



State of Ohio Environmental Protection Agency

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Columbus, Ohio 43215

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P.O. Box 1049  
Columbus, OH 43216-1049

8/25/2009

Brent Bowers  
SONOCO PHOENIX INC - Brookline Plant  
3075 Brookline Rd. NW  
North Canton, OH 44720

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE  
Facility ID: 1677000223  
Permit Number: P0105301  
Permit Type: Administrative Modification  
County: Summit

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR
No	CEMS
No	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate ("PTIO") which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully.

Ohio EPA maintains a document entitled "Frequently Asked Questions about the PTIO". The document can be downloaded from the DAPC Web page, [www.epa.state.oh.us/dapc](http://www.epa.state.oh.us/dapc), from the "Permits" link. This document contains additional information related to your permit, such as what activities are covered under the PTIO, who has enforcement authority over the permit and Ohio EPA's authorization to inspect your facility and records. Please contact the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469 if you need assistance.

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

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

If you have any questions regarding this permit, please contact the Akron Regional Air Quality Management District. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page [www.epa.state.oh.us/dapc](http://www.epa.state.oh.us/dapc).

Sincerely,

*Michael W. Ahern*  
Michael W. Ahern, Manager  
Permit Issuance and Data Management Section, DAPC

Cc: ARAQMD

Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director





**State of Ohio Environmental Protection Agency  
Division of Air Pollution Control**

**FINAL**

**Air Pollution Permit-to-Install and Operate  
for  
SONOCO PHOENIX INC - Brookline Plant**

Facility ID: 1677000223  
Permit Number: P0105301  
Permit Type: Administrative Modification  
Issued: 8/25/2009  
Effective: 8/25/2009  
Expiration: 11/6/2013





**Air Pollution Permit-to-Install and Operate**  
for  
SONOCO PHOENIX INC - Brookline Plant

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State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**  
**Permit Number:** P0105301  
**Facility ID:** 1677000223  
**Effective Date:** 8/25/2009

## Authorization

Facility ID: 1677000223  
Application Number(s): M0000542  
Permit Number: P0105301  
Permit Description: Administrative modification to emissions units K012, K018, K020, K021, K022, and K027 to modify the record keeping for the velocity pressure of the air flow within the air duct and to emissions units K001, K004, K006, K008, and K023 to slight increase the pounds per hour and tons per year allowables (emission increases are below "De Minimis" levels).  
Permit Type: Administrative Modification  
Permit Fee: \$1,100.00  
Issue Date: 8/25/2009  
Effective Date: 8/25/2009  
Expiration Date: 11/6/2013  
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

SONOCO PHOENIX INC - Brookline Plant  
3075 BROOKLINE ROAD, N.W.  
NORTH CANTON, OH 44720

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Akron Regional Air Quality Management District  
146 South High Street, Room 904  
Akron, OH 44308  
(330)375-2480

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section 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 described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski  
Director



## Authorization (continued)

Permit Number: P0105301  
Permit Description: Administrative modification to emissions units K012, K018, K020, K021, K022, and K027 to modify the record keeping for the velocity pressure of the air flow within the air duct and to emissions units K001, K004, K006, K008, and K023 to slight increase the pounds per hour and tons per year allowables (emission increases are below "De Minimis" levels).

Permits for the following emissions unit(s) or groups of emissions units are in this document as indicated below:

**Emissions Unit ID: K012**  
Company Equipment ID: Blanked End Liner 107  
Superseded Permit Number: P0104057  
General Permit Category and Type: Not Applicable

**Emissions Unit ID: K027**  
Company Equipment ID: Post-Repair Spray 109  
Superseded Permit Number: P0104057  
General Permit Category and Type: Not Applicable

**Group Name: Group 1**

<b>Emissions Unit ID:</b>	<b>K001</b>
Company Equipment ID:	Blanked End Liner 101
Superseded Permit Number:	P0104057
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K004</b>
Company Equipment ID:	Blanked End Liner 102
Superseded Permit Number:	P0104057
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K006</b>
Company Equipment ID:	Blanked End Liner 103
Superseded Permit Number:	P0104057
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K008</b>
Company Equipment ID:	Blank End Liner 104
Superseded Permit Number:	P0104057
General Permit Category and Type:	Not Applicable

**Group Name: Group 2**

<b>Emissions Unit ID:</b>	<b>K018</b>
Company Equipment ID:	Blanked End Liner 108
Superseded Permit Number:	P0104057
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K023</b>
Company Equipment ID:	Blanked End Liner 108C
Superseded Permit Number:	P0104057
General Permit Category and Type:	Not Applicable



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 Division of Air Pollution Control

**Final Permit-to-Install and Operate**

**Permit Number:** P0105301

**Facility ID:** 1677000223

**Effective Date:** 8/25/2009

**Group Name:** Group 3

<b>Emissions Unit ID:</b>	<b>K020</b>
Company Equipment ID:	Post-Repair Spray 105
Superseded Permit Number:	P0104057
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K021</b>
Company Equipment ID:	Post-Repair Spray 106
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K022</b>
Company Equipment ID:	Post-Repair Spray 107
Superseded Permit Number:	P0104057
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**

**Permit Number:** P0105301

**Facility ID:** 1677000223

**Effective Date:** 8/25/2009

## **A. Standard Terms and Conditions**



**1. What does this permit-to-install and operate ("PTIO") allow me to do?**

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

**2. Who is responsible for complying with this permit?**

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

**3. What records must I keep under this permit?**

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

**4. What are my permit fees and when do I pay them?**

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

**5. When does my PTIO expire, and when do I need to submit my renewal application?**

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.



If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

**6. What happens to this permit if my project is delayed or I do not install or modify my source?**

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

**7. What reports must I submit under this permit?**

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

**8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?**

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

**9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?**

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

**10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?**

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Akron Regional Air Quality Management District in accordance with



OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

**11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?**

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

**12. What happens if one or more emissions units operated under this permit is/are shut down permanently?**

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

**13. Can I transfer this permit to a new owner or operator?**

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**

**Permit Number:** P0105301

**Facility ID:** 1677000223

**Effective Date:** 8/25/2009

**14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?**

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

**15. What happens if a portion of this permit is determined to be invalid?**

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



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## **B. Facility-Wide Terms and Conditions**



