (K033):
  - a. The total VOC emissions from all coatings employed (summation of A.III.1.d above for each month), in pounds or tons.
3. The permittee shall collect and record the following information each month:
  - a. For all coating lines at the facility as denoted in terms A.I.2.a and A.I.2.b above, including all deminis and exempt coating lines:
    - i. The name and identification number of each coating, as applied;
    - ii. The volume, in gallons, of each coating, as applied;
    - iii. The individual HAP content for each HAP in each coating, as applied, in pounds per gallon;
    - iv. The combined HAP contents for each HAP in each coating, as applied, in pounds per gallon;
    - v. The total HAP emissions for all coating lines of each single HAP [summation of (ii x iii) for all coatings; for coating lines with control equipment (ii x iii) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions]; and
    - vi. The total combined HAP emissions for all coating lines [summation of (ii x iv) for all HAPs emitted from all coating lines; for coating lines with control equipment (ii x iv) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions].
  - b. For all combustion sources of HAPs at the facility as denoted in terms A.I.2.a and A.I.2.b above:
    - i. The total volume of natural gas burned; and
    - ii. The total HAP emissions calculated using emission factors from AP-42, Section 1.4, 7/98 or any later edition.
  - c. The total combined HAP emissions for all emissions units of each single HAP and total combined HAPs [summation of III.3.a.v and III.3.a.vi for all HAPs emitted by the coating lines (single HAP and combined HAPs, respectively) and III.3.b.ii for all HAP emissions from combustion sources] per rolling 12-month period.

**Forest City Technologies Inc Plant 2/4**

**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K033

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

1. The permittee shall notify the Ohio EPA Northeast District Office in writing of any daily record showing the use of non-complying coatings (VOC content greater than 3.0 pounds VOC per gallon, excluding water and exempt solvents). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
2. The permittee shall submit deviation (excursion) reports which identify each day where the daily VOC emission rate exceeded 17.6 pounds per day for this emissions unit (K033). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
3. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of any single HAP from all emissions units at the facility exceeded 9.9 tons per year, and the actual rolling, 12-month emissions of each such single HAP for each such month.
4. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of combined HAPs from all emissions units at the facility exceeded 24.9 tons per year, and the actual rolling, 12-month emissions of combined HAPs for each such month.
5. The permittee shall submit annual reports which specify the actual annual VOC emissions for this emissions unit (K033). The reports shall be submitted by January 31 of each year and cover the previous calendar year.
6. The permittee shall submit annual reports which summarize the facility-wide emissions of each single HAP and combined HAPs from all emissions units at the facility. The reports shall include emission calculations, be submitted by January 31 of each year, and cover the previous calendar year.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
  
VOC emissions shall not exceed 17.6 pounds per day.  
  
Applicable Compliance Method:  
  
Compliance shall be based upon the record keeping requirements in Section A.III.1.
  - b. Emission Limitation:

3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.1 and the testing requirements in Section A.V.2.

c. Emission Limitation:

VOC emissions shall not exceed 3.2 tons per year.

Applicable Compliance Method:

Compliance shall be determined by summing the daily VOC emission rate in Section A.III.1 for the entire year.

d. Emission Limitation:

The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of HAP emissions for each single HAP.

e. Emission Limitation:

The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of combined HAP emissions.

2. OAC rule 3745-21-10(B). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and

related coatings, respectively. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.”

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K033 - Plug coater no. 6 with natural gas drying oven no. 34	None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (K033) was evaluated based on the actual materials employed and design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: butyl cellosolve  
 TLV (ug/m3): 121,000  
 Maximum Hourly Emission Rate (g/s): 1.11  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7  
 MAGLC (ug/m3): 2880

Pollutant: N-butanol  
 TLV (ug/m3): 112,000  
 Maximum Hourly Emission Rate (g/s): 1.05

**Forest City Technologies Inc Plant 2/4**

**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K033

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7

MAGLC (ug/m3): 2660

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install would not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

#### IV. Reporting Requirements

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K034 - Bolt coater no. 13 with natural gas drying oven no. 16	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 15.84 pounds per day and 2.9 tons per year from coating materials. See A.I.2.c below.
	OAC rule 3745-21-09(U)(1)(i)	This rule also include the requirements of OAC rule 3745-21-09(U)(1)(i) and OAC rule 3745-31-05(C).
	OAC rule 3745-31-05(C)	3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.
		See A.I.2.a and A.I.2 b below.

