Ohio Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

5/19/2016

Certified Mail

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

Melissa Farrington
The Andersons, Inc.
P.O. Box 119
Maumee, OH 43537

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0448031076
Permit Number: P0120789
Permit Type: OAC Chapter 3745-31 Modification
County: Lucas

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate (PTIO)for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, Toledo Blade. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page,www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
50 West Town Street Suite 700
PO Box 1049
Columbus, Ohio 43216-1049

and

Toledo Department of Environmental Services
348 South Erie Street
Toledo, OH 43604

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted.Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now.If you have any questions, please contact Toledo Department of Environmental Services at (419)936-3015.

Sincerely,

Michael E. Hopkins, P.E.
Assistant Chief, Permitting Section, DAPC

Cc: U.S. EPA Region 5 *Via E-Mail Notification*
TDES; Michigan; Indiana; Canada

Permit Strategy Write-Up

1. Check all that apply:

   _X_ Synthetic Minor Determination

   Netting Determination

2. Source Description:
   This facility refurbishes railcars. Current emissions units at this facility include: F001 (railcar repair welding), K001 (railcar paint booth), P001 (railcar shotblast booth), and P003 (railcar cleaning). This permit is for the installation of a second railcar paint booth. K001 consisted of a separate railcar paint booth and railcar paint curing booth, and coating and curing for K001 will now be done in the same booth. K001 has (2) 2 mmBtu/hr and (1) 2.5 mmBtu/hr direct-fired natural gas burners for space heating and curing the paint.

   The permittee proposes to remove the curing oven currently installed at K001 and replace it with a new railcar coating booth (K002). The permittee's application requested that K001 and the new booth be considered one emissions unit, however, TES is permitting the two booths as separate spray coating booths.

   The initial installation permit for K002 is being processed under Permit P0120588. This permit, P0120789 is for the Administrative Modification of K001.

   The curing oven with 2.5 mmBtu/hr burner for K001 is being removed. The Permittee has requested a Chapter 31 Modification to increase the allowable emissions for K001 to the same level being permitted for K002 in P0120588. A synthetic minor restriction has been requested to limit the combined VOC emissions from K001 and K002.

3. Facility Emissions and Attainment Status:
   This facility is currently a synthetic minor source of VOC and HAP emissions, and a minor source of other pollutants. This facility is located in Lucas County, which is currently designated attainment for all NAAQS standards.

		CO, tons/yr	**NO_x, tons/yr**	**PM_{10}, tons/yr**	**SO_2, tons/yr**	**VOC, tons/yr**
F001				8.88		
K001	coating+cleanup			3.8		67.3[1]
	combustion	1.44	1.72	0.13	0.01	0.09
K002	coating+cleanup			3.80		67.3[1]
	combustion	1.88	2.24	0.17	0.01	0.12
P001				2.23		
P003				11.06		
Total		3.32	3.96	30.07[2]	0.03	67.51[1]

1. The VOC usage for coatings and cleanup materials employed at K001 and K002 combined have a synthetic minor restriction of 67.3 tons per rolling, 12-month period.
2. The synthetic minor VOC coatings and cleanup materials usage restriction at K001 and K002 also has the effect of limiting the combined PM_{10} emissions from K001 and K002.

However, since it is not necessary to restrict the combined PM10 emissions from K001 and K002 to avoid PSD or Title V, so a synthetic minor PM_{10} emission limitation for K001 and K002 is not being requested.

4. Source Emissions:
There will be emissions from coating, cleanup solvent, and natural gas combustion products. Emissions from combustion products were estimated using emission factors from AP-42 Tables 1.4-1 and 1.4-2 dated 7/98.

Combustion Products
Maximum firing rate = 4 mmBtu/hr
CO = 84 lb/mmscf
NO_x = 100 lb/mmscf
PE = 1.9 lb/mmcf
PM_{10} 7.6 lb/mmscf (filterable + condensable)
SO_2 0.6 lb/mmscf
VOC 5.5 lb/mmscf

The calculations in the permit application used a heating value of 1,050 Btu/scf based on Appendix A of AP-42 and estimated emissions by dividing 4 mmBtu/hr by 1,050 Btu/scf and multiplied by the AP-42 emission factor (lb/mmscf). It turns out that using a different heating value has no effect on the resulting emissions when compared to using the standard value of 1,020 Btu/scf from AP-42 Section 1.4, since a footnote to Tables 1.4-1 and 1.4-2 of AP-42 indicates to multiply by the ratio of (1,050/1,020), and the 1,050 values cancel out in the below equation.