1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - (1) None.
  - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - (1) 1.c), 1.d)(1), 1.d)(2), 1.d)(3), 1.e), and 1.f).
  - c) The emissions of any individual Hazardous Air Pollutant (HAP), total combined HAPs, and VOC from emissions units K001, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, and K027, combined, shall not exceed 9.0 tons per year, 24.0 tons per year, and 97.44 tons per year, respectively, based upon a rolling, 12-month summation of the monthly emissions.
  - d) In order to determine compliance with the facility-wide emission limitations in 1.c) above, the permittee shall maintain monthly records of the following information for emissions units K001, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, and K027, combined:
    - (1) The permittee shall collect and record the following information each month for all materials containing any HAP<sup>1</sup> and/or VOC that are applied in the uncontrolled emissions units K001, K004, K005, K006, K007, K008, K009, K010, K011, K013, K015, K017, K019, K024, K025, and K026, combined:
      - a. the name and identification number/code of each coating, thinner, additive, cleanup material, and any other material containing any HAP and/or VOC;
      - b. the VOC content of each VOC containing material applied (and identified in "a" above) in pound(s) of VOC per gallon of each VOC containing material applied or weight fraction of VOC contained in each material applied;
      - c. the name/identification of each individual HAP contained in each material applied (and identified in "a" above) and the pound(s) of each HAP per gallon of each HAP-containing material applied or the weight fraction of each individual HAP contained in each material applied;
      - d. the number of gallons or pounds of each coating, thinner, additive, cleanup material, and other material applied during the month;
      - e. the VOC emissions from all the materials employed, in ton(s), i.e., the summation of the products of "b" times "d" for all materials applied during the month, divided by 2,000 pounds per ton;
      - f. for each individual HAP, the total emissions from all the materials employed, in ton(s), i.e., for each individual HAP, the summation of the products of "c" times



Ad@ for all the materials applied during the month, divided by 2,000 pounds per ton; and

- g. the total combined HAPs emissions from all the materials employed during the month, in ton(s), i.e., the summation of all the individual HAPs emissions from Af@ above.

<sup>1</sup>A listing of the HAPs can be found in Section 112(b) of the Clean Air Act, or can be obtained by contacting your Ohio EPA District Office or local air agency contact. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings and cleanup materials.

- (2) The permittee shall collect and record the following information each month for all materials containing any HAP<sup>1</sup> and/or VOC that are applied in each controlled emissions units K012, K016, K018, K020, K021, K022, K023, and K027:

- a. the name and identification number/code of each coating, thinner, additive, cleanup material, and any other material containing any HAP and/or VOC;
- b. the VOC content of each VOC containing material applied (and identified in "a" above) in pound(s) of VOC per gallon of each VOC containing material applied or weight fraction of VOC contained in each material applied;
- c. the name/identification of each individual HAP contained in each material applied (and identified in Aa@ above) and the pound(s) of each HAP per gallon of each HAP-containing material applied or the weight fraction of each individual HAP contained in each material applied;
- d. the number of gallons or pounds of each coating, thinner, additive, cleanup material, and other material applied during the month;
- e. the uncontrolled VOC emissions from all the materials employed, in ton(s) for each emissions unit, i.e., the summation of the products of "b" times "d" for all materials applied during the month, divided by 2,000 pounds per ton;
- f. for each individual HAP, the total uncontrolled emissions from all the materials employed, in ton(s) for each emissions unit, i.e., for each individual HAP, the summation of the products of Ac@ times Ad@ for all the materials applied during the month, divided by 2,000 pounds;
- g. the total uncontrolled combined HAPs emissions from all the materials employed during the month for each emissions unit, in ton(s), i.e., the summation of all the individual HAPs emissions from Af@ above;
- h. the calculated, controlled VOC emission rate for all the materials employed, in ton(s) for each emissions unit, i.e., the uncontrolled VOC emission rate, calculated in Ae@ above, multiplied by 1 minus the overall control efficiency for the control equipment, as determined during the most recent emissions test that demonstrated the emissions unit was in compliance;
- i. for each individual HAP, the calculated, controlled emission rate from all the materials employed, in ton(s) for each emissions unit, i.e., the total uncontrolled



individual HAP emission rate calculated in Af@ above, multiplied by 1 minus the overall control efficiency for the control equipment, as determined during the most recent emissions test that demonstrated the emissions unit was in compliance;

- j. the calculated, controlled combined HAPs emission rate for all the materials employed, in ton(s) for each emissions unit, i.e., the uncontrolled total combined HAPs emission rate, calculated in Ag@ above, multiplied by 1 minus the overall control efficiency for the control equipment, as determined during the most recent emissions test that demonstrated the emissions unit was in compliance;
- k. the calculated, controlled VOC emission rate for all the materials employed, in ton(s) for all controlled emissions units (K012, K016, K018, K020, K021, K022, K023, and K027), i.e., the summation of the VOC emissions from all emissions units in "h" above;
- l. for each individual HAP, the calculated, controlled emission rate from all the materials employed, in ton(s) for all controlled emissions units (K012, K016, K018, K020, K021, K022, K023, and K027), i.e., the summation of each individual HAP emissions from all emissions units in "i" above; and
- m. the calculated, controlled combined HAPs emission rate for all the materials employed, in ton(s) for all controlled emissions units (K012, K016, K018, K020, K021, K022, K023, and K027), i.e., the summation of the total combined HAPs emissions from all emissions units in "j" above.

<sup>1</sup>A listing of the HAPs can be found in Section 112(b) of the Clean Air Act, or can be obtained by contacting your Ohio EPA District Office or local air agency contact. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings and cleanup materials.

- (3) The permittee shall collect and record the following information each month for the entire facility (emissions units K001, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, and K027, combined):
  - a. the VOC emissions from all the materials employed, in ton(s), i.e., [d](1)e. + d)(2)k.];;
  - b. for each individual HAP, the total emissions from all the materials employed, in ton(s), for each individual HAP, i.e., [d](1)f. + d)(2)l.] for each individual HAP;
  - c. the total combined HAPs emissions from all materials employed, in ton(s), i.e., [d](1)g. + d)(1)m.];
  - d. the VOC emissions during the rolling 12-month period, i.e., the summation of all VOC emissions, as recorded in Aa@ above, for the present month plus the previous 11 months of operation, in ton(s);
  - e. for each individual HAP, the total emissions during the rolling, 12-month period, i.e., the summation of the individual HAP emissions, as recorded in Ab@ above, for the present month plus the previous 11 months of operation, in ton(s); and



- f. the total combined HAP emissions during the rolling 12-month period, i.e., the summation of all HAP emissions, as recorded in Ac@ above, for the present month plus the previous 11 months of operation, in ton(s).
- e) The permittee shall submit quarterly deviation (excursion) reports that identify:
- (1) all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
    - a. all exceedances of the rolling, 12-month VOC emission limitation;
    - b. all exceedances of the rolling, 12-month individual HAP emission limitation for each HAP; and
    - c. all exceedances of the rolling, 12-month total combined HAPs emission limitation.
  - (2) the probable cause of each deviation (excursion);
  - (3) any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
  - (4) the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- f) Compliance with the emission limitation(s) in 1.c) above shall be determined in accordance with the following method(s):
- (1) Emission Limitations:  
  
The emissions of any individual Hazardous Air Pollutant (HAP), total combined HAPs, and VOC from emissions units K001, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, and K027, combined, shall not exceed 9.0 tons per year, 24.0 tons per year, and 97.44 tons per year, respectively, based upon a rolling, 12-month summation of the monthly emissions.

