



12/4/2014

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 1677000223  
Permit Number: P0115690  
Permit Type: Renewal  
County: Summit

Certified Mail

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MODELING SUBMITTED
Yes	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) 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. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

**How to appeal this permit**

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
77 South High Street, 17th Floor  
Columbus, OH 43215

## **How to save money, reduce pollution and reduce energy consumption**

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: [www.ohioairquality.org/clean\\_air](http://www.ohioairquality.org/clean_air)

## **How to give us feedback on your permitting experience**

Please complete a survey at [www.epa.ohio.gov/survey.aspx](http://www.epa.ohio.gov/survey.aspx) and give us feedback on your permitting experience. We value your opinion.

## **How to get an electronic copy of your permit**

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Akron Regional Air Quality Management District at (330)375-2480 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Erica R. Engel-Ishida, Manager  
Permit Issuance and Data Management Section, DAPC

Cc: ARAQMD



**FINAL**

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

Facility ID:	1677000223
Permit Number:	P0115690
Permit Type:	Renewal
Issued:	12/4/2014
Effective:	12/4/2014
Expiration:	12/4/2019





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

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## Authorization

Facility ID: 1677000223  
Application Number(s): A0049058  
Permit Number: P0115690  
Permit Description: Renewal FEPTIO for ten blanked end liner coating lines (K001, K004, K006, K008, K010, K012, K016, K018, K023, and K025), nine conversion presses (K005, K007, K009, K011, K013, K015, K017, K019, and K026), four post-repair spray lines (K020, K021, K022 and K027), and one electrodeposition coating line (K024) for the production of pull tab lids for cans.  
Permit Type: Renewal  
Permit Fee: \$0.00  
Issue Date: 12/4/2014  
Effective Date: 12/4/2014  
Expiration Date: 12/4/2019  
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 Environmental Protection Agency (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

  
Craig W. Butler  
Director



## Authorization (continued)

Permit Number: P0115690  
 Permit Description: Renewal FEPTIO for ten blanked end liner coating lines (K001, K004, K006, K008, K010, K012, K016, K018, K023, and K025), nine conversion presses (K005, K007, K009, K011, K013, K015, K017, K019, and K026), four post-repair spray lines (K020, K021, K022 and K027), and one electrodeposition coating line (K024) for the production of pull tab lids for cans.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

- |  |  |
|--|--|
| <b>Emissions Unit ID:</b><br>Company Equipment ID:<br>Superseded Permit Number:<br>General Permit Category and Type: | <b>K005</b><br>Conversion Press 102<br>P0107390<br>Not Applicable  |
| <b>Emissions Unit ID:</b><br>Company Equipment ID:<br>Superseded Permit Number:<br>General Permit Category and Type: | <b>K012</b><br>Blanked End Liner 107<br>P0107390<br>Not Applicable |
| <b>Emissions Unit ID:</b><br>Company Equipment ID:<br>Superseded Permit Number:<br>General Permit Category and Type: | <b>K020</b><br>Post-Repair Spray 105<br>P0107390<br>Not Applicable |
| <b>Emissions Unit ID:</b><br>Company Equipment ID:<br>Superseded Permit Number:<br>General Permit Category and Type: | <b>K024</b><br>ECoater 104<br>P0107390<br>Not Applicable           |
| <b>Emissions Unit ID:</b><br>Company Equipment ID:<br>Superseded Permit Number:<br>General Permit Category and Type: | <b>K027</b><br>Post-Repair Spray 109<br>P0107390<br>Not Applicable |

**Group Name: Group 1**

<b>Emissions Unit ID:</b>	<b>K001</b>
Company Equipment ID:	Blanked End Liner 101
Superseded Permit Number:	P0107390
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:	P0107390
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:	P0107390
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:	P0107390
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K010</b>



Company Equipment ID:	Blanked End Liner 105
Superseded Permit Number:	P0107390
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K025</b>
Company Equipment ID:	End Liner 109
Superseded Permit Number:	P0107390
General Permit Category andType:	Not Applicable

**Group Name: Group 2**

<b>Emissions Unit ID:</b>	<b>K007</b>
Company Equipment ID:	Conversion Press 103
Superseded Permit Number:	P0107390
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K009</b>
Company Equipment ID:	Conversion Press 104
Superseded Permit Number:	P0107390
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K011</b>
Company Equipment ID:	Conversion Press 105
Superseded Permit Number:	P0107390
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K013</b>
Company Equipment ID:	Conversion Press 107
Superseded Permit Number:	P0107390
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K015</b>
Company Equipment ID:	Conversion Press 101
Superseded Permit Number:	P0107390
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K017</b>
Company Equipment ID:	Conversion Press 106
Superseded Permit Number:	P0107390
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K019</b>
Company Equipment ID:	Conversion Press 108
Superseded Permit Number:	P0107390
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K026</b>
Company Equipment ID:	Conversion Press 109
Superseded Permit Number:	P0107390
General Permit Category andType:	Not Applicable

**Group Name: Group 3**

<b>Emissions Unit ID:</b>	<b>K016</b>
Company Equipment ID:	Blanked End Liner 106
Superseded Permit Number:	P0107390
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K018</b>
Company Equipment ID:	Blanked End Liner 108
Superseded Permit Number:	P0107390
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K023</b>
Company Equipment ID:	Blanked End Liner 108C
Superseded Permit Number:	P0107390
General Permit Category andType:	Not Applicable