Tons/yr = 4 mmBtu/hr(mmscf/1,050 mmBtu)(AP-42 EF lb/mmscf)(1,050 Btu/scf / 1,020 Btu/scf)(8760 hrs/yr)(ton/2000 lb)

	tons/yr	tons/month
CO	1.443	0.12
NO_x	1.718	0.14
PE	0.033	0.003
PM_{10}	0.130	0.01
SO_2	0.010	0.001
VOC	0.094	0.01

Coating Emissions
The permit application identifies 8 different coating formulations that may be used at this emissions unit, and the coatings will be applied to railcars, which fits the definition of miscellaneous metal parts under OAC rule 3745-21-09. The maximum coating application rate is reported as being 16 gallons per hour using airless spray guns. The permittee has indicated that the spray guns have an estimated 40% transfer efficiency based on AP-42 Section 4.2.2.4. TES did not find a reference to an airless spray transfer efficiency in AP-42 Section 4.2.2.4, but will accept the 40% value since it is not too high when compared to other sources of information. Particulate emissions will be controlled by passive filters with greater than 98% efficiency.

The coating with the highest VOC content is identified as Amercoat 450 H, and has a VOC content of 3.02 lb/gal as applied. The worst case solids content as applied is Carboguard 995 with a solids content of 11.74 lbs solids per gallon of coating, as applied.

Maximum hourly VOC emissions are:
VOC = 16 gal/hr(3.02 lb/gal) = 48 lbs/hr VOC

Maximum hourly PM10 emissions are:
PE/PM_{10} = 16 gal/hr(11.74 lbs solids/gal)(1-0.4)(1-0.98) = 2.2 lbs/hr
The permittee has assumed that all particulate emissions are emitted in the form of $PM_{10.}$

The permittee has requested an annual emissions limitation based on the following coating information:
maximum coating usage 54,000 gal/yr, as applied (Table C-1 of application);
average VOC content of 2.04 lbs VOC/gal, as applied (Table C-1 of application);
average solids content of 11.74 lbs solids/gal, as applied (Table C-1 of application);
cleanup solvent usage of 3,600 gal/yr with a solvent density of 6.76 lb/gal (MEK).

Annual Emissions

Coatings
VOC = 54,000 gal/yr(2.04 lbs VOC/gal)(ton/2,000 lbs) = 55.08 tons/yr
PE/PM_{10} emissions = 54,000 gal/yr(11.74 lbs solids/gal)(1-0.4)(1-0.98)(ton/2000 lb) = 3.80 tons/yr

Cleanup Solvent
VOC = 3,600 gal/yr(6.76 lb VOC/gal)(ton/2,000 lbs) = 12.17 tons/yr

Natural gas combustion
VOC = 0.09 ton/yr

Combined Emissions from Coatings, Cleanup Materials, and natural gas combustion
VOC = 55.08 tons/yr + 12.17 tons/yr + 0.09 ton/yr = 67.3 tons/yr
*The allowable VOC emissions will be rounded up to **67.4 tons/yr** to match the allowable emissions for K002 to simplify the company's monitoring and recordkeeping requirements. Also, to simplify recordkeeping requirements, BAT will be established as a tons per rolling, 12-month emission limitation as requested by the permittee, rather than a tons per month averaged over a 12-month rolling period.*

PE = 0.033 + 3.8 = **3.83**
PM_{10} = 0.13 + 3.8 = 3.93
PM_{10}= 3.93 tons/yr /(12 months/yr) = **0.33 ton per month**

The VOC emissions increase from this project were determined by subtracting the allowable emissions for K001 (55.1 tons/yr from coating/cleanup + 0.15 ton/yr from natural gas combustion at K001 prior to modification) from the total permit allowable VOC emissions contained in this permit for K002 (67.4 tons/yr) for a total emissions increase of 12.15 tons/yr VOC from the project.

5. Conclusion:
It is recommended that this permit first be issued as a draft due to the synthetic minor VOC limit

6. Please provide additional notes or comments as necessary:

Applicable Rules and Regulations

OAC rule 3745-17-07(A)(1) Visible particulate emissions shall not exceed 20% opacity as a 6-minute average.