Applicable Compliance Method:

Compliance with the annual emission limitations above shall be demonstrated based on record keeping requirements established in 1.d)(1), 1.d)(2), and 1.d)(3) above.



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Formulation data or USEPA Method 24 (for coatings) or 24A (for flexographic and rotogravure printing inks and related coatings) shall be used to determine the VOC contents of the coatings, thinner, additive, cleanup material, and any other material containing any VOC. Formulation data shall be used to determine the HAP contents of the coating, thinner, additive, cleanup material, and any other material containing any HAP.



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## **C. Emissions Unit Terms and Conditions**



**1. K012, Blanked End Liner 107**

**Operations, Property and/or Equipment Description:**

Blanked End Liner 107

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - a. g)(1).
  - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - a. None.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	See b)(2) and c)(1) below.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(B)(6).
b.	OAC rule 3745-21-09(B)(6)  (In lieu of complying with the pounds of VOC per gallon of solids limitation contained in OAC rule 3745-21-09(D)(2)(e))	The capture and control system shall provide not less than an 81 percent reduction, by weight, in the overall VOC emissions from the coating line and the control efficiency of the catalytic oxidizer shall not be less than 90 percent, by weight, for the VOC emissions vented to it.
c.	OAC rule 3745-31-05(D)  (Synthetic Minor to Avoid Title V and MACT applicability under 40 CFR Part 63, Subpart KKKK)	See c), d), e), and f) of Section B.1 of the Facility-Wide Terms and Conditions.



(2) Additional Terms and Conditions

- a. Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 0.74 pound per hour, nor 3.24 tons per year.

[The hourly and annual VOC emission limitations represent the emissions unit's potentials to emit. Therefore, no monitoring, record keeping, and/or reporting requirements are necessary to ensure compliance with these limitations.]

- b. All of the VOC emissions from this emissions unit shall be vented to a catalytic oxidizer that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation.

c) Operational Restrictions

- (1) The catalytic oxidizer shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The conversion efficiency of the catalyst, as determined in an annual catalyst activity test, shall be sufficient to meet the destruction efficiency and control efficiency requirements of this permit at a test temperature that is equal to that temperature at which the inlet to the catalyst bed is set. Solvent loading during the catalyst activity test shall be consistent with the test laboratory's normal testing protocol.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain the air flow in the air duct from this emissions unit at a pressure of not less than 0.100 inches of water\*, as a 3-hour average as demonstrated in d)(2) below.

\*This pressure value was estimated based on the minimum pressure restriction established for emissions unit K016. The minimum air flow pressure for this emissions unit shall be determined during the compliance test required in f)(2) below, and it shall replace the current value, upon written approval from the Akron Regional Air Quality Management District.

- (2) The permittee shall install, calibrate, operate and maintain a monitoring device to continuously measure and record the velocity pressure of the air flow within the air duct from this emissions unit at a location downstream of all individual pick-up point connections and upstream of where this duct connects to the main inlet duct to the catalytic oxidizer. The velocity pressure monitoring and recording device shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations and specifications.

The permittee shall monitor and record the duct velocity pressure for this emissions unit on a once per month basis. The monthly monitoring event shall consist of a continuous 3-hour block of time where instrument readings are taken once every 2 minutes and integrated to create a 3-hour average value. The permittee shall record each monthly 3-hour average duct velocity pressure.

- (3) Whenever the monitored 3-hour average duct velocity deviates from the minimum limit of 0.100 inches of water, the permittee shall promptly investigate the cause of the



deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the duct velocity pressure within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the duct velocity pressure immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The duct velocity pressure range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted duct velocity pressure range/limit based upon information obtained during future emission tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the duct velocity pressure range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (4) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit(s) controlled by the catalytic incinerator is/are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance. The



acceptable average temperature difference across the catalyst bed, for any 3-hour block of time (when the emissions unit(s) is/are in operation), shall not be less than 80 percent of the average temperature difference measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance. Until compliance testing has been conducted, the catalytic incinerator shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manual.

- (5) The permittee shall properly install, operate, and maintain continuous temperature monitors and recorder(s) that measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit(s) is/are in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within  $\pm 1$  percent of the temperature being measured or  $\pm 5$  degrees Fahrenheit, whichever is greater. The temperature monitors and recorder(s) shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals. The acceptable temperature settings shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted and the appropriate range for each parameter is established to demonstrate compliance. Following compliance testing, the permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:
- a. all three-hour periods of operation during which the average temperature of the process vent stream immediately before the catalyst bed is more than fifty degrees Fahrenheit below the average temperature of the process vent stream during the most recent performance test that demonstrated that the source was in compliance, and all three-hour periods of operation during which the average temperature difference across the catalyst bed is less than eighty per cent of the average temperature differences during the most recent performance test that demonstrated that the source was in compliance; and
  - b. a log or record of the operating time for the capture (collection) system, catalytic incinerator, monitoring equipment, and the associated emissions unit(s).

The permittee may use a temperature chart recorder or equivalent recording device as the log that documents the temperature differential across the catalyst bed. These records shall be maintained at the facility for a period of no less than 3 years.

- (6) Whenever the monitored parameters above deviate from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
- a. the date and time the deviation began;
  - b. the magnitude of the deviation at that time;
  - c. the date the investigation was conducted;
  - d. the name(s) of the personnel who conducted the investigation; and



- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range(s)/limit(s) specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the temperature of the exhaust gases immediately before the catalyst and the average temperature difference across the catalyst bed immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The temperature ranges are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature range(s) based upon information obtained during future emission tests that demonstrate compliance with the allowable emission rate(s) of the controlled pollutant(s). In addition, approved revisions to the temperature range(s) will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (7) The permittee shall perform a preventative maintenance inspection of the catalytic incinerator on an annual basis to evaluate the performance of the catalyst bed. Each inspection shall consist of internal and visual inspections in accordance with the manufacturer's recommendations, and shall include a physical inspection of the unit and all of the associated equipment, including but not limited to burners, controls, dampers, valves, and monitoring and recording equipment. Repair and replacement of equipment and the catalyst shall be performed as determined by the inspection. During each annual inspection a sample of the catalyst material shall be collected from the catalyst bed and used to perform a catalyst activity test. The permittee shall maintain a record of the results of each annual inspection and the results of each annual catalyst activity test.

