Ohio Environmental Protection Agency

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

2/25/2016

Certified Mail

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

Brent Bowers
Ball Metal Food Container, LLC - Warner Road
2121 Warner Rd. SE
Canton, OH 44707-2273

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

Facility ID: 1576051610
Permit Number: P0119717
Permit Type: Initial Installation
County: Stark

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, The Canton Repository. 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

Canton City Health Department
420 Market Avenue
Canton, OH 44702-1544

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 Canton City Health Department at (330)489-3385.

Sincerely,

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

Cc: U.S. EPA Region 5*Via E-Mail Notification*
Canton; Pennsylvania; West Virginia

Permit Strategy Write-Up

Overview:

Initial installation of two identical metal sheet printing lines and two metal sheet coating lines, one of which is a single-side coating line, and the other is a tandem coating line that can coat either one side or both sides of a sheet during a given run. The printed and/or coated sheets will later be used to produce metal cans.

The printing lines are described as lithographic, heatset printing lines that use UV-cured, high-solids inks (very low-VOC) and also include a post-printing overvarnish coating operation (also high solids/very low-VOC). Solvent and water-based washes (blanket, press, and varnish washes) are used on the printing line, and acetone is used for equipment cleaning. All organic compound emissions (OC, VOC, HAP-TAC) are uncontrolled.

The coating lines use solvent-based coatings and cleaning materials. HAPs include ethyl benzene, glycol ethers, and xylene. Organic compound emissions from the coating lines are controlled by integral thermal oxidizers *designed* to achieve 98% destruction, although the permit will allow for a minimum overall control efficiency of 97%.

The facility will remain a non-Title V facility through facility-wide synthetic minor limits of 9.9 tpy for individual HAPs, 24.9 tpy for total HAPs, and 99.0 tpy for VOC.

1. **Key Items:**

   ✓ Initial installation PTIO for emissions units K053, K054, K055, and K056.

   ✓ Federally Enforceable PTIO (i.e., FEPTIO) with facility-wide synthetic minor restrictions to avoid Title V and MACT requirements from 40 CFR Part 63, Subpart KKKK.*See Note 1.1 below.*

   Notes:

   1.1 The Facility-Wide Terms and Conditions (Section B) in the present permit (P0119717) carry over the same emissions limits from FEPTIO No. P0103959, issued 2/11/2015, but the T&Cs will now also include the four new EUs, K053-K056. The present permit does not supersede P0103959, because nothing has changed at the EU-level for those EUs contained in that permit that are still operating, which at the time of the present permit's issuance include the following: K020, K021, K028, K030, K041, K045, K046, K047, K048, K049 It must be emphasized that the Emissions Unit Terms and Conditions (Section C) in P0103959 are still applicable, and the facility-wide emissions limits from that permit have been carried over into the present permit, although with slight increases from 9.0 to 9.9 tpy for individual HAPs and 24.0 to 24.9 tpy for total HAPs, but the same 99.0 tpy for VOC.

2. **Source Description and Permit Overview:** Ball Metal Food Container, LLC - Warner Road is an existing non-Title V facility located in the City of Canton. Its operations are described by NAICS Code 332431, Metal Can Manufacturing. The company operates a similar facility called the Brookline Plant in Summit County (Facility ID 1677000223). At the time of this permit's issuance, the Warner Road facility has the following existing emissions units:

   - The following 9 emissions units are each permitted by a Registration Status PTO:

     B001–B008: Small natural gas-fired office and plant heaters, each < 10 mmBtu/hr.
     F001: Paved roadways and parking areas.