OAC rule 3745-17-10	Not applicable. The definition of "fuel burning equipment" in OAC rule 3745-17-01(B)(5) excludes equipment where the combustion products come into contact with process emissions. The permittee has indicated that the heater is direct fired, and combustion products do come into contact with coating emissions.
OAC rule 3745-17-11(B)(2)	This rule does not apply. The definition of process weight rate in OAC rule 3745-17-01(B)(17) does not include the weight of gaseous fuels only used for combustion. OAC rule 3745-17-11(B)(2) does not apply to surface coating operations subject to OAC rule 3745-17-11(C).
OAC rule 3745-17-11(C)	Requirements for surface coating processes
OAC rule 3745-18-06(C)	Exemption from this rule since the maximum process weight rate is less than 1,000 lbs/hr.
OAC rule 3745-21-09(U)	Surface coating of miscellaneous metal parts and products – the permittee has indicated that there are 3 paragraphs under this rule that will apply to the coatings potentially employed Recordkeeping requirements in the permit for OAC rule 3745-21-09(U) compliance were drafted using Ohio EPA's Permit Library of Terms and Conditions for coating lines using compliant coatings.
-21-09(U)(1)(c)	3.5 lbs VOC/gal, excluding water and exempt solvents for an extreme performance coating
-21-09(U)(1)(d)	3.5 lbs VOC/gal, excluding water and exempt solvents for any coating that is dried at temperatures not exceeding 200 degrees F
OAC rule 3745-31-05(A)(3)	BAT requirements. BAT only applies to CO, NO_x, PM_{10}, and SO_2 emissions until approval of the less than 10 ton/yr BAT exemption by U.S. EPA. It is not necessary to add monitoring and recordkeeping requirements to demonstrate compliance with the ton per month allowable emissions limitations for CO, NO_x, and SO_2 emissions, since allowable emissions are based on the unrestricted potential to emit.
ORC 3704.03(T)	BAT requirements for VOC emissions due to being greater than 10 tons/yr The permittee initially requested a BAT limit of 55.1 tons/year as a rolling, 12-month summation and 3.5 lbs VOC/gallon, excluding water and exempt solvents for extreme performance coatings. Only 1 BAT limit can be applied for each pollutant per current BAT policy guidance. Since the permit application indicates that there may be coatings applied that are required to meet a 3.0 lb VOC/gal, excluding water & exempt solvent limit, To simplify recordkeeping requirements, BAT will be established as a tons per rolling, 12-month emission limitation as requested by the permittee, rather than a tons per month averaged over a 12-month rolling period, rather than the tons/month rolling average recommended in the 2/7/2014 BAT guidance memo for permits issued after 2/7/2014. TES calculated a VOC limit of 67.4 tons VOC per rolling, 12-month period, since the requested 55.1 tons/yr limit did not appear to account for cleanup materials.
OAC rule 3745-31-05(D)	Synthetic Minor restriction necessary to restrict emissions to less than the PSD & Title V thresholds. TES will set the limit as 67.3 tons per rolling, 12-month period for the combined coating and cleanup solvent emissions from K001 and K002. Note that this synthetic minor limitation is lower

than the limit for the entire emissions unit, since it does not include the VOC emissions from the combustion of natural gas, and is only intended to include emissions from coatings and cleanup materials employed.

40 CFR Part 63, Subpart MMMM

This rule does not apply, since this facility is not a major source of HAP

40 CFR Part 63, Subpart HHHHHH

This rule does not apply, since this facility uses abrasive blasting rather than chemical strippers to remove coatings, and the permittee has indicated that they do not use a coatings containing a target HAP [chromium, lead, manganese, nickel, or cadmium].

Toxic Air Contaminants

The permittee estimated emissions of toxic air contaminants and conducted modeling using AERSCREEN to determine the maximum modeled ground-level concentration. The maximum modeled ground-level concentration was compared to the maximum acceptable ground-level concentration (MAGLC). The permit application indicates that maximum modeled ground-level concentration is based on the average toxic air contaminant content of all coatings that are expected to be used during the year, rather than the maximum hourly toxic air contaminant emissions from the coatings containing the highest weight percent of each toxic air contaminant.

The permit application indicates that the following toxic air contaminants have potential emissions greater than 1 tons per year: ethyl benzene, toluene, xylene, and methyl isobutyl ketone.