The permittee shall also perform weekly inspections of the external integrity of the catalytic incinerator. Records shall be maintained of the inspections and the date(s) of catalyst replacement, and if only partial, the amount or percent of the total catalyst replaced.



e) Reporting Requirements

- (1) The permittee shall submit quarterly summaries of the following records:
  - a. all 3-hour blocks of time (when the emissions unit(s) was/were in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature established during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;
  - b. all 3-hour blocks of time (when the emissions unit(s) was/were in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference established during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;
  - c. any records of downtime (date and length of time) for the capture (collection) system, the catalytic incinerator, and/or the monitoring equipment when the emissions unit(s) was/were in operation; and
  - d. a log of the operating time for the capture system, catalytic incinerator, monitoring equipment, and the emissions unit(s).

These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters.

- (2) The permittee shall identify in the annual permit evaluation report (PER) the following information concerning the operations of the catalytic oxidizer during the 12-month reporting period for this emissions unit: the results of any catalyst activity test(s) along with a summary of the results of the annual inspection of the internal integrity of the catalytic incinerator.
- (3) The permittee shall identify in the annual PER the following information concerning the operations of the air duct from this emissions unit: all time periods during which the velocity pressure in the air duct from this emissions unit was less than 0.100 inches of water as a 3-hour average as determined in d)(2) above.
- (4) Annual PER forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with emission limitation(s) in b)(1) above shall be determined in accordance with the following methods:



a. Emission Limitations:

VOC emissions from this emissions unit shall not exceed 0.74 pound per hour, nor 3.24 tons per year.

Applicable Compliance Method:

Compliance with the hourly allowable VOC emission limitation above shall be demonstrated as follows:

- i. multiply the maximum VOC content (lbs/gallon) of the coatings by the maximum hourly number of gallons of coatings, and then multiply by (1-0.81\*);
- ii. multiply the maximum VOC content (lbs/gallon) of the cleanup materials by the maximum hourly number of gallons of cleanup materials, and then multiply by (1-0.81\*); and
- iii. add i + ii.

The annual VOC emission limitation above was established by multiplying the hourly limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be ensured.

\*The overall control efficiency was assumed to be 81%.

b. Emission Limitation:

The capture and control system shall provide not less than an 81 percent reduction, by weight, in the overall VOC emissions from the coating line and the control efficiency of the catalytic oxidizer shall not be less than 90 percent, by weight, for the VOC emissions vented to it.

Applicable Compliance Method:

Compliance with the overall control efficiency for VOC and the control efficiency for VOC above shall be demonstrated based on the results of emissions testing conducted in accordance with f)(2) below.

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit, during the first 12 calendar months of operation following the startup of the new Post-Repair Spray Line 109 (emissions unit K027), which is being installed and will be controlled by this catalytic oxidizer concurrently with emissions unit K012, in accordance with the following requirements:

- a. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency and the control efficiency limitations for VOC.
- b. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's Guidelines for Determining Capture Efficiency, @



dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.)

- c. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
  - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
  - f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
  - g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
- (3) The permittee shall conduct, or have conducted, catalyst activity testing using the catalyst sample collected during the annual inspection described in this permit. An intent to test notification shall not be required for catalyst activity testing. The procedures for the catalyst activity test shall be conducted in accordance with the manufacturer's recommendations and as required by the appropriate test method.
- g) Miscellaneous Requirements
- (1) Modeling to demonstrate compliance with the Ohio EPA's Air Toxic Policy was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified federally enforceable permit-to-install and operate (FEPTIO) prior to making a modification as defined by OAC rule 3745-31-01.



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permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new FEPTIO.



**2. K027, Post-Repair Spray 109**

**Operations, Property and/or Equipment Description:**

Post-Repair Spray 109

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - a. b)(1)d., d)(8), d)(9), d)(10), d)(11), and e)(4).
  - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - a. None.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	See b)(2) and c)(1) below.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(B)(6).
b.	OAC rule 3745-21-09(B)(6)  (In lieu of complying with the pounds of VOC per gallon of solids limitation contained in OAC rule 3745-21-09(U)(1)(a))	The capture and control system shall provide not less than an 81 percent reduction, by weight, in the overall VOC emissions from the coating line and the control efficiency of the catalytic oxidizer shall not be less than 90 percent, by weight, for the VOC emissions vented to it.
c.	OAC rule 3745-31-05(D)  (Synthetic Minor to Avoid Title V and MACT applicability under 40 CFR Part 63, Subpart KKKK)	See c), d), e), and f) of Section B.1 of the Facility-Wide Terms and Conditions.
d.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(8) through d)(11) below.



(2) Additional Terms and Conditions

- a. Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 4.17 pounds per hour, nor 18.26 tons per year.

[The hourly and annual VOC emission limitations represent the emissions unit's potentials to emit. Therefore, no monitoring, record keeping, and/or reporting requirements are necessary to ensure compliance with these limitations.]

- b. All of the VOC emissions from this emissions unit shall be vented to a catalytic oxidizer that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation.

c) Operational Restrictions

- (1) The catalytic oxidizer shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The conversion efficiency of the catalyst, as determined in an annual catalyst activity test, shall be sufficient to meet the destruction efficiency and control efficiency requirements of this permit at a test temperature that is equal to that temperature at which the inlet to the catalyst bed is set. Solvent loading during the catalyst activity test shall be consistent with the test laboratory's normal testing protocol.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain the air flow in the air duct from this emissions unit at a pressure of not less than 0.100 inches of water\*, as a 3-hour average as demonstrated in d)(2) below.

\*This pressure value was estimated based on the minimum pressure restriction established for emissions unit K016. The minimum air flow pressure for this emissions unit shall be determined during the compliance test required in f)(2) below, and it shall replace the current value, upon written approval from the Akron Regional Air Quality Management District.

- (2) The permittee shall install, calibrate, operate and maintain a monitoring device to continuously measure and record the velocity pressure of the air flow within the air duct from this emissions unit at a location downstream of all individual pick-up point connections and upstream of where this duct connects to the main inlet duct to the catalytic oxidizer. The velocity pressure monitoring and recording device shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations and specifications.

The permittee shall monitor and record the duct velocity pressure for this emissions unit on a once per month basis. The monthly monitoring event shall consist of a continuous 3-hour block of time where instrument readings are taken once every 2 minutes and integrated to create a 3-hour average value. The permittee shall record each monthly 3-hour average duct velocity pressure.

- (3) Whenever the monitored 3-hour average duct velocity deviates from the minimum limit of 0.100 inches of water, the permittee shall promptly investigate the cause of the



deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the duct velocity pressure within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the duct velocity pressure immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The duct velocity pressure range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted duct velocity pressure range/limit based upon information obtained during future emission tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the duct velocity pressure range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (4) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit(s) controlled by the catalytic incinerator is/are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance. The



acceptable average temperature difference across the catalyst bed, for any 3-hour block of time (when the emissions unit(s) is/are in operation), shall not be less than 80 percent of the average temperature difference measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance. Until compliance testing has been conducted, the catalytic incinerator shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manual.