**2. Additional Terms and Conditions**

- 2.a The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.
- 2.b The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

- 2.c Based upon the permittee's application, there are no cleanup materials associated with this emissions unit.

## II. Operational Restrictions

1. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K035, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not cause volatile organic compound emissions to exceed 99.5 tons, based upon a rolling, 12-month summation, as follows:
  - a. The maximum annual volatile organic compound emissions from emissions unit K010 shall not exceed 16.3 tons per year (the corresponding material usage shall not exceed 326 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures), in accordance with PTI number 02-15400 issued on October 16, 2001.
  - b. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K035, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis and exempt sources, shall not exceed 83.2 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures.
  - c. The permittee shall comply with this limitation upon issuance of this permit through the use of past operating records.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each day for this coating line (K034):
  - a. The name and identification number of each coating, as applied;
  - b. The volume, in gallons, of each coating, as applied, in gallons;
  - c. The VOC content of each coating, as applied, in pounds per gallon;
  - d. The total VOC emissions from all coatings employed [summation of (b x c) for all coatings]; and
  - e. The VOC content of each coating, excluding water and exempt solvents, in pounds per gallon.

2. The permittee shall collect and record the following information for purpose of determining annual VOC emissions for this coating line (K034):
  - a. The total VOC emissions from all coatings employed (summation of A.III.1.d above for each month), in pounds or tons.
3. The permittee shall collect and record the following information each month:
  - a. For all coating lines at the facility as denoted in terms A.I.2.a and A.I.2.b above, including all deminis and exempt coating lines:
    - i. The name and identification number of each coating, as applied;
    - ii. The volume, in gallons, of each coating, as applied;
    - iii. The individual HAP content for each HAP in each coating, as applied, in pounds per gallon;
    - iv. The combined HAP contents for each HAP in each coating, as applied, in pounds per gallon;
    - v. The total HAP emissions for all coating lines of each single HAP [summation of (ii x iii) for all coatings; for coating lines with control equipment (ii x iii) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions]; and
    - vi. The total combined HAP emissions for all coating lines [summation of (ii x iv) for all HAPs emitted from all coating lines; for coating lines with control equipment (ii x iv) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions].
  - b. For all combustion sources of HAPs at the facility as denoted in terms A.I.2.a and A.I.2.b above:
    - i. The total volume of natural gas burned; and
    - ii. The total HAP emissions calculated using emission factors from AP-42, Section 1.4, 7/98 or any later edition.
  - c. The total combined HAP emissions for all emissions units of each single HAP and total combined HAPs [summation of III.3.a.v and III.3.a.vi for all HAPs emitted by the coating lines (single HAP and combined HAPs, respectively) and III.3.b.ii for all HAP emissions from combustion sources] per rolling 12-month period.

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**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K034

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

1. The permittee shall notify the Ohio EPA Northeast District Office in writing of any daily record showing the use of non-complying coatings (VOC content greater than 3.0 pounds VOC per gallon, excluding water and exempt solvents). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
2. The permittee shall submit deviation (excursion) reports which identify each day where the daily VOC emission rate exceeded 15.84 pounds per day for this emissions unit (K034). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
3. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of any single HAP from all emissions units at the facility exceeded 9.9 tons per year, and the actual rolling, 12-month emissions of each such single HAP for each such month.
4. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of combined HAPs from all emissions units at the facility exceeded 24.9 tons per year, and the actual rolling, 12-month emissions of combined HAPs for each such month.
5. The permittee shall submit annual reports which specify the actual annual VOC emissions for this emissions unit (K034). The reports shall be submitted by January 31 of each year and cover the previous calendar year.
6. The permittee shall submit annual reports which summarize the facility-wide emissions of each single HAP and combined HAPs from all emissions units at the facility. The reports shall include emission calculations, be submitted by January 31 of each year, and cover the previous calendar year.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
  
VOC emissions shall not exceed 15.84 pounds per day.  
  