**Final Permit-to-Install and Operate**  
SONOCO PHOENIX INC - Brookline Plant  
**Permit Number:** P0115690  
**Facility ID:** 1677000223  
**Effective Date:** 12/4/2014

**Group Name: Group 4**

<b>Emissions Unit ID:</b>	<b>K021</b>
Company Equipment ID:	Post-Repair Spray 106
Superseded Permit Number:	P0107361
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K022</b>
Company Equipment ID:	Post-Repair Spray 107
Superseded Permit Number:	P0107361
General Permit Category andType:	Not Applicable



**Final Permit-to-Install and Operate**  
SONOCO PHOENIX INC - Brookline Plant  
**Permit Number:** P0115690  
**Facility ID:** 1677000223  
**Effective Date:** 12/4/2014

## **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 of this permit 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 [DO/LAA] 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.

**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.



**Final Permit-to-Install and Operate**  
SONOCO PHOENIX INC - Brookline Plant  
**Permit Number:** P0115690  
**Facility ID:** 1677000223  
**Effective Date:** 12/4/2014

## **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) 2, 3, 4, and 5.
2. The emissions of any individual hazardous air pollutant (HAP), total combined HAPs, and volatile organic compounds (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 98.15 tons per year, respectively, based upon the rolling, 12-month summations of the monthly emission rates.
3. In order to determine compliance with the facility-wide emission limitations in 2. 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:
  - a) 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:
    - (1) the name and identification number/code of each coating, thinner, additive, cleanup material, and any other material containing any HAP and/or VOC;
    - (2) the VOC content of each VOC containing material applied (and identified in 3.a)(1) above) in pound(s)of VOC per gallon of each VOC containing material applied or weight fraction of VOC contained in each material applied;
    - (3) the name/identification of each individual HAP contained in each material applied (and identified in 3.a)(1) 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;
    - (4) the number of gallons or pounds of each coating, thinner, additive, cleanup material, and other material applied during the month;
    - (5) the VOC emissions from all the materials employed, in ton(s), i.e., the summation of the products of 3.a)(2) times 3.a)(4) for all materials applied during the month, divided by 2,000 pounds per ton;



- (6) 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 3.a)(3) times 3.a)(4) for all the materials applied during the month, divided by 2,000 pounds per ton; and
- (7) 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 3.a)(6) 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.

b) 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:

- (1) the name and identification number/code of each coating, thinner, additive, cleanup material, and any other material containing any HAP and/or VOC;
- (2) the VOC content of each VOC containing material applied (and identified in 3.b)(1) above) in pound(s)of VOC per gallon of each VOC containing material applied or weight fraction of VOC contained in each material applied;
- (3) the name/identification of each individual HAP contained in each material applied (and identified in 3.b)(1) 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;
- (4) the number of gallons or pounds of each coating, thinner, additive, cleanup material, and other material applied during the month;
- (5) the uncontrolled VOC emissions from all the materials employed, in ton(s) for each emissions unit, i.e., the summation of the products of 3.b)(2) times 3.b)(4) for all materials applied during the month, divided by 2,000 pounds per ton;
- (6) 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 3.b)(3) times 3.b)(4) for all the materials applied during the month, divided by 2,000 pounds;
- (7) 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 3.b)(6) above;
- (8) 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 3.b)(5) 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;
- (9) 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 3.b)(6) 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;

- (10) 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 3.b)(7) 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;
- (11) 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 3.b)(8) above;
- (12) 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 3.b)(9) above; and
- (13) 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 3.b)(10) 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.

- c) 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):
  - (1) the VOC emissions from all the materials employed, in ton(s), i.e., [3.a)(5) + 3.b)(11)];
  - (2) for each individual HAP, the total emissions from all the materials employed, in ton(s), for each individual HAP, i.e., [3.a)(6) + 3.b)(12)] for each individual HAP;
  - (3) the total combined HAPs emissions from all materials employed, in ton(s), i.e., [3.a)(7) + 3.b)(13)];
  - (4) the VOC emissions during the rolling 12-month period, i.e., the summation of all VOC emissions, as recorded in 3.c)(1) above, for the present month plus the previous 11 months of operation, in ton(s);
  - (5) 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 3.c)(2) above, for the present month plus the previous 11 months of operation, in ton(s); and
  - (6) the total combined HAP emissions during the rolling 12-month period, i.e., the summation of all HAP emissions, as recorded in 3.c)(3) above, for the present month plus the previous 11 months of operation, in ton(s).



4. The permittee shall submit quarterly deviation (excursion) reports that identify:
- a) 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:
    - (1) all exceedances of the rolling, 12-month VOC emission limitation;
    - (2) all exceedances of the rolling, 12-month individual HAP emission limitation for each HAP; and
    - (3) all exceedances of the rolling, 12-month total combined HAPs emission limitation.
  - b) the probable cause of each deviation (excursion);
  - c) any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
  - d) 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).

5. Compliance with the emission limitations in 2. above shall be determined in accordance with the following method(s):

a) Emission Limitations:

The emissions of any individual 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 98.15 tons per year, respectively, based upon the rolling, 12-month summations of the monthly emission rates.

Applicable Compliance Method:

Compliance with the annual emission limitations above shall be demonstrated based upon the record keeping requirements established in 3.a), 3.b), and 3.c) above.

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.