- (5) The permittee shall properly install, operate, and maintain continuous temperature monitors and recorder(s) that measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit(s) is/are in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within  $\pm 1$  percent of the temperature being measured or  $\pm 5$  degrees Fahrenheit, whichever is greater. The temperature monitors and recorder(s) shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals. The acceptable temperature settings shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted and the appropriate range for each parameter is established to demonstrate compliance. Following compliance testing, the permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:
- a. all three-hour periods of operation during which the average temperature of the process vent stream immediately before the catalyst bed is more than fifty degrees Fahrenheit below the average temperature of the process vent stream during the most recent performance test that demonstrated that the source was in compliance, and all three-hour periods of operation during which the average temperature difference across the catalyst bed is less than eighty per cent of the average temperature differences during the most recent performance test that demonstrated that the source was in compliance; and
  - b. a log or record of the operating time for the capture (collection) system, catalytic incinerator, monitoring equipment, and the associated emissions unit(s).

The permittee may use a temperature chart recorder or equivalent recording device as the log that documents the temperature differential across the catalyst bed. These records shall be maintained at the facility for a period of no less than 3 years.

- (6) Whenever the monitored parameters above deviate from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
- a. the date and time the deviation began;
  - b. the magnitude of the deviation at that time;
  - c. the date the investigation was conducted;
  - d. the name(s) of the personnel who conducted the investigation; and



- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range(s)/limit(s) specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the temperature of the exhaust gases immediately before the catalyst and the average temperature difference across the catalyst bed immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The temperature ranges are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature range(s) based upon information obtained during future emission tests that demonstrate compliance with the allowable emission rate(s) of the controlled pollutant(s). In addition, approved revisions to the temperature range(s) will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (7) The permittee shall perform a preventative maintenance inspection of the catalytic incinerator on an annual basis to evaluate the performance of the catalyst bed. Each inspection shall consist of internal and visual inspections in accordance with the manufacturer's recommendations, and shall include a physical inspection of the unit and all of the associated equipment, including but not limited to burners, controls, dampers, valves, and monitoring and recording equipment. Repair and replacement of equipment and the catalyst shall be performed as determined by the inspection. During each annual inspection a sample of the catalyst material shall be collected from the catalyst bed and used to perform a catalyst activity test. The permittee shall maintain a record of the results of each annual inspection and the results of each annual catalyst activity test.

The permittee shall also perform weekly inspections of the external integrity of the catalytic incinerator. Records shall be maintained of the inspections and the date(s) of catalyst replacement, and if only partial, the amount or percent of the total catalyst replaced.



(8) The permit to install application for this emissions units, K027, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The Toxic Air Contaminant Statute, ORC 3704.03(F), was applied to this emissions unit for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled Review of New Sources of Air Toxic Emissions, Option A, as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
  - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists= (ACGIH) Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices; or
  - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists= (ACGIH) Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., X hours per day and Y days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or worst case toxic contaminant(s):

Toxic Contaminant: xylene

TLV (mg/m3): 434

Maximum Hourly Emission Rate (lbs/hr): 1.11



Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 356

MAGLC (ug/m3): 10,333

The permittee, has demonstrated that emissions of xylene, from emissions unit K027, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the AToxic Air Contaminant Statute, ORC 3704.03(F).

- (9) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV 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 toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
  - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the AToxic Air Contaminant Statute 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 a non-restrictive change to a parameter or process operation, where compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final federally enforceable permit-to-install and operate (FEPTIO) prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (10) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F):
- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);



- b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the Toxic Air Contaminant Statute, ORC 3704.03(F);
  - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
  - d. the documentation of the initial evaluation of compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.
- (11) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration
- e) Reporting Requirements
- (1) The permittee shall submit quarterly summaries of the following records:
    - a. all 3-hour blocks of time (when the emissions unit(s) was/were in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature established during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;
    - b. all 3-hour blocks of time (when the emissions unit(s) was/were in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference established during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;
    - c. any records of downtime (date and length of time) for the capture (collection) system, the catalytic incinerator, and/or the monitoring equipment when the emissions unit(s) was/were in operation; and
    - d. a log of the operating time for the capture system, catalytic incinerator, monitoring equipment, and the emissions unit(s).
- These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters.
- (2) The permittee shall identify in the annual permit evaluation report (PER) the following information concerning the operations of the catalytic oxidizer during the 12-month reporting period for this emissions unit: the results of any catalyst activity test(s) along with a summary of the results of the annual inspection of the internal integrity of the catalytic oxidizer.



- (3) The permittee shall identify in the annual PER the following information concerning the operations of the air duct from this emissions unit: all time periods during which the velocity pressure in the air duct from this emissions unit was less than 0.100 inches of water as a 3-hour average as determined in d)(2) above.
- (4) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual PER. If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect
- (5) Annual PER forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with emission limitation(s) in b)(1) above shall be determined in accordance with the following methods:

a. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 4.17 pounds per hour, nor 18.26 tons per year.

Applicable Compliance Method:

Compliance with the hourly allowable VOC emission limitation above shall be demonstrated as follows:

- i. multiply the maximum VOC content (lbs/gallon) of the coatings by the maximum hourly number of gallons of coatings, and then multiply by (1-0.81\*);
- ii. multiply the maximum VOC content (lbs/gallon) of the cleanup materials by the maximum hourly number of gallons of cleanup materials, and then multiply by (1-0.81\*); and
- iii. add i + ii.

The annual VOC emission limitation above was established by multiplying the hourly limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be ensured.

\*The overall control efficiency was assumed to be 81%.



b. Emission Limitation:

The capture and control system shall provide not less than an 81 percent reduction, by weight, in the overall VOC emissions from the coating line and the control efficiency of the catalytic oxidizer shall not be less than 90 percent, by weight, for the VOC emissions vented to it.

Applicable Compliance Method:

Compliance with the overall control efficiency for VOC and the control efficiency for VOC above shall be demonstrated based on the results of emissions testing conducted in accordance with f)(2) below.

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit, during the first 12 calendar months of operation following the startup of this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency and the control efficiency limitations for VOC.
  - b. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for VOC, Method 25 or 25A (whichever is appropriate) of 40 CFR Part 60, Appendix A. The test method(s) which must be employed to demonstrate compliance with the capture efficiency and control efficiency limitations for VOC are specified below. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.
  - c. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
  - d. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's Guidelines for Determining Capture Efficiency, dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
  - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval



prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

- f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

- (3) The permittee shall conduct, or have conducted, catalyst activity testing using the catalyst sample collected during the annual inspection described in this permit. An intent to test notification shall not be required for catalyst activity testing. The procedures for the catalyst activity test shall be conducted in accordance with the manufacturer's recommendations and as required by the appropriate test method.

g) Miscellaneous Requirements

- (1) None.