- The following 10 emissions units were divided into the following groups for the purpose of FEPTIO P0103959, issued 2/11/2015:

1. Water-Based End Liner Group

K028	Line 201 End Liner
K047	Line 200 End Liner

2. Solvent-Based End Liner Group

K020	Line 203 End Liner
K045	Line 205 End Liner & Converter (EZ-Open End Mfg. Line)

3. Conversion Press Group

K021	Line 203 Conversion Press
K030	Line 201 Conversion Press
K048	Line 200 Conversion Press

4. Post-Score Repair Spray Group

K041	Line 201 Post-Score Repair Spray – Uncontrolled
K046	Line 203 Post-Score Repair Spray – Controlled by RTO
K049	Line 200 Post-Score Repair Spray – Controlled by RTO

Also, for reference only, the following three production lines, which included a total of nine emissions units, were permanently shutdown effective February 1, 2015:

Line 206:	K022 - Water-Based End Liner
	K024 - Conversion Press
	K043 - E-Coater Repair
Line 207:	K025 - Water-Based End Liner
	K027 - Conversion Press
	K026 - E-Coater Repair
Line 208:	K015 - Water-Based End Liner
	K016 - Conversion Press
	K040 - Post-Score Repair Spray – Uncontrolled

3. <u>Facility Emissions and Attainment Status:</u> The facility's Permitting Classification is FEPTIO, and the Emissions Reporting Category is SMTV (Synthetic Minor Title V). The facility is located in an attainment area for all criteria pollutants.

4. <u>Source Emissions:</u>

4.1. <u>(for information only) Existing EUs K020, K021, K028, K030, K041, K045, K046, K047, K048, K049</u>

Based on updated data submitted with the current permit application, the maximum *potential-to-emit* for all *existing* emissions units combined is shown below for VOC and HAPs. This includes controlled emissions for K046 and K049 based on a conservative overall control efficiency of 81% for the capture and control (RTO) system. (Note: 81% control is based on OAC rule 3745-21-09(B)(6), not BAT or part of a synthetic minor strategy.)

	<u>(ton/yr)</u>
VOC	57.82*
Total HAPs	7.13

MIBK (HAP) 2.73
xylene (HAP) 3.70
ethyl benzene (HAP) 0.70

*Total VOC includes 57.61 tpy from materials (provided in the permit application) plus conservative estimates from the combustion of natural gas in one 0.4 mmBtu/hr dryer in K049 (0.01 tpy) and in the RTO control device servicing K046 & K049 (0.20 tpy).

It is worth noting that although the facility is currently classified as "synthetic minor to avoid Title V" (ref FEPTIO No. P0103959), the PTE values shown above for the existing EUs demonstrate that if no new sources of emissions were added, the facility would no longer need synthetic minor restrictions to avoid Title V, so its status could be changed to "natural minor." The reduction in PTE from levels that previously exceeded Title V thresholds are due to the shutdown of production lines 206, 207 and 208 (a total of 9 EUs) as mentioned in section 2. above, and also from a change in cleanup solvent from xylene to MIBK for EUs K046 and K049.

4.2. New EUs K053 & K054: UV-Cured Printing Lines

Both the UV-cured inks and the UV-cured overvarnish coating used on the printing lines are very low-VOC, about 1% by weight, but the potential annual usage amounts are high enough that VOC emissions are not negligible. Also, all of the VOC in the overvarnish coating is ethyl benzene, which is both a HAP and an Ohio Toxic Air Contaminant (TAC). Maximum potential emissions of ethyl benzene are 2.0 ton/yr. Solvent and water-based washes (blanket, press, and varnish washes) are used on the printing line, and acetone is used for equipment cleaning. All organic compound emissions (OC, VOC, HAP-TAC) are uncontrolled.

4.3. New EUs K055 & K056: Metal Sheet Coating Lines

VOC and HAP emissions will be released from the coatings used in these emissions units. During equipment cleaning, only VOCs will be released, but not HAPs. Each coating operation, including the associated drying oven, will be enclosed in a Permanent Total Enclosure (PTE) that vents through the oven into ductwork, then into a dedicated natural gas-fired thermal oxidizer (TOX). The enclosures will achieve nearly 100% capture of emissions from coating materials, but during equipment cleaning operations, VOC emissions will be captured at an estimated minimum of 75% because the enclosure doors will be partially open.