6. All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.



**Final Permit-to-Install and Operate**  
SONOCO PHOENIX INC - Brookline Plant  
**Permit Number:** P0115690  
**Facility ID:** 1677000223  
**Effective Date:** 12/4/2014

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



**1. K005, Conversion Press 102**

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

Conversion Press 102

- 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. b)(1)b.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operation(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 are identified below. 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)a. below.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(U)(2)(e).
b.	OAC rule 3745-31-05(D)  (Synthetic Minor to Avoid Title V and MACT applicability under 40 CFR Part 63, Subpart KKKK)	See 2, 3, 4, and 5 of Section B - Facility-Wide Terms and Conditions.
c.	OAC rule 3745-21-09(U)(2)(e)	For the rust inhibitor coating process, see c)(1) below.
d.	OAC rule 3745-21-07(M)(3)(c)(ii)	The tab lube application process shall not be subject to the requirements of (M)(3)(a) and (M)(3)(b) of OAC rule 3745-21-07 because the potential to emit for organic compound (OC) emissions is less than 40 pounds per day.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		*All OC emissions emitted from this emissions unit are volatile organic compound (VOC) emissions.

(2) Additional Terms and Conditions

- a. Volatile organic compound emissions (VOC) emissions shall not exceed 0.58 pounds per hour and 2.54 tons per year from the tab lube application process and 0.40 pound per hour and 1.75 tons per year from the rust inhibitor coating process.
  - b. The hourly and annual VOC emission limitations above represent the emissions unit's potentials to emit. Therefore, no monitoring, record keeping, and/or reporting requirements are necessary to ensure compliance with these emission limitations.
- c) Operational Restrictions
- (1) The permittee shall not employ more than three gallons of coating per day for the rust inhibitor coating process.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall collect and record the following information each day for the rust inhibitor coating process:
    - a. the name and identification number of each coating employed;
    - b. the volume, in gallons, of each coating employed; and
    - c. the total volume, in gallons, of all of the coatings employed.
- e) Reporting Requirements
- (1) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing that the coating line employs more than the applicable maximum daily coating usage limit. 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 45 days after the exceedance occurs.
  - (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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 limitation(s) in b)(1) and b)(2) above and the operational restriction in c)(1) above shall be determined in accordance with the following methods

a. Emission Limitations:

VOC emissions shall not exceed 0.58 pound per hour and 2.54 tons per year from the tab lube application process.

Applicable Compliance Method:

Compliance with the hourly allowable VOC emission limitation above shall be demonstrated by multiplying the maximum VOC content in pounds of VOC per gallon of tab lube by the maximum hourly usage rate in gallons.

If required, the permittee shall demonstrate compliance with the hourly VOC emission limitation in accordance with Methods 1-4 and 18, 25, or 25a, as appropriate, of 40 CFR Part 60, Appendix A.

The annual allowable VOC emission limitation above was established by multiplying the hourly allowable VOC emission limitation by 8,760, and then dividing by 2,000. Therefore, as long as compliance with the hourly emission limitation is maintained, compliance with the annual emission limitation shall be demonstrated.

b. Emission Limitations:

VOC emissions shall not exceed 0.40 pound per hour and 1.75 tons per year from the rust inhibitor coating process.

Applicable Compliance Method:

Compliance with the hourly allowable VOC emission limitation above shall be demonstrated by multiplying the maximum VOC content in pounds of VOC per gallon of coating by the maximum hourly usage rate in gallons.

If required, the permittee shall demonstrate compliance with the hourly VOC emission limitation in accordance with Methods 1-4 and 18, 25, or 25a, as appropriate, of 40 CFR Part 60, Appendix A.

The annual allowable VOC emission limitation above was established by multiplying the hourly limitation by 8,760, and then dividing by 2,000. Therefore, as long as compliance with the hourly emission limitation is maintained, compliance with the annual emission limitation shall be demonstrated.

c. Operational Restriction:

The permittee shall not employ more than three gallons of coating per day for the rust inhibitor coating process.



Applicable Compliance Method:

Compliance with the daily gallon usage restriction above shall be demonstrated based on the record keeping requirements established in d)(1) above.

g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee 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 toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new FEPTIO.



**2. 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. b)(1)c.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operation(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 are identified below. 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)(1)(e) or (D)(2)(e))	The capture and control system shall provide not less than an 81 percent reduction, by weight, in the overall volatile organic compound (VOC) emissions from the coating line and the control efficiency of the regenerative thermal oxidizer (RTO) and 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 2, 3, 4, and 5 of Section B - Facility-Wide Terms and Conditions.



(2) Additional Terms and Conditions

- a. VOC emissions from this emissions unit shall not exceed 0.74 pound per hour and 3.24 tons per year.
- b. 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 emission limitations.
- c. All of the VOC emissions from this emissions unit shall be vented to either an RTO or 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) 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 this emissions unit is in operation and venting VOC emissions to the RTO, shall not be less than 1480 degrees.
- (2) 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 and venting VOC emissions to the RTO, 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 permittee shall collect and record the following information each day the emissions unit is in operation and venting VOC emissions to the RTO:
  - a. all 3-hour blocks of time, when the emissions unit was in operation and venting VOC emissions to the RTO, during which the average combustion temperature within the RTO was less than 1480 degrees Fahrenheit; 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.

- (3) 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:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the temperature readings immediately after the corrective action was implemented; and
- k. 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.

- (4) 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.