**3. Emissions Unit Group - Group 1: K001, K004, K006, K008,**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
K001	Blanked End Liner 101
K004	Blanked End Liner 102
K006	Blanked End Liner 103
K008	Blanked End Liner 104

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. g)(1).

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
a.	OAC rule 3745-31-05(A)(3)	See b)(2)a. below.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(D)(2)(e).
b.	OAC rule 3745-21-09(D)(2)(e)	The permittee shall not use coatings that are in excess of 3.7 pounds of VOC per gallon of coating, excluding water and exempt solvents.
c.	OAC rule 3745-31-05(D)  (Synthetic Minor to Avoid Title V and MACT applicability under 40 CFR Part 63, Subpart KKKK)	See c), d), e), and f) of Section B.1 of the Facility-Wide Terms and Conditions.



(2) Additional Terms and Conditions

- a. For emissions units K001, K004, K006 and K008: Volatile organic compound (VOC) emissions from each emissions unit shall not exceed 3.64 pounds per hour, nor 15.94 tons per year.

[The hourly and annual VOC emission limitations represent the emissions unit's potentials to emit. Therefore, no monitoring, record keeping, and/or reporting requirements are necessary to ensure compliance with these limitations.]

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee, having chosen to demonstrate compliance through the use of compliant coatings, shall collect and record the following information each month for the coating line and shall maintain this information at the facility for a period of three years:

- a. the name and identification number of each coating, as applied; and
- b. the mass of VOC per volume (pounds/gallon) of each coating, excluding water and exempt solvents, as applied, calculated as follows for  $C_{VOC,2}$ :

$$C_{VOC,2} = (D_C)(W_{VOC}) / V_S + V_{VOC}$$

where:

$D_C$  = the density of coating, in pounds of coating per gallon of coating.

$$W_{VOC} = W_{VM} - W_W - W_{ES}$$

$V_S$  = volume fraction of solids in coating, in gallons of solids per gallon of coating.

$$V_{VOC} = V_{VM} - V_W - V_{ES}$$

$W_{VM}$  = weight fraction of volatile matter in coating, in pound of volatile matter per pound of coating.

$W_W$  = weight fraction of water in coating, in pound of water per pound of coating.

$W_{ES}$  = weight fraction of exempt solvent in coating, in pound of exempt solvent per pound of coating.

$V_{VM}$  = volume fraction of volatile matter in coating, in gallon of volatile matter per gallon of coating.

$V_W$  = volume fraction of water in coating, in gallon of water per gallon of coating.

$V_{ES}$  = volume fraction of exempt solvent in coating, in gallon of exempt solvent per gallon of coating.



This information does not have to be kept on a line-by-line basis, unless one or more of the lines or emissions units is subject to specific @gallons/year@ and/or @tons/year@ limitation in a Permit-to-Install and Operate, where the above-mentioned information shall be maintained separately for each such line. Also, if the permittee mixes complying coatings at a line, it is not necessary to record the VOC content of the resulting mixture

e) Reporting Requirements

- (1) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying coatings. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.
- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with emission limitation(s) in b)(1) above shall be determined in accordance with the following methods:

a. Emission Limitations:

For emissions units K001, K004, K006 and K008: VOC emissions from each emissions unit shall not exceed 3.64 pounds per hour, nor 15.94 tons per year.

Applicable Compliance Method:

Compliance with the hourly allowable VOC emission limitations above shall be demonstrated as follows (for each emissions unit):

- i. multiply the maximum VOC content (lbs/gallon) of the coatings by the maximum hourly number of gallons of coatings;
- ii. multiply the maximum VOC content (lbs/gallon) of the cleanup materials by the maximum hourly number of gallons of cleanup materials; and
- iii. add i + ii.

The annual VOC emission limitations above were established by multiplying the hourly limitations by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitations is maintained, compliance with the annual limitations shall be ensured.



b. Emission Limitation:

The permittee shall not use coatings that are in excess of 3.7 pounds of VOC per gallon of coating, excluding water and exempt solvents.

Applicable Compliance Method:

Compliance with the VOC content limitation above shall be demonstrated based on the record keeping requirements established in d)(1) above.

- (2) The VOC content of each coating shall be determined using USEPA Methods 24 and 24A. If pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

g) Miscellaneous Requirements

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



**4. Emissions Unit Group - Group 2: K018, K023,**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
K018	Blanked End Liner 108
K023	Blanked End Liner 108C

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - a. g)(1).
  - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - a. None.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	See b)(2) and c)(1) below.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(B)(6).
b.	OAC rule 3745-21-09(B)(6)  (In lieu of complying with the pounds of VOC per gallon of solids limitation contained in OAC rule 3745-21-09(D)(2)(e))	The capture and control system shall provide not less than an 81 percent reduction, by weight, in the overall VOC emissions from the coating line and the control efficiency of the regenerative thermal oxidizer (RTO) shall not be less than 90 percent, by weight, for the VOC emissions vented to it.
c.	OAC rule 3745-31-05(D)  (Synthetic Minor to Avoid Title V and MACT applicability under 40 CFR Part 63, Subpart KKKK)	See c), d), e), and f) of Section B.1 of the Facility-Wide Terms and Conditions.



(2) Additional Terms and Conditions

- a. For emissions unit K018: VOC emissions from this emissions unit shall not exceed 0.60 pound per hour, nor 2.63 tons per year.

[The hourly and annual VOC emission limitations represent the emissions unit's potentials to emit. Therefore, no monitoring, record keeping, and/or reporting requirements are necessary to ensure compliance with these limitations.]

- b. For emissions unit K023: VOC emissions from this emissions unit shall not exceed 1.08 pounds per hour, nor 4.73 tons per year.

[The hourly and annual VOC emission limitations represent the emissions unit's potentials to emit. Therefore, no monitoring, record keeping, and/or reporting requirements are necessary to ensure compliance with these limitations.]

- c. All of the VOC emissions from each emissions unit shall be vented to a regenerative thermal oxidizer (RTO) that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation (whenever solvent-based coatings are being employed).

c) Operational Restrictions

- (1) For emissions units K018 and K023: The permittee shall not operate emissions unit K018 concurrently with emissions unit K023.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain the air flow in the air duct from each emissions unit at a pressure of not less than 0.100 inches of water, as a 3-hour average as demonstrated in d)(2) below.

- (2) The permittee shall install, calibrate, operate and maintain a monitoring device to continuously measure and record the velocity pressure of the air flow within the air duct from each emissions unit at a location downstream of all individual pick-up point connections and upstream of where this duct connects to the main inlet duct to the RTO. The velocity pressure monitoring and recording device shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations and specifications.

The permittee shall monitor and record the duct velocity pressure for each emissions unit on a once per month basis. The monthly monitoring event shall consist of a continuous 3-hour block of time where instrument readings are taken once every 2 minutes and integrated to create a 3-hour average value. The permittee shall record each monthly 3-hour average duct velocity pressure.