	% by weight averaged over all coatings used (used in permit application for modeling toxics review)	Maximum % by weight in any coating used (Used by TES for toxics review)
Ethyl Benzene	0.66	2.64 (Hempadur Mastic 45880)
Methyl Isobutyl Ketone	0.59	4.50 (Carboguard 895)
Xylene	2.54	9.50 (Hempadur Mastic 45880)
Toluene	0.36	2.77 (Carboguard 876)

TES will re-calculate the maximum hourly emissions of each of the above toxic air contaminants based on the worst case HAP content of each coating used to ensure that the worst case toxic air contaminant emissions will comply with MAGLC.

Paint Density as applied

Hempadur Mastic 45880 = 11.51 lb/gal
Carboguard 895 = 11.77 lb/gal
Carboguard 876 = 13.29 lb/gal

MAGLC Calculation TLV in ppm = (TLV mg/m^3) (24.45) / (MW)
Source: ACGIH 2013 TLVs and BEIs

Ethyl Benzene
TWA = 20 ppm
MW = 106.16
TLV(mg/m^3) = 20(106.16)/24.45 = 86.8384 mg/m^3 = 86,838 ug/m^3

MAGLC = TLV/42 = 86,838/42 = 2,066 ug/m^3

Methyl Isobutyl Ketone
TWA = 20 ppm
MW = 100.16
TLV(mg/m^3) = 20(100.16)/24.45 = 81.9305 mg/m^3 = 81,930 ug/m^3

MAGLC = TLV/42 = 81,930/42 = 1,951 ug/m^3

Xylene
TWA = 100 ppm
MW = 106.16
TLV(mg/m^3) = 100(100.16)/24.45 = 409.652 mg/m^3 = 409,652 ug/m^3

MAGLC = TLV/42 = 409,652/42 = 9,754 ug/m^3

Toluene
TWA = 20 ppm
MW = 92.13
TLV(mg/m^3) = 20(92.13)/24.45 = 75.362 mg/m^3 = 75,362 ug/m^3

MAGLC = TLV/42 = 75,362/42 = 1,794 ug/m^3

Maximum hourly toxic air contaminant emissions (> 1 ton/yr)
Ethyl Benzene = 16 gal/hr(11.51 lb/gal)(0.0264) = 4.86 lb/hr = 0.613 g/s
Methyl Isobutyl Ketone = 16 gal/hr(11.77 lb/gal)(0.045) = 8.47 lb/hr = 1.07 g/s
Xylene = 16 gal/hr(11.51 lb/gal)(0.095) = 17.5 lb/hr = 2.21 g/s
Toluene = 16 gal/hr(11.77 lb/gal)(0.0277) = 5.22 lb/hr = 0.658 g/s

The modeled ground-level concentration at an input of 1 g/s = 213.40 ug/m^3 from Table 3-1 of the Permit Application attachment. To determine the maximum ambient impact in the below table, the output from the AERSCREEN model (213.40 ug/m^3) was multiplied by the g/s emission rate calculated above for each toxic air contaminant emitted > 1 ton/yr.

	Maximum Ambient Impact, ug/m^3	MAGLC, ug/m^3	Ambient Impact < MAGLC (Yes/No)
Ethyl Benzene	131	2,066	YES
Methyl Isobutyl Ketone	228	1,951	YES
Xylene	472	9,754	YES
Toluene	1,114	1,794	YES

7. Total Permit Allowable Emissions Summary (for informational purposes only):

Pollutant	Tons Per Year
CO	1.44
NO_x	1.72
PE	3.83
PM_{10}	3.93
SO_2	0.01
VOC	67.4 (12.5 increase)

PUBLIC NOTICE

The following matters are the subject of this public notice by the Ohio Environmental Protection Agency. The complete public notice, including any additional instructions for submitting comments, requesting information, a public hearing, or filing an appeal may be obtained at:http://epa.ohio.gov/actions.aspx or Hearing Clerk, Ohio EPA, 50 W. Town St., Columbus, Ohio 43215. Ph: 614-644-2129 email:HClerk@epa.ohio.gov

Draft Air Pollution Permit-to-Install and Operate OAC Chapter 3745-31 Modification
The Andersons, Inc.
421 Illinois Ave,, Maumee, OH 43537
ID#:P0120789
Date of Action: 5/19/2016
Permit Desc:Chapter Modification of K001 to revise allowable emissions..
The permit and complete instructions for requesting information or submitting comments may be obtained at: http://epa.ohio.gov/dapc/permitsonline.aspx by entering the ID # or: Matthew Stanfield, Toledo Department of Environmental Services, 348 South Erie Street, Toledo, OH 43604. Ph: (419)936-3015

DRAFT

Division of Air Pollution Control
Permit-to-Install and Operate
for
The Andersons, Inc.