- (5) 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 is in operation and venting VOC emissions to the catalytic oxidizer, shall not be less than 700 degrees Fahrenheit. The acceptable average temperature difference across the catalyst bed\*, for any 3-hour block of time (when the emissions unit is in operation and venting VOC emissions to the catalytic oxidizer), shall not be less than 25.6 degrees Fahrenheit.

\*The average temperature difference across the catalyst bed shall be determined by the following equation:  $\Delta T = (T_{inlet} - T_{outlet})$

- (6) 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 oxidizer's catalyst bed when the emissions unit is in operation and venting VOC emissions to the catalytic oxidizer, 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 monitors and recorder(s) 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 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 was in operation and venting VOC emissions to the catalytic oxidizer, during which the average temperature of the exhaust gases immediately before the catalyst bed was less than 700 degrees Fahrenheit;
  - b. all 3-hour blocks of time, when the emissions unit was in operation and venting VOC emissions to the catalytic oxidizer, during which the average temperature difference across the catalyst bed was less than 25.6 degrees Fahrenheit; and
  - c. a log or record of the operating time for the capture (collection) system, catalytic oxidizer, 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.

- (7) 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:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. 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
- k. 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.

- (8) The permittee shall perform a preventative maintenance inspection of the catalytic oxidizer 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.
- (9) The permittee shall also perform weekly inspections of the external integrity of the catalytic oxidizer. 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 was in operation and venting VOC emissions to the catalytic oxidizer) during which the average temperature of the exhaust gases immediately before the catalyst bed was less than 700 degrees Fahrenheit;
  - b. all 3-hour blocks of time (when the emissions unit was in operation and venting VOC emissions to the catalytic oxidizer) during which the average temperature difference across the catalyst bed was less than 25.6 degrees Fahrenheit;
  - c. all 3-hour blocks of time (when the emissions unit was in operation and venting VOC emissions to the RTO) during which the average combustion temperature within the RTO was less than 1480 degrees Fahrenheit; and
  - d. a log of the operating time for the capture system, catalytic oxidizer, monitoring equipment, and the emissions unit(s); and
  - e. 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.

NOTE: A temperature difference across the catalyst bed that was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance is not necessarily indicative of a violation of the control (destruction) efficiency limitation for VOC.

- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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) and b)(2) 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 and 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.

If required, the permittee shall demonstrate compliance with the hourly VOC emission limitation in accordance with Methods 1-4 and 18, 25, or 25a, as appropriate, of 40 CFR Part 60, Appendix A.

The annual VOC emission limitation above was established by multiplying the hourly allowable VOC emission limitation by 8,760, and then dividing by 2,000. Therefore, as long as compliance with the hourly emission limitation is maintained, compliance with the annual emission limitation shall be demonstrated.

\*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 RTO and 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 and the RTO in accordance with the following requirements:
  - a. The emission testing shall be conducted within 6 months prior to the permit expiration.
  - b. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency and the control efficiency limitations for VOC.
  - c. 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.)

- d. 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.
  - e. 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.
  - f. 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).
  - g. 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.
  - h. 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, emission testing for the catalytic oxidizer within 6 months of starting the catalytic oxidizer back up for normal operations. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency and the control efficiency limitations for VOC and shall be conducted in accordance the requirements in f)(2)d. through f)(2)h. above.
- (4) The permittee shall conduct, or have conducted, catalyst activity testing using the catalyst sample collected during the annual inspection described in this permit. Anintento 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 "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee 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 toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new FEPTIO.



**3. K020, Post-Repair Spray 105**

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

Post-Repair Spray 105

- 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)(4), d)(5), d)(6), d)(7), and e)(2).
  - (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. b)(1)c.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operation(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 are identified below. 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) 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 volatile organic compound (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 2, 3, 4, and 5 of Section B - Facility-Wide Terms and Conditions.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(4) through d)(7) below.

(2) Additional Terms and Conditions

- a. VOC emissions from this emissions unit shall not exceed 2.93 pounds per hour and 12.83 tons per year.
- b. 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 emission limitations.
- c. All of the VOC emissions from this emissions unit shall be vented to an RTO that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) 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 less than 1480 degrees.
- (2) 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 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 less than 1480 degrees; 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.

- (3) 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:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the temperature readings immediately after the corrective action was implemented; and
- k. 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.



(4) The permit-to-install application for this emissions unit, K020, 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: Methyl Isobutyl Ketone

TLV (mg/m3): 82



Maximum Hourly Emission Rate (lbs/hr): 2.83\*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 958

MAGLC (ug/m3): 1952

Toxic Contaminant: Xylene

TLV (mg/m3): 434

Maximum Hourly Emission Rate (lbs/hr): 6.63\*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2236

MAGLC (ug/m3): 10,333

Toxic Contaminant: Ethyl Benzene

TLV (mg/m3): 434

Maximum Hourly Emission Rate (lbs/hr): 0.63\*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 213

MAGLC (ug/m3): 10,333

\*Combined emission rates from emissions units K020, K021, K022, and K027.

The permittee, has demonstrated that emissions of methyl isobutyl ketone, xylene, and ethyl benzene from emissions unit 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 "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (5) 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 "Toxic 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 "Toxic 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.

- (6) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic 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.