- (3) Whenever the monitored 3-hour average duct velocity deviates from the minimum limit of 0.100 inches of water, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;



- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the duct velocity pressure within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the duct velocity pressure immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The duct velocity pressure range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted duct velocity pressure range/limit based upon information obtained during future emission tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the duct velocity pressure range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (4) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average combustion temperature within the RTO, for any 3-hour block of time when the emissions unit(s) controlled by the RTO is/are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance. Until compliance testing has been conducted, the RTO shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manual.
- (5) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the



RTO when the emissions unit(s) is/are in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within  $\pm 1$  percent of the temperature being measured or  $\pm 5$  degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The acceptable temperature setting shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate temperature range is established to demonstrate compliance. Following compliance testing, the permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:

- a. all 3-hour blocks of time, when the emissions unit(s) controlled by the RTO was/were in operation, during which the average combustion temperature within the RTO was more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance; and
- b. a log or record of the operating time for the capture (collection) system, RTO, monitoring equipment, and the associated emissions unit(s).

These records shall be maintained at the facility for a period of three years.

- (6) Whenever the monitored average combustion temperature within the RTO deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;



- d. the total period of time (in minutes) during which there was a deviation;
- e. the temperature readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature range/limit based upon information obtained during future emission tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

e) Reporting Requirements

- (1) The permittee shall submit quarterly summaries of the following records:
  - a. all 3-hour blocks of time (when the emissions unit(s) was/were in operation) during which the average combustion temperature within the RTO was more than 50 degrees Fahrenheit below the average temperature maintained during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;
  - b. any records of downtime (date and length of time) for the capture (collection) system, the RTO, and/or the monitoring equipment when the emissions unit(s) was/were in operation; and
  - c. a log of the operating time for the capture system, RTO, monitoring equipment, and the emissions unit(s).

These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters.

- (2) The permittee shall identify in the annual permit evaluation report (PER) the following information concerning the operations of the air duct from each emissions unit: all time periods during which the velocity pressure in the air duct from each emissions unit was less than 0.100 inches of water as a 3-hour average as determined in d)(2) above.
- (3) Annual PER forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.



f) Testing Requirements

(1) Compliance with emission limitation(s) in b)(1) above shall be determined in accordance with the following methods:

a. Emission Limitations:

For emissions unit K018: VOC emissions from this emissions unit shall not exceed 0.60 pound per hour, nor 2.63 tons per year.

For emissions unit K023: VOC emissions from this emissions unit shall not exceed 1.08 pounds per hour, nor 4.73 tons per year.

Applicable Compliance Method:

Compliance with the hourly allowable VOC emission limitations above shall be demonstrated as follows (for each emissions unit):

- i. multiply the maximum VOC content (lbs/gallon) of the coatings by the maximum hourly number of gallons of coatings, and then multiply by (1-0.81\*);
- ii. multiply the maximum VOC content (lbs/gallon) of the cleanup materials by the maximum hourly number of gallons of cleanup materials, and then multiply by (1-0.81\*); and
- iii. add i + ii.

The annual VOC emission limitation above was established by multiplying the hourly limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be ensured.

\*The overall control efficiency was assumed to be 81%.

b. Emission Limitations:

The capture and control system shall provide not less than an 81 percent reduction, by weight, in the overall VOC emissions from the coating line and the control efficiency of the RTO shall not be less than 90 percent, by weight, for the VOC emissions vented to it.

Applicable Compliance Method:

Compliance with the overall control efficiency for VOC and the control efficiency for VOC above shall be demonstrated based on the results of emissions testing conducted in accordance with f)(2) below.

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit, during the first 12 calendar months of operation following the issuance of Permit-to-



Install 16-02521 (issued final on 11/6/2008), in accordance with the following requirements:

- a. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency and the control efficiency limitations for VOC.
- b. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's Guidelines for Determining Capture Efficiency, dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.)
- c. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**

**Permit Number:** P0105301

**Facility ID:** 1677000223

**Effective Date:** 8/25/2009

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



**5. Emissions Unit Group - Group 3: K020, K021, K022,**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
K020	Post-Repair Spray 105
K021	Post-Repair Spray 106
K022	Post-Repair Spray 107

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
- (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
- a. b)(1)d., d)(7), d)(8), d)(9), d)(10), and e)(3).
- (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
- a. None.
- b) Applicable Emissions Limitations and/or Control Requirements
- (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
a.	OAC rule 3745-31-05(A)(3)	See b)(2) below.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(B)(6).
b.	OAC rule 3745-21-09(B)(6)  (In lieu of complying with the pounds of VOC per gallon of solids limitation contained in OAC rule 3745-21-09(U)(1)(a))	The capture and control system shall provide not less than an 81 percent reduction, by weight, in the overall VOC emissions from the coating line and the control efficiency of the regenerative thermal oxidizer (RTO) shall not be less than 90 percent, by weight, for the VOC emissions vented to it.
c.	OAC rule 3745-31-05(D)  (Synthetic Minor to Avoid Title V and MACT applicability under 40 CFR Part 63, Subpart KKKK)	See c), d), e), and f) of Section B.1 of the Facility-Wide Terms and Conditions.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(7) through d)(10) below.

(2) Additional Terms and Conditions

- a. For emissions unit K020: Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 3.67 pounds per hour, nor 16.07 tons per year.

[The hourly and annual VOC emission limitations represent the emissions unit's potentials to emit. Therefore, no monitoring, record keeping, and/or reporting requirements are necessary to ensure compliance with these limitations.]

- b. For emissions unit K021: VOC emissions from this emissions unit shall not exceed 0.97 pound per hour, nor 4.25 tons per year.

[The hourly and annual VOC emission limitations represent the emissions unit's potentials to emit. Therefore, no monitoring, record keeping, and/or reporting requirements are necessary to ensure compliance with these limitations.]

- c. For emissions unit K022: VOC emissions from this emissions unit shall not exceed 1.19 pounds per hour, nor 5.21 tons per year.

[The hourly and annual VOC emission limitations represent the emissions unit's potentials to emit. Therefore, no monitoring, record keeping, and/or reporting requirements are necessary to ensure compliance with these limitations.]

- d. All of the VOC emissions from each emissions unit shall be vented to a regenerative thermal oxidizer (RTO) that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation (whenever solvent-based coatings are being employed).

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain the air flow in the air duct from each emissions unit at a pressure of not less than 0.250 inches of water, as a 3-hour average as demonstrated in d)(2) below.

- (2) The permittee shall install, calibrate, operate and maintain a monitoring device to continuously measure and record the velocity pressure of the air flow within the air duct from each emissions unit at a location downstream of all individual pick-up point connections and upstream of where this duct connects to the main inlet duct to the RTO. The velocity pressure monitoring and recording device shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations and specifications.