Facility ID:	0448031076
Permit Number:	P0120789
Permit Type:	OAC Chapter 3745-31 Modification
Issued:	5/19/2016
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance

Ohio Environmental Protection Agency

Division of Air Pollution Control
Permit-to-Install and Operate
for
The Andersons, Inc.

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Authorization

Facility ID:	0448031076
Application Number(s):	A0055694
Permit Number:	P0120789
Permit Description:	Chapter Modification of K001 to revise allowable emissions.
Permit Type:	OAC Chapter 3745-31 Modification
Permit Fee:	$200.00*DO NOT send payment at this time, subject to change before final issuance*
Issue Date:	5/19/2016
Effective Date:	To be entered upon final issuance
Expiration Date:	To be entered upon final issuance
Permit Evaluation Report (PER) Annual Date:	To be entered upon final issuance

This document constitutes issuance to:

The Andersons, Inc.
421 Illinois Ave
Maumee, OH 43537

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:

Toledo Department of Environmental Services
348 South Erie Street
Toledo, OH 43604
(419)936-3015

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: P0120789
Permit Description: Chapter Modification of K001 to revise allowable emissions.

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

Emissions Unit ID:	**K001**
Company Equipment ID:	Paint Booth & Curing Booth
Superseded Permit Number:	P0112212
General Permit Category and Type:	Not Applicable

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 Toledo Department of Environmental Services 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 beingpermanently shut down without first applying for and obtaining a permit pursuantto 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.

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) None.

C. Emissions Unit Terms and Conditions

1. K001, Paint Booth #1

Operations, Property and/or Equipment Description:

Railcar spray booth with 4 mmBtu/hr natural gas-fired heater

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)c., b)(2)b., d)(9) through d)(12), and e)(3)

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

a. b)(1)d., b)(2)c., d)(3), e)(1), and f)(1)h.

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.	ORC 3704.03(T) and OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from coatings, cleanup materials, and natural gas combustion shall not exceed 67.4 tons per rolling, 12-month period.
b.	OAC rule 3745-31-05(A)(3) June 30, 2008	Carbon monoxide (CO) emissions shall not exceed 0.12 ton per month averaged over a twelve-month rolling period. Nitrogen oxides (NO_x) emissions shall not exceed 0.14 ton per month averaged over a twelve-month rolling period. Particulate matter with an aerodynamic diameter of less than or equal to 10 microns in diameter (PM_{10}) shall not exceed 0.33 ton per month averaged over a twelve-month rolling period.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Sulfur dioxide (SO_2) emissions shall not exceed 0.001 ton per month averaged over a twelve-month rolling period. See b)(2)a.
c.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO, PM_{10}, NO_x, and SO_2 emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)b.
d.	OAC rule 3745-31-05(D) June 30, 2008	See b)(2)c.
e.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average.
f.	OAC rule 3745-17-11(C)	See c)(1), c)(2), and d)(4) through d)(8).
g.	OAC rule 3745-18-06(C)	Exemption See b)(2)d.
h.	OAC rule 3745-21-09(U)(1)(c), (d)	VOC emissions shall not exceed 3.5 pounds of VOC per gallon of coating, excluding water and exempt solvents for any extreme performance coating or any coating that is dried at temperatures not exceeding two hundred degrees Fahrenheit.
i.	ORC 3704.03(F) OAC rule 3745-114-01	See d)(9) through d)(12) and e)(2).
j.	40 CFR Part 63, Subpart MMMM	See b)(2)e.
k.	40 CFR Part 63, Subpart HHHHHH	See b)(2)f.