- (7) 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 less than 1480 degrees Fahrenheit; and
- b. 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 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 Permit Evaluation Report (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.
- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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 in b)(1) and b)(2) above shall be determined in accordance with the following methods:

- a. Emission Limitations:

VOC emissions from this emissions unit shall not exceed 2.93 pounds per hour and 12.83 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.

If required, the permittee shall demonstrate compliance with the hourly VOC emission limitation in accordance with Methods 1-4 and 18, 25, or 25a, as appropriate, of 40 CFR Part 60, Appendix A.



The annual VOC emission limitation above was established by multiplying the hourly allowable VOC emission limitation by 8,760, and then dividing by 2,000. Therefore, as long as compliance with the hourly emission limitation is maintained, compliance with the annual emission limitation shall be demonstrated.

\*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 and the RTO in accordance with the following requirements:
- a. The emission testing shall be conducted within 6 months prior to the permit expiration.
  - b. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency and the control efficiency limitations for VOC.
  - c. 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.)
  - d. 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.
  - e. 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.



- f. 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).
  - g. 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.
  - h. 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.



**4. K024, ECoater 104**

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

ECoater 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. b)(1)d.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operation(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 are identified below. 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)a. and b)(2)c. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year.  See b)(2)e. below.
c.	OAC rule 3745-21-09(D)(1)(a) or (D)(2)(a)	The permittee shall not employ any coating material in this emissions unit that is in excess of 2.8 pounds of volatile organic compound (VOC) per gallon of coating, excluding water and exempt solvents.
d.	OAC rule 3745-31-05(D)  (Synthetic Minor to Avoid Title V and MACT applicability under 40 CFR	See 2, 3, 4, and 5 of Section B - Facility-Wide Terms and Conditions.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	Part 63, Subpart KKKK)	

(2) Additional Terms and Conditions

- a. VOC emissions from this emissions unit shall not exceed 0.09 pound per hour and 0.39 ton per year.
- b. 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 emission limitations.
- c. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- d. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year.
- e. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

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 (nonvolatile matter) 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, 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) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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 0.09 pound per hour and 0.39 ton 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;
- 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.

If required, the permittee shall demonstrate compliance with the hourly VOC emission limitation in accordance with Methods 1-4 and 18, 25, or 25a, as appropriate, of 40 CFR Part 60, Appendix A.

The annual VOC emission limitation above was established by multiplying the hourly allowable VOC emission limitation by 8,760, and then dividing by 2,000. Therefore, as long as compliance with the hourly emission limitation is maintained, compliance with the annual emission limitation shall be demonstrated.

b. Emission Limitation:

The permittee shall not permit the use of any coating material that is in excess of 2.8 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.

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 "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee 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



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materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new FEPTIO.



**5. 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)(10), d)(11), d)(12) d)(13), and e)(2).
  - (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. b)(1)c.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operation(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 are identified below. 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 volatile organic compound (VOC) emissions from the coating line and the control efficiency of the regenerative thermal oxidizer (RTO) and 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 2, 3, 4, and 5 of Section B - 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)(10) through d)(13) below.

(2) Additional Terms and Conditions

- a. VOC emissions from this emissions unit shall not exceed 3.30 pounds per hour and 14.45 tons per year.
- b. 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 emission limitations.
- c. All of the VOC emissions from this emissions unit shall be vented to either an RTO or 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) 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 this emissions unit is in operation and venting VOC emissions to the RTO, shall not be less than 1480 degrees.
- (2) 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 and venting VOC emissions to the RTO, 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 permittee shall collect and record the following information each day the emissions unit is in operation and venting VOC emissions to the RTO:



- a. all 3-hour blocks of time, when the emissions unit was in operation and venting VOC emissions to the RTO, during which the average combustion temperature within the RTO was less than 1480 degrees Fahrenheit; 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.

- (3) 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:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the temperature readings immediately after the corrective action was implemented; and
- k. 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.

- (4) 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.

- (5) 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 is in operation and venting VOC emissions to the catalytic oxidizer, shall not be less than 700 degrees Fahrenheit. The acceptable average temperature difference across the catalyst bed\*, for any 3-hour block of time (when the emissions unit is in operation and venting VOC emissions to the catalytic oxidizer), shall not be less than 25.6 degrees Fahrenheit.

\*The average temperature difference across the catalyst bed shall be determined by the following equation:  $\Delta T = (T_{\text{inlet}} - T_{\text{outlet}})$

- (6) 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 oxidizer's catalyst bed when the emissions unit is in operation and venting VOC emissions to the catalytic oxidizer, 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 monitors and recorder(s) 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 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 was in operation and venting VOC emissions to the catalytic oxidizer, during which the average temperature of the exhaust gases immediately before the catalyst bed was less than 700 degrees Fahrenheit;
  - b. all 3-hour blocks of time, when the emissions unit was in operation and venting VOC emissions to the catalytic oxidizer, during which the average temperature difference across the catalyst bed was less than 25.6 degrees Fahrenheit; and
  - c. a log or record of the operating time for the capture (collection) system, catalytic oxidizer, 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.

- (7) 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:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. 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
- k. 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.

- (8) The permittee shall perform a preventative maintenance inspection of the catalytic oxidizer 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.

- (9) The permittee shall also perform weekly inspections of the external integrity of the catalytic oxidizer. 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.
  