Applicable Compliance Method:  
  
Compliance shall be based upon the record keeping requirements in Section A.III.1.
  - b. Emission Limitation:

3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.1 and the testing requirements in Section A.V.2.

c. Emission Limitation:

VOC emissions shall not exceed 2.9 tons per year.

Applicable Compliance Method:

Compliance shall be determined by summing the daily VOC emission rate in Section A.III.1 for the entire year.

d. Emission Limitation:

The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of HAP emissions for each single HAP.

e. Emission Limitation:

The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of combined HAP emissions.

2. OAC rule 3745-21-10(B). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and

related coatings, respectively. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.”

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K034 - Bolt coater no. 13 with natural gas drying oven no. 16	None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (K034) was evaluated based on the actual materials employed and design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3..0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: butyl cellosolve  
 TLV (ug/m3): 121,000  
 Maximum Hourly Emission Rate (g/s): 1.11  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7  
 MAGLC (ug/m3): 2880

Pollutant: N-butanol  
 TLV (ug/m3): 112,000  
 Maximum Hourly Emission Rate (g/s): 1.05

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**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K034

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7

MAGLC (ug/m3): 2660

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install would not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K036 - Plug coater no. 16 with natural gas drying oven no. 209	OAC rule 3745-31-05(A)(3)  OAC rule 3745-21-09(U)(1)(i)  OAC rule 3745-31-05(C)	Volatile organic compound (VOC) emissions shall not exceed 21.12 pounds per day and 3.9 tons per year from coating materials. See A.I.2.c below.  This rule also include the requirements of OAC rule 3745-21-09(U)(1)(i) and OAC rule 3745-31-05(C).  3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.  See A.I.2.a and A.I.2 b below.

**2. Additional Terms and Conditions**

- 2.a The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.
- 2.b The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

- 2.c Based upon the permittee's application, there are no cleanup materials associated with this emissions unit.

## II. Operational Restrictions

1. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K035, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not cause volatile organic compound emissions to exceed 99.5 tons, based upon a rolling, 12-month summation, as follows:
  - a. The maximum annual volatile organic compound emissions from emissions unit K010 shall not exceed 16.3 tons per year (the corresponding material usage shall not exceed 326 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures), in accordance with PTI number 02-15400 issued on October 16, 2001.
  - b. The maximum annual volatile organic material usage from coatings and cleanup materials from emissions units K007, K009, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K035, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis and exempt sources, shall not exceed 83.2 tons, based upon a rolling, 12-month summation of the volatile organic material usage figures.
  - c. The permittee shall comply with this limitation upon issuance of this permit through the use of past operating records.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each day for this coating line (K036):
  - a. The name and identification number of each coating, as applied;
  - b. The volume, in gallons, of each coating, as applied, in gallons;
  - c. The VOC content of each coating, as applied, in pounds per gallon;
  - d. The total VOC emissions from all coatings employed [summation of (b x c) for all coatings]; and
  - e. The VOC content of each coating, excluding water and exempt solvents, in pounds per gallon.