The permittee shall monitor and record the duct velocity pressure for each emissions unit on a once per month basis. The monthly monitoring event shall consist of a continuous 3-hour block of time where instrument readings are taken once every 2 minutes and integrated to create a 3-hour average value. The permittee shall record each monthly 3-hour average duct velocity pressure.

- (3) Whenever the monitored 3-hour average duct velocity deviates from the minimum limit of 0.250 inches of water, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
- a. the date and time the deviation began;
  - b. the magnitude of the deviation at that time;
  - c. the date the investigation was conducted;
  - d. the name(s) of the personnel who conducted the investigation; and
  - e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the duct velocity pressure within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the duct velocity pressure immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The duct velocity pressure range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted duct velocity pressure range/limit based upon information obtained during future emission tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the duct velocity pressure range/limit will not constitute a relaxation of the monitoring requirements of this



permit and may be incorporated into this permit by means of an administrative modification.

- (4) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average combustion temperature within the RTO, for any 3-hour block of time when the emissions unit(s) controlled by the RTO is/are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance. Until compliance testing has been conducted, the RTO shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manual.
- (5) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the RTO when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within  $\pm 1$  percent of the temperature being measured or  $\pm 5$  degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals. The acceptable temperature setting shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted and the appropriate temperature range is established to demonstrate compliance. Following compliance testing, the permittee shall collect and record the following information each day the emissions unit is in operation:
  - a. all 3-hour blocks of time, when the emissions unit(s) controlled by the RTO was/were in operation, during which the average combustion temperature within the RTO was more than 50 degrees Fahrenheit below the average temperature measured during the most recent emissions test that demonstrated the emissions unit(s) was/were in compliance; and
  - b. a log or record of the operating time for the capture (collection) system, the RTO, the monitoring equipment, and the associated emissions unit(s).

These records shall be maintained at the facility for a period of three years.

- (6) Whenever the monitored average combustion temperature within the RTO deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
  - a. the date and time the deviation began;
  - b. the magnitude of the deviation at that time;
  - c. the date the investigation was conducted;
  - d. the name(s) of the personnel who conducted the investigation; and
  - e. the findings and recommendations.



In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the temperature readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature range/limit based upon information obtained during future emission tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (7) The permit to install application for these emissions units, K020, K021, and K022, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The  $\Delta$ Toxic Air Contaminant Statute $\text{\textcircled{R}}$ , ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled  $\Delta$ Review of New Sources of Air Toxic Emissions, Option A $\text{\textcircled{R}}$ , as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):



- i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists= (ACGIH) AThreshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices@; or
  - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists= (ACGIH) AThreshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices@; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
  - c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., AX@ hours per day and AY@ days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or Aworst case@ toxic contaminant(s):

Toxic Contaminant: xylene\*

TLV (mg/m3): 434

Maximum Hourly Emission Rate (lbs/hr): 1.11

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 356

MAGLC (ug/m3): 10,333

Toxic Contaminant: Methyl Isobutyl Ketone\*\*

TLV (mg/m3): 205

Maximum Hourly Emission Rate (lbs/hr): 2.02

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 964

MAGLC (ug/m3): 4881

\*Evaluated for emissions unit K020.

\*\*Evaluated for emissions units K021 and K022.

The permittee, has demonstrated that emissions of xylene, from emissions unit K020, and emissions of Methyl Isobutyl Ketone, from emissions units K021 and K020, are calculated to be less than eighty per cent of the maximum acceptable ground level



concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the AToxic Air Contaminant Statute, ORC 3704.03(F).

- (8) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV 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 toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
  - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the AToxic Air Contaminant Statute 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 a non-restrictive change to a parameter or process operation, where compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final federally enforceable permit-to-install and operate (FEPTIO) prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (9) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F):
- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
  - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the AToxic Air Contaminant Statute, ORC 3704.03(F);
  - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F),



initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

- d. the documentation of the initial evaluation of compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

- (10) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

- (1) The permittee shall submit quarterly summaries of the following records:
  - a. all 3-hour blocks of time (when the emissions unit(s) was/were in operation) during which the average combustion temperature within the RTO was more than 50 degrees Fahrenheit below the average temperature maintained during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;
  - b. any records of downtime (date and length of time) for the capture (collection) system, the RTO, and/or the monitoring equipment when the emissions unit(s) was/were in operation; and
  - c. a log of the operating time for the capture system, RTO, monitoring equipment, and the emissions unit(s).

These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters.

- (2) The permittee shall identify in the annual permit evaluation report (PER) the following information concerning the operations of the air duct from each emissions unit: all time periods during which the velocity pressure in the air duct from each emissions unit was less than 0.250 inches of water as a 3-hour average as determined in d)(2) above.
- (3) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual PER. If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.
- (4) Annual PER forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.



f) Testing Requirements

(1) Compliance with the emission limitations shall be determined in accordance with the following methods:

a. Emission Limitations:

For emissions unit K020: VOC emissions from this emissions unit shall not exceed 3.67 pound per hour, nor 16.07 tons per year.

For emissions unit K021: VOC emissions from this emissions unit shall not exceed 0.97 pound per hour, nor 4.25 tons per year.

For emissions unit K022: VOC emissions from this emissions unit shall not exceed 1.19 pounds per hour, nor 5.21 tons per year.

Applicable Compliance Method:

Compliance with the hourly allowable VOC emission limitation above shall be demonstrated as follows (for each emissions unit):

- i. multiply the maximum VOC content (lbs/gallon) of the coatings by the maximum hourly number of gallons of coatings, and then multiply by (1-0.81\*);
- ii. multiply the maximum VOC content (lbs/gallon) of the cleanup materials by the maximum hourly number of gallons of cleanup materials, and then multiply by (1-0.81\*); and
- iii. add i + ii.

The annual VOC emission limitation above was established by multiplying the hourly limitation by 8760, and then dividing by 2000. Therefore, as long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be ensured.

\*The overall control efficiency was assumed to be 81%.

b. Emission Limitations:

The capture and control system shall provide not less than an 81 percent reduction, by weight, in the overall VOC emissions from the coating line and the control efficiency of the RTO shall not be less than 90 percent, by weight, for the VOC emissions vented to it.

Applicable Compliance Method:

Compliance with the emission limitations for VOC above shall be demonstrated based on the results of emissions testing conducted in accordance with f)(2) below.

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit, during the first 12 calendar months of operation following the issuance of Permit-to-



Install 16-02521 (issued final on 11/6/2008), in accordance with the following requirements:

- a. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency and the control efficiency limitations for VOC.
- b. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's Guidelines for Determining Capture Efficiency, dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.)
- c. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

- (1) None.