- (10) The permit-to-install and operate application for this emissions unit, 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: Methyl Isobutyl Ketone

TLV (mg/m<sup>3</sup>): 82

Maximum Hourly Emission Rate (lbs/hr): 2.83\*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 958

MAGLC (ug/m<sup>3</sup>): 1952

Toxic Contaminant: Xylene

TLV (mg/m<sup>3</sup>): 434

Maximum Hourly Emission Rate (lbs/hr): 6.63\*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 2236

MAGLC (ug/m<sup>3</sup>): 10,333

Toxic Contaminant: Ethyl Benzene

TLV (mg/m<sup>3</sup>): 434

Maximum Hourly Emission Rate (lbs/hr): 0.63\*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 213

MAGLC (ug/m<sup>3</sup>): 10,333

\*Combined emission rates from emissions units K020, K021, K022, and K027.

The permittee, has demonstrated that emissions of methyl isobutyl ketone, xylene, and ethyl benzene from emissions unit K027, 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 "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (11) 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 "Toxic 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 "Toxic 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.

- (12) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic 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.
- (13) 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 was in operation and venting VOC emissions to the catalytic oxidizer) during which the average temperature of the exhaust gases immediately before the catalyst bed was less than 700 degrees Fahrenheit;
  - b. all 3-hour blocks of time (when the emissions unit was in operation and venting VOC emissions to the catalytic oxidizer) during which the average temperature difference across the catalyst bed was less than 25.6 degrees Fahrenheit;
  - c. all 3-hour blocks of time (when the emissions unit was in operation and venting VOC emissions to the RTO) during which the average combustion temperature within the RTO was less than 1480 degrees Fahrenheit;and
  - d. a log of the operating time for the capture system, catalytic oxidizer, monitoring equipment, and the emissions unit(s); and
  - e. 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.

NOTE: A temperature difference across the catalyst bed that was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance is not necessarily indicative of a violation of the control (destruction) efficiency limitation for VOC.

- (2) 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 Permit Evaluation Report (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.
- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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) and b)(2) above shall be determined in accordance with the following methods:



a. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 3.30 pounds per hour and 14.45 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.

If required, the permittee shall demonstrate compliance with the hourly VOC emission limitation in accordance with Methods 1-4 and 18, 25, or 25a, as appropriate, of 40 CFR Part 60, Appendix A.

The annual VOC emission limitation above was established by multiplying the hourly allowable VOC emission limitation by 8,760, and then dividing by 2,000. Therefore, as long as compliance with the hourly emission limitation is maintained, compliance with the annual emission limitation shall be demonstrated.

\*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 RTO and 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 and the RTO in accordance with the following requirements:

- a. The emission testing shall be conducted within 6 months prior to the permit expiration.



- b. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency and the control efficiency limitations for VOC.
- c. 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.
- 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. 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.
- f. 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).
- g. 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.
- h. 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, emission testing for the catalytic oxidizer within 6 months of starting the catalytic oxidizer back up for normal operations. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency and the control efficiency limitations for VOC and shall be conducted in accordance with the requirements in f)(2)d. through f)(2)h. above.
  - (4) 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.



**6. Emissions Unit Group - Group 1: K001, K004, K006, K008, K010, K025**

EU ID	Operations, Property and/or Equipment Description
K001	Blanked End Liner 101
K004	Blanked End Liner 102
K006	Blanked End Liner 103
K008	Blanked End Liner 104
K010	Blanked End Liner 105
K025	End Liner 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. 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. b)(1)d.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(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 are identified below. 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)a. through b)(2)c. and b)(2)e. below.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(D)(2)(e).
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	For emissions unit K025, the Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year.  See b)(2)f. below.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-21-09(D)(1)(e) or (D)(2)(e)	The permittee shall not use coatings that are in excess of 3.7 pounds of volatile organic compound (VOC) per gallon of coating, excluding water and exempt solvents.
d.	OAC rule 3745-31-05(D)  (Synthetic Minor to Avoid Title V and MACT applicability under 40 CFR Part 63, Subpart KKKK)	See 2, 3, 4, and 5 of Section B - Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

- a. For emissions units K001, K004, K006 and K008: VOC emissions from each emissions unit shall not exceed 3.64 pounds per hour and 15.94 tons per year.
- b. For emissions unit K010: VOC emissions shall not exceed 0.31 pound per hour and 1.36 tons per year.
- c. For emissions unit K025: VOC emissions shall not exceed 0.00 pound per hour and 0.00 ton per year.
- d. The hourly and annual VOC emission limitations represent each emissions unit's potentials to emit. Therefore, no monitoring, record keeping, and/or reporting requirements are necessary to ensure compliance with these emission limitations.
- e. For emissions unit K025, the Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(b)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- f. For emissions unit K025, these requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

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) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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) and b)(2) 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 and 15.94 tons per year.

For emissions unit K010: VOC emissions shall not exceed 0.31 pound per hour and 1.36 tons per year.

For emissions unit K025: VOC emissions shall not exceed 0.00 pound per hour and 0.00 ton 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.

If required, the permittee shall demonstrate compliance with the hourly VOC emission limitation in accordance with Methods 1-4 and 18, 25, or 25a, as appropriate, of 40 CFR Part 60, Appendix A.

The annual VOC emission limitations above were established by multiplying the hourly allowable VOC emission limitations by 8,760, and then dividing by 2,000. Therefore, as long as compliance with the hourly emission limitations is maintained, compliance with the annual emission limitations shall be demonstrated.

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.

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 "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee 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 toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new FEPTIO.