(2) Additional Terms and Conditions

a. 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).

b. 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. The maximum coatings and cleanup materials usage at emissions units K001 and K002 combined shall be limited by the following formula, calculated as a rolling, 12-month summation:

$$67.3 \text{ tons VOC} \geq \sum_{i=1}^{n}(\text{CCMK1K2}_i)\,(\text{VOCK1K2}_i) \div (2000 \text{ lbs/ton})$$

Where:

$CCMK1K2_i$ = gallons of coating and cleanup material *i* employed at K001 and K002

$VOCK1K2_i$ = volatile organic compound content of coating and cleanup material *i* employed at K001 and K002, pounds per gallon

d. This emissions unit is exempt from the SO_2 emission limitation specified by OAC rule 3745-18-06(E), since the maximum process weight rate is less than 1,000 pounds per hour.

e. The requirements of this rule do not apply to this emissions unit, since this facility is not a major source of HAP emissions.

f. The requirements of this rule do not apply, since the permittee has indicated that coatings containing a target HAP [chromium, lead, manganese, nickel, or cadmium] are not employed at this emissions unit.

c) Operational Restrictions

(1) The permittee shall install and operate a dry filtration system for the control of particulate emissions whenever this emissions unit is in operation and shall maintain the dry particulate filter in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.

(2) In the event the particulate filter system is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions..

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee having chosen to comply by employing only compliant coatings shall collect and record on a monthly basis the following information for purposes of compliance with the emissions limitations under OAC rule 3745-21-09(U)(1) for coating material applied to miscellaneous metal parts:

a. The name and identification number of each coating, as applied; and

b. The VOC content of each coating employed (excluding water and exempt solvents), as applied.

(2) For purposes of determining compliance with the 67.4 tons per rolling, 12-month period VOC emissions limitation from coatings and cleanup materials employed and natural gas

combustion at K001, and the PM_{10} emission limitation of 0.33 ton per month averaged over a twelve-month rolling period, the permittee shall collect and record on a monthly basis the following information for this emissions unit:

a. The name and identification number of each coating and cleanup material, as applied;

b. the number of gallons of each coating and cleanup material employed, as applied (CCM_i);

c. the volatile organic compound content of each coating and cleanup material employed, in pounds per gallon as applied, (VOC_i);

d. the solids content of each coating material employed, in pounds per gallon, as applied;

e. the total VOC emissions from all coatings and cleanup materials employed, in tons per month;

f. the total VOC emissions from natural gas combustion in tons per month;

g. the VOC emissions from all coatings and cleanup materials employed and from natural gas combustion, in tons per rolling, 12-month period.

h. the PM_{10} emissions from all coatings employed, in tons per month;

i. the PM_{10} emissions from natural gas combustion, in tons per month;

j. the PM_{10} emissions from all coatings employed and from natural gas combustion, in tons per month averaged over a twelve-month rolling period.

(3) For purposes of determining compliance with the rolling, 12-month VOC emission limitation for coatings and cleanup materials (67.3 tons) from K001 and K002 combined, the permittee shall collect and record on a monthly basis the following information for this emissions unit:

a. the company identification for each coating and cleanup material employed at K001 and K002;

b. the number of gallons of each coating and cleanup material employed at K001 and K002, ($CCMK1K2_i$);

c. the volatile organic compound content of each coating and cleanup material employed at K001 and K002, in pounds per gallon as applied, ($VOCK1K2_i$);

d. the total VOC emissions from all coatings and cleanup materials employed at K001 and K002 combined, in tons, calculated by using the formula as specified in b)(2)c.

Emissions unit K001 has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of VOC emissions, upon issuance of this permit.

(4) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the dry particulate filter, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

(5) The permittee shall conduct periodic inspections of the dry particulate filter to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency and it shall be made available to the Ohio EPA upon request.

(6) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the dry particulate filter while the emissions unit is shut down and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.

(7) The permittee shall document each inspection (periodic and annual) of the dry particulate filter system and shall maintain the following information:

a. the date of the inspection;
b. a description of each/any problem identified and the date it was corrected;
c. a description of any maintenance and repairs performed; and
d. the name of person who performed the inspection.

These records shall be maintained at the facility for not less than five years from the date the inspection and any necessary maintenance or repairs were completed and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

(8) The permittee shall maintain records that document any time periods when the dry particulate filter was not in service when the emissions unit(s) was/were in operation, as well as, a record of all operations during which the dry particulate filter was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA upon request.

(9) The FEPTIO application for this emissions unit, K001, 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/these emissions unit(s) 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: Ethyl Benzene

   TLV (mg/m3): 86.8384

   Maximum Hourly Emission Rate (lbs/hr): 4.86

   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 131

   MAGLC (ug/m3): 2,066

Toxic Contaminant: Methyl Isobutyl Ketone

TLV (mg/m3): 81.9305

Maximum Hourly Emission Rate (lbs/hr): 8.47

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 228

MAGLC (ug/m3): 1,951

Toxic Contaminant: Xylene

TLV (mg/m3): 409.652

Maximum Hourly Emission Rate (lbs/hr): 17.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 472

MAGLC (ug/m3): 9,754

Toxic Contaminant: Toluene

TLV (mg/m3): 75.362

Maximum Hourly Emission Rate (lbs/hr): 5.22

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,114

MAGLC (ug/m3): 1,794

The permittee, has demonstrated that emissions of ethyl benzene, toluene, xylene, and methyl isobutyl ketone, from emissions unit K001 is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

(10) 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 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.