4.4. New EUs K055 & K056: Emissions from the Combustion of Natural Gas

Natural gas is used as an auxiliary fuel in the thermal oxidizer (TOX) control devices servicing emissions units K055 (one TOX) and K056 (two TOXs). As an operational restriction, natural gas is the only fuel permitted for use. Potential emissions were initially calculated based on an overly conservative assumption of 8760 hr/yr. However, following a conference call discussion on 2/4/2016 with the facility, the permit writer reduced the maximum annual operating hours for the TOXs to 5256 hrs for the purpose of calculations based on an engineering estimate (still conservatively high) that the burners would operate no more than 60% of the time on an annual basis; i.e., 0.60 x 8760 = 5256. See permit file for more details. Based on these assumptions, the potential emissions of NOx and CO are each over 1.0 tpy, so these were included in the PTE summary below. Potential emissions of NMHC (VOC) are 0.17 tpy for K055 and 0.35 tpy for K056. These amounts were added to the potential VOC emissions from coatings and cleaning materials in the summaries below.

4.5. Potential-to-Emit Summaries for the New EUs:

Printing Lines 1 & 2 (K053 & K054) *each*, based on 8760 hr/yr
(See permit file for details)

	(lb/hr)	(ton/yr)[1]
OC	6.72	29.4
VOC	2.28	10.0
Total HAPs	0.46	2.0
Highest 1-HAP[2]	0.46	2.0

1. All emissions from the Printing Lines are uncontrolled.
2. Ethyl benzene in the overvarnish is the only HAP. 0.32 stk + 0.14 fug. = 0.46 lb/hr total from each line.

Coating Line 1 (Single Coating Line, K055) based on 8760 hr/yr except N-gas combust. 5256 hr:
(See permit file for details)

	Before Controls (lb/hr)	After 97% Control[1,2] (lb/hr)	After 97% Control[1,2] (ton/yr)
NOx	1.20	1.20	3.15
CO	1.01	1.01	2.65
OC	387.26	12.83	56.1 (incl. 0.07 lb/hr& 0.17 tpy from N-gas combust.)
VOC	387.26	12.83	56.1 (incl. 0.07 lb/hr& 0.17 tpy from N-gas combust.)
Total HAPs	141.55	4.25	18.6
Highest 1-HAP[3]	120.55	3.62	15.9

Coating Line 2 (Tandem Coating Line, K056) based on 8760 hr/yr except N-gas combust. 5256 hr:
(See permit file for details)

	Before Controls (lb/hr)	After 97% Control[1,2] (lb/hr)	After 97% Control[1,2] (ton/yr)
NOx	2.40	2.40	6.3
CO	2.02	2.02	5.3
OC	774.51	25.65	112.2 (incl. 0.13 lb/hr& 0.35 tpy from N-gas combust.)
VOC	774.51	25.65	112.2 (incl. 0.13 lb/hr& 0.35 tpy from N-gas combust.)
Total HAPs	283.10	8.50	37.2
Highest 1-HAP[3]	241.10	7.24	31.8

Notes for Coating Lines 1 & 2:

1. NOx, CO emissions from combustion of natural gas in the thermal oxidizer(s) are not further controlled.
2. Control for OC-VOC-HAPs based on 97% minimum overall control for the coating process (e.g., 99% control x 98% capture, or any combination equaling 97%), but during the cleaning process, overall control is reduced to approx. 73.5% because capture is estimated to be only 75%. The totals above take into account the reduced capture of emissions from cleaning materials.
3. Glycol ethers (categorized as one HAP) in the coating is the highest potential individual HAP.

4.6. Facility-Wide PTE Summary *AFTER CONTROLS* for VOC and HAPs from coating-related materials only (i.e., excluding natural gas combustion):

The following summary is presented for the purpose of showing the need for synthetic minor restrictions in order for the facility to avoid Title V permitting requirements. The summary is based on 8760 hr/yr operation of all emissions units at maximum capacity and also based on coatings having the highest VOC or HAP content for K055 & K056, 81% overall control efficiency for K046 & K049, and 97% overall control efficiency for K055 & K056.