**7. Emissions Unit Group - Group 2: K007, K009, K011, K013, K015, K017, K019, K026**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
K007	Conversion Press 103
K009	Conversion Press 104
K011	Conversion Press 105
K013	Conversion Press 107
K015	Conversion Press 101
K017	Conversion Press 106
K019	Conversion Press 108
K026	Conversion Press 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. 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. b)(1)c.
- b) Applicable Emissions Limitations and/or Control Requirements
- (1) The specific operation(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 are identified below. 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)a.through b)(2)e. and b)(2)g. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	For emissions unit K017, the Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year.  See b)(2)h. below.
c.	OAC rule 3745-31-05(D)	See 2, 3, 4, and 5 of Section B - Facility-Wide Terms and Conditions.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	(Synthetic Minor to Avoid Title V and MACT applicability under 40 CFR Part 63, Subpart KKKK)	
d.	OAC rule 3745-21-07(M)(3)(c)(ii)	<p>The emissions units listed above shall not be subject to the requirements of (M)(3)(a) and (M)(3)(b) of OAC rule 3745-21-07 because the potential to emit for organic compound (OC) emissions is less than 40 pounds per day.</p> <p>*All OC emissions emitted from each emissions unit listed above are volatile organic compound (VOC) emissions.</p>

(2) Additional Terms and Conditions

- a. For emissions units K007, K009 and K015: VOC emissions from each emissions unit shall not exceed 0.58 pound per hour and 2.54 tons per year.
- b. For emissions unit K011: VOC emissions shall not exceed 0.52 pound per hour and 2.28 tons per year.
- c. For emissions units K013 and K019: VOC emissions from each emissions unit shall not exceed 0.39 pound per hour and 1.71 tons per year.
- d. For emissions unit K026: VOC emissions shall not exceed 1.06 pounds per hour and 4.64 tons per year.
- e. For emissions unit K017: VOC emissions shall not exceed 0.51 pound per hour and 2.23 tons per year.
- f. The hourly and annual VOC emission limitations above represent each emissions unit's potential to emit. Therefore, no monitoring, record keeping, and/or reporting requirements are necessary to ensure compliance with these emission limitations.
- g. For emissions unit K017, the Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(b)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- h. For emissions unit K017, these requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.



- c) Operational Restrictions
  - (1) None.
- d) Monitoring and/or Recordkeeping Requirements
  - (1) None.
- e) Reporting Requirements
  - (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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

- a. Emission Limitations:

For emissions units K007, K009 and K015: VOC emissions from each emissions unit shall not exceed 0.58 pound per hour and 2.54 tons per year.

For emissions unit K011: VOC emissions shall not exceed 0.52 pound per hour and 2.28 tons per year.

For emissions units K013 and K019: VOC emissions from each emissions unit shall not exceed 0.39 pound per hour and 1.71 tons per year.

For emissions unit K026: VOC emissions shall not exceed 1.06 pounds per hour and 4.64 tons per year.

For emissions unit K017: VOC emissions shall not exceed 0.51 pound per hour and 2.23 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.

If required, the permittee shall demonstrate compliance with the hourly VOC emission limitation in accordance with Methods 1-4 and 18, 25, or 25a, as appropriate, of 40 CFR Part 60, Appendix A.



The annual VOC emission limitations above were established by multiplying the hourly allowable VOC limitations by 8,760, and then dividing by 2,000. Therefore, as long as compliance with the hourly emission limitations is maintained, compliance with the annual emission limitations shall be demonstrated.

g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee 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 toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new FEPTIO.



**8. Emissions Unit Group -Group 3: K016, K018, K023**

EU ID	Operations, Property and/or Equipment Description
K016	Blanked End Liner 106
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. b)(1)e.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(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 are identified below. 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)b., b)(2)c., 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 3745-31-05(A)(3)	See b)(2)a. and b)(2)f. below.
c.	OAC rule 3745-31-05(A)(3)(a)(ii)	For emissions unit K016, the Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year.  See b)(2)g. below.
d.	OAC rule 3745-21-09(B)(6)  (In lieu of complying with the pounds	The capture and control system shall provide not less than an 81 percent reduction, by weight, in the overall volatile



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	of VOC per gallon of solids limitation contained in OAC rule 3745-21-09(D)(1)(e) or (D)(2)(e)	organic compound (VOC) emissions from the coating lines listed above 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.
e.	OAC rule 3745-31-05(D)  (Synthetic Minor to Avoid Title V and MACT applicability under 40 CFR Part 63, Subpart KKKK)	See 2, 3, 4, and 5 of Section B - Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

- a. For emissions unit K016: VOC emissions shall not exceed 0.76 pound per hour and 3.33 tons per year.
- b. For emissions unit K018: VOC emissions shall not exceed 0.60 pound per hour and 2.63 tons per year.
- c. For emissions unit K023: VOC emissions shall not exceed 1.08 pounds per hour and 4.73 tons per year.
- d. The hourly and annual VOC emission limitations represent the emissions unit's potential to emit. Therefore, no monitoring, record keeping, and/or reporting requirements are necessary to ensure compliance with these emission limitations.
- e. All of the VOC emissions from the emissions units listed above shall be vented to a regenerative thermaloxidizer (RTO) that shall meet the operational, monitoring, and record keeping requirements of this permit, when any of the emissions unit(s) listed above is/are in operation.
- f. For emissions unit K016, the Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(b)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- g. For emissions unit K016, these requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

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) 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 less than 1480 degrees.
- (2) 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 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 less than 1480 degrees; 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.