2. The permittee shall collect and record the following information for purpose of determining annual VOC emissions for this coating line (K036):
  - a. The total VOC emissions from all coatings employed (summation of A.III.1.d above for each month), in pounds or tons.
3. The permittee shall collect and record the following information each month:
  - a. For all coating lines at the facility as denoted in terms A.I.2.a and A.I.2.b above, including all deminis and exempt coating lines:
    - i. The name and identification number of each coating, as applied;
    - ii. The volume, in gallons, of each coating, as applied;
    - iii. The individual HAP content for each HAP in each coating, as applied, in pounds per gallon;
    - iv. The combined HAP contents for each HAP in each coating, as applied, in pounds per gallon;
    - v. The total HAP emissions for all coating lines of each single HAP [summation of (ii x iii) for all coatings; for coating lines with control equipment (ii x iii) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions]; and
    - vi. The total combined HAP emissions for all coating lines [summation of (ii x iv) for all HAPs emitted from all coating lines; for coating lines with control equipment (ii x iv) shall be multiplied by the overall control efficiency determined during the most recent emission test that demonstrated that the source was in compliance and added to the total sum of HAP emissions].
  - b. For all combustion sources of HAPs at the facility as denoted in terms A.I.2.a and A.I.2.b above:
    - i. The total volume of natural gas burned; and
    - ii. The total HAP emissions calculated using emission factors from AP-42, Section 1.4, 7/98 or any later edition.
  - c. The total combined HAP emissions for all emissions units of each single HAP and total combined HAPs [summation of III.3.a.v and III.3.a.vi for all HAPs emitted by the coating lines (single HAP and combined HAPs, respectively) and III.3.b.ii for all HAP emissions from combustion sources] per rolling 12-month period.

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**Forest City Technologies Inc Plant 2/4**

**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K036

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

1. The permittee shall notify the Ohio EPA Northeast District Office in writing of any daily record showing the use of non-complying coatings (VOC content greater than 3.0 pounds VOC per gallon, excluding water and exempt solvents). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
2. The permittee shall submit deviation (excursion) reports which identify each day where the daily VOC emission rate exceeded 21.12 pounds per day for this emissions unit (K036). The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance occurs.
3. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of any single HAP from all emissions units at the facility exceeded 9.9 tons per year, and the actual rolling, 12-month emissions of each such single HAP for each such month.
4. The permittee shall submit deviation (excursion) reports which identify each month during which the rolling, 12-month emissions of combined HAPs from all emissions units at the facility exceeded 24.9 tons per year, and the actual rolling, 12-month emissions of combined HAPs for each such month.
5. The permittee shall submit annual reports which specify the actual annual VOC emissions for this emissions unit (K036). The reports shall be submitted by January 31 of each year and cover the previous calendar year.
6. The permittee shall submit annual reports which summarize the facility-wide emissions of each single HAP and combined HAPs from all emissions units at the facility. The reports shall include emission calculations, be submitted by January 31 of each year, and cover the previous calendar year.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
  
VOC emissions shall not exceed 21.12 pounds per day.  
  
Applicable Compliance Method:  
  
Compliance shall be based upon the record keeping requirements in Section A.III.1.
  - b. Emission Limitation:

3.0 pounds VOC per gallon of coating, excluding water and exempt solvents.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.1 and the testing requirements in Section A.V.2.

c. Emission Limitation:

VOC emissions shall not exceed 3.9 tons per year.

Applicable Compliance Method:

Compliance shall be determined by summing the daily VOC emission rate in Section A.III.1 for the entire year.

d. Emission Limitation:

The emissions of each single hazardous air pollutant (HAP) from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of HAP emissions for each single HAP.

e. Emission Limitation:

The emissions of the combined HAPs from emissions units K007, K009, K010, K011, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K036, K037, K050, K051, K052, and all other emission sources at the facility, including but not limited to de minimis, exempt, and combustion sources, shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section A.III.3 and maintenance of a rolling, 12-month summation of combined HAP emissions.

2. OAC rule 3745-21-10(B). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and

related coatings, respectively. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.”

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K036 - Plug coater no. 16 with natural gas drying oven no. 209	None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (K036) was evaluated based on the actual materials employed and design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant potentially emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: butyl cellosolve  
 TLV (ug/m3): 121,000  
 Maximum Hourly Emission Rate (g/s): 1.11  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7  
 MAGLC (ug/m3): 2880

Pollutant: N-butanol  
 TLV (ug/m3): 112,000  
 Maximum Hourly Emission Rate (g/s): 1.05

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**Forest City Technologies Inc Plant 2/4**

**PTI Application: 02-21600**

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

**Facility ID: 0247170841**

Emissions Unit ID: K036

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1735.7

MAGLC (ug/m3): 2660

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install would not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None