	Facility-Wide PTE After Controls: (ton/yr)
VOC	245.4
Total HAPs	66.9
Highest 1-HAP[1]	47.7

1. Glycol ethers (categorized as one HAP) is the highest potential individual HAP. It is used only in the coatings for new EUs K055 & K056.

5. Conclusions:

5.1. Synthetic Minor Terms & Conditions:

(to avoid Title V permitting requirements and MACT applicability under 40 CFR part 63, subpart KKKK,National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans.)

As shown in section 4.6 above, the facility-wide potential-to-emit, after controls, exceeds the Title V threshold for VOC, total HAPs and at least one individual HAP. In the permit application for the four new EUs (K053-K056) and follow-up discussions, the permittee requested that the existing facility-wide synthetic minor emissions limitations be retained from FEPTIO No. P0103959, issued 2/11/2015, except for slight increases from 9.0 to 9.9 tpy for individual HAPs and 24.0 to 24.9 tpy for total HAPs, but the same 99.0 tpy for VOC, each based on a rolling, 12-month summation of the monthly emissions. The facility will continue to manage their rolling 12-month material throughput as necessary in order to stay within the synthetic minor limitations, e.g., by adjusting or limiting production rates among all contributing emissions units.

Also, as part of the synthetic minor strategy, the permittee has requested voluntary restrictions for the overall control efficiencies for the two new coating lines. K055 has one coating & drying operation with a dedicated thermal oxidizer (TOX). K056 has two tandem coating & drying operations, each with its own dedicated TOX. The voluntary restrictions call for 97% minimum overall control efficiency and natural gas to be used as the only auxiliary fuel in the TOXs. Each coating operation will be contained within a permanent total enclosure (PTE). Initial performance testing and retesting every 5 years will be required to certify 100% capture for the PTEs according to Method 204, and to demonstrate compliance regarding the control (destruction) efficiency of each TOX. Actual destruction efficiency is expected to be higher than 97%, and it will be the actual efficiency, as measured during the most recent performance test, that will be used to calculate VOC and HAP emissions based on material content data and usage records. The same is true for existing EUs K046 & K049, which are controlled by the facility's existing RTO.

For all of the controlled EUs, ongoing compliance with the performance-test-based control efficiency values will be demonstrated through operational restrictions, monitoring, and recordkeeping requirements contained in the permit.

The new coating lines (K055 & K056) have the highest potential-to-emit, even after controls. The maximum available production levels (on a rolling 12-month basis) for these EUs is highly dependent upon their actual control efficiency values and the resulting calculated emissions of glycol ether, an individual HAP that will be emitted only from these two EUs. Secondarily, the maximum available production levels for all EUs facility-wide is dependent upon actual control efficiency values for the four controlled EUs and the resulting calculated emissions of VOC. Feasibility studies comparing different facility-wide operating scenarios (i.e., production schedules) for the existing and new emissions units are included as a separate attachment to the permit file. These studies were performed by the permit writer for demonstration purposes only in order to explore the extent to which production *might* have to be limited in order for the facility to continue avoiding Title V permitting requirements. Permit No. P0119717 itself contains no limitations on production levels or operating hours. These feasibility studies demonstrate the facility will be able to operate these new EUs and still be able to comply with the facility-wide emission limitations.

5.2. Special comments regarding VOC emissions from the combustion of natural gas:

By setting the synthetic minor emissions limit for VOC at 99.0 tpy and basing compliance on material content data and usage recordkeeping, there remains up to a 1.0 tpy cushion available for the facility to stay below the 100 tpy Title V threshold. This cushion safely covers the small amounts of VOC emitted from the combustion of natural gas in one drying oven (K049), the existing RTO servicing K046 & K049, and three new thermal oxidizers servicing new EUs K055 & K056. The potential-to-emit VOC from each of