(11) 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.

(12) 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 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:

The maximum coatings and cleanup materials usage restriction for K001 and K002 combined specified in b)(2)c.

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 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).

(2) The permittee shall notify the Director (the Toledo Division of Environmental Services) of any monthly record showing the use of a coating in this emissions unit which exceeded 3.5 pounds VOC per gallon, excluding water and exempt solvents. The notification shall include a copy of such record and shall be submitted within 30 days following the end of the calendar month.

(3) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual 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.

(4) 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.

(5) 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.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Volatile organic compound (VOC) emissions from coatings, cleanup materials, and natural gas combustion shall not exceed 67.4 tons per rolling, 12-month period.

Applicable Compliance Method:

The records required by d)(2) shall serve as demonstration of compliance with this emissions limitation.

This emission limitation was developed by calculating the maximum annual emissions from coatings and cleanup materials, and from natural gas combustion at K001. The maximum annual coating application rate (54,000 gal/yr) was multiplied by the annual average coating VOC content (2.04 lb/gal, as applied) to determine the annual VOC emissions from coating (55.08 tons/yr). The maximum annual cleanup material usage (3,600 gal/yr) was multiplied by the VOC content of cleanup material (6.76 lb/gal) to determine the annual VOC emissions from cleanup materials (12.17 tons/yr). The maximum heat input to the heater (4 mmBtu/hr) was multiplied by the emission factor for VOC from AP-42 Table 1.4-2 dated 7/98 (5.5 lb/mmscf) divided by the average natural gas heating value specified by the permittee from AP-42 Appendix A (1,050 Btu/mmscf), multiplied by the ratio of the permittee specified natural gas heating value from AP-42 Appendix A to the AP-Table 1.4-2 average heating value (1,050 Btu/scf / 1,020 Btu/scf), multiplied by the maximum annual hours of operation (8,760 hrs/yr) divided by 2,000 pounds per ton to determine the emissions from natural gas combustion (0.09 ton/yr).

b. Emission Limitation:

Carbon monoxide (CO) emissions shall not exceed 0.12 ton per month averaged over a twelve-month rolling period.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit by multiplying the maximum heat input (4 mmBtu/hr) by the emission factor for CO from AP-42 Table 1.4-1 dated 7/98 (84 lb/mmscf) divided by the average natural gas heating value specified by the permittee from AP-42 Appendix A (1,050 Btu/mmscf), multiplied by the ratio of the permittee specified natural gas heating value from AP-42 Appendix A to the AP-Table 1.4-1 average heating value (1,050 Btu/scf / 1,020 Btu/scf), multiplied by the maximum annual hours of operation (8,760 hrs/yr) divided by 2,000 pounds per ton, and divided by 12 months per year.

If required, the permittee shall determine a CO emission factor using Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

c. Emission Limitation:

Nitrogen oxides (NOx) emissions shall not exceed 0.14 ton per month averaged over a twelve-month rolling period.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit by multiplying the maximum heat input (4 mmBtu/hr) by the emission factor for NO_x from AP-42 Table 1.4-1 dated 7/98 (100 lb/mmscf) divided by the average natural gas heating value specified by the permittee from AP-42 Appendix A (1,050 Btu/mmscf), multiplied by the ratio of the permittee specified natural gas heating value from AP-42 Appendix A to the AP-Table 1.4-1 average heating value (1,050 Btu/scf / 1,020 Btu/scf), multiplied by the maximum annual hours of operation (8,760 hrs/yr) divided by 2,000 pounds per ton, and divided by 12 months per year.

If required, the permittee shall determine a NO_x emission factor using Methods 1 through 4 and 7E of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. Emission Limitation:

Particulate matter with an aerodynamic diameter of less than or equal to 10 microns in diameter (PM_{10}) shall not exceed 0.33 ton per month averaged over a twelve-month rolling period.