- (3) 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:



- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the temperature readings immediately after the corrective action was implemented; and
- k. 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 less than 1480 degrees; and
  - b. 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 submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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 K016: VOC emissions shall not exceed 0.76 pound per hour and 3.33 tons per year.

For emissions unit K018: VOC emissions shall not exceed 0.60 pound per hour and 2.63 tons per year.

For emissions unit K023: VOC emissions shall not exceed 1.08 pounds per hour and 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.

If required, the permittee shall demonstrate compliance with the hourly VOC emission limitations in accordance with Methods 1-4 and 18, 25, or 25a, as appropriate, of 40 CFR Part 60, Appendix A.

The annual VOC emission limitation above was established by multiplying the hourly allowable VOC emission limitation by 8,760, and then dividing by 2,000. Therefore, as long as compliance with the hourly emission limitation is maintained, compliance with the annual emission limitation shall be demonstrated.

\*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 lines listed above 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 the emissions units listed above and the RTO in accordance with the following requirements:
- a. The emission testing shall be conducted within 6 months prior to the permit expiration.
  - b. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency and the control efficiency limitations for VOC.
  - c. 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.)
  - d. 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.
  - e. 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.
  - f. 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).
  - g. 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.
  - h. 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



submission of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee 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 toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new FEPTIO.



**9. Emissions Unit Group -Group 4: K021, K022**

EU ID	Operations, Property and/or Equipment Description
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)e., d)(4), d)(5), d)(6), and d)(7).
  - (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. b)(1)d.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operation(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 are identified below. 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)a., b)(2)b. and b)(2)e. below.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(B)(6).
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	For emissions unit K021, the Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year.  See b)(2)f. below.
c.	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-	The capture and control system shall provide not less than an 81 percent reduction, by weight, in the overall VOC emissions from the coating lines listed above and the control efficiency of



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	09(U)(1)(a))	theregenerative thermal oxidizer (RTO) shall not be less than 90 percent, by weight, for the VOC emissions vented to it.
d.	OAC rule 3745-31-05(D)  (Synthetic Minor to Avoid Title V and MACT applicability under 40 CFR Part 63, Subpart KKKK)	See 2, 3, 4, and 5 of Section B - Facility-Wide Terms and Conditions.
e.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(4) through d)(7) below.

(2) Additional Terms and Conditions

- a. For emissions unit K021: VOC emissions shall not exceed 1.75 pounds per hour and 7.67 tons per year.
- b. For emissions unit K022: VOC emissions shall not exceed 2.47 pounds per hour and 10.82 tons per year.
- c. The hourly and annual VOC emission limitations represent the emissions unit's potential to emit. Therefore, no monitoring, record keeping, and/or reporting requirements are necessary to ensure compliance with these emission limitations.
- d. All of the VOC emissions from each emissions unit shall be vented to a regenerative thermaloxidizer (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).
- e. For emissions unit K021, the Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(b)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- f. For emissions unit K021, these requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements



- (1) 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 less than 1480 degrees.
- (2) 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 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 less than 1480 degrees Fahrenheit; 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.

- (3) 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:

- f. a description of the corrective action;
- g. the date corrective action was completed;



- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the temperature readings immediately after the corrective action was implemented; and
- k. 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.

- (4) The permit-to-install application for these emissions units, 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 "Toxic Air Contaminant Statute", 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 "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: Methyl Isobutyl Ketone

TLV (mg/m3): 82

Maximum Hourly Emission Rate (lbs/hr): 2.83\*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 958

MAGLC (ug/m3): 1952

Toxic Contaminant: Xylene

TLV (mg/m3): 434

Maximum Hourly Emission Rate (lbs/hr): 6.63\*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2236

MAGLC (ug/m3): 10,333

Toxic Contaminant: Ethyl Benzene

TLV (mg/m3): 434

Maximum Hourly Emission Rate (lbs/hr): 0.63\*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 213

MAGLC (ug/m3): 10,333

\*Combined emission rates from emissions units K020, K021, K022, and K027.

The permittee, has demonstrated that emissions of methyl isobutyl ketone, xylene, and ethyl benzene from emissions units K021 and K022, arecalculated 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 "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (5) 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 "Toxic 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 "Toxic 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.

- (6) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic 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.
  - (7) 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 less than 1480 degrees Fahrenheit;and
    - b. 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 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 Permit Evaluation Report (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.
  - (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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 in b) above shall be determined in accordance with the following methods:
    - a. Emission Limitations:



For emissions unit K021: VOC emissions shall not exceed 1.75 pounds per hour and 7.67 tons per year.

For emissions unit K022: VOC emissions shall not exceed 2.47 pounds per hour and 10.82 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 allowable VOC emission limitation by 8,760, and then dividing by 2,000. Therefore, as long as compliance with the hourly emission limitation is maintained, compliance with the annual emission limitation shall be assumed.

\*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 lines listed above 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 the emissions units listed and the RTO above in accordance with the following requirements:
  - a. The emission testing shall be conducted within 6 months prior to the permit expiration.
  - b. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency and the control efficiency limitations for VOC.



- c. 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.)
  - d. 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.
  - e. The test(s) shall be conducted while the emissions unit(s) is/are operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
  - f. 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).
  - g. 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.
  - h. 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.