Applicable Compliance Method:

This emission limitation was developed to reflect the potential to emit for this emissions unit as the sum of the natural gas combustion PM_{10} emissions and from the spray coating PM_{10} emissions divided by 12 months per year. The emissions from natural gas combustion were determined by multiplying the maximum heat input (4 mmBtu/hr) by the emission factor for PM_{10} from AP-42

Table 1.4-2 dated 7/98 (7.6 lb/mmscf) divided by the average natural gas heating value specified by the permittee from AP-42 Appendix A (1,050 Btu/mmscf), multiplied by the ratio of the permittee specified natural gas heating value from AP-42 Appendix A to the AP-Table 1.4-2 average heating value (1,050 Btu/scf / 1,020 Btu/scf), multiplied by the maximum annual hours of operation (8,760 hrs/yr) and divided by 2,000 pounds per ton, resulting in PM_{10} emissions of 0.17 ton per year. The emissions from spray coating were determined by multiplying the maximum annual coating usage (54,000 gal/yr) by the annual average solids content (11.74 lbs/gal) multiplied by one minus the decimal fraction transfer efficiency for airless spray as supplied by the permittee (1-0.4) multiplied by one minus the decimal fraction control efficiency for dry filtration as supplied by the permittee (1-0.98), and divided by 2,000 pounds per ton, resulting in PM_{10} emissions of 3.8 tons per year. Divide the sum of the PM_{10} emissions from coatings and natural gas combustion (0.13 ton/yr + 3.8 tons/yr) by 12 months per year.

If required, the permittee shall determine a PM_{10} emission factor using Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

e. Emission Limitation:

Sulfur dioxide (SO2) emissions shall not exceed 0.001 ton per month averaged over a twelve-month rolling period.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit by multiplying the maximum heat input (4 mmBtu/hr) by the emission factor for SO_2 from AP-42 Table 1.4-2 dated 7/98 (0.6 lb/mmscf) divided by the average natural gas heating value specified by the permittee from AP-42 Appendix A (1,050 Btu/mmscf), multiplied by the ratio of the permittee specified natural gas heating value from AP-42 Appendix A to the AP-Table 1.4-2 average heating value (1,050 Btu/scf / 1,020 Btu/scf), multiplied by the maximum annual hours of operation (8,760 hrs/yr) divided by 2,000 pounds per ton, and divided by 12 months per year.

If required, the permittee shall determine a SO_2 emission factor using Methods 1 through 4 and 6C of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

f. Emission Limitation:

Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a 6-minute average.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using Method 9 of 40 CFR Part 60, Appendix A.

g. Emission Limitation:

VOC emissions shall not exceed 3.5 pounds of VOC per gallon of coating, excluding water and exempt solvents for any extreme performance coating or any coating that is dried at temperatures not exceeding two hundred degrees Fahrenheit.

Applicable Compliance Method:

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:

the name and identification number of each coating, as applied; and

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, 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.

h. Emission Limitation:

VOC emissions from coatings and cleanup materials employed at K001 and K002 combined shall not exceed 67.3 tons per rolling, 12-month period.

The records required by d)(3) shall serve as demonstration of compliance with this emissions limitation.

This emission limitation was developed by calculating the maximum annual emissions from coatings and cleanup materials. The maximum annual coating application rate (54,000 gal/yr) was multiplied by the annual average coating VOC content (2.04 lb/gal, as applied) to determine the annual VOC emissions from coating (55.08 tons/yr). The maximum annual cleanup material usage (3,600 gal/yr) was multiplied by the VOC content of cleanup material (6.76 lb/gal) to determine the annual VOC emissions from cleanup materials (12.17 tons/yr).

(2) In accordance with OAC rule 3745-21-10, U.S. EPA Method 24 shall be used to determine the VOC content of coatings and cleanup materials, where formulation data is not based on the same method or if it is determined to be necessary by the Director.

(3) In accordance with OAC rule 3745-21-04(B)(5), facilities located in Ashtabula, Butler, Clark, Clermont, Cuyahoga, Delaware, Franklin, Geauga, Greene, Hamilton, Lake, Licking, Lorain, Lucas, Mahoning, Medina, Miami, Montgomery, Portage, Stark, Summit, Trumbull, Warren and Wood Counties shall use U.S. EPA Method 24 to determine the VOC contents of the coatings. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall so notify the Administrator of the U.S. EPA and shall use formulation data for that coating to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24.

g) Miscellaneous Requirements

(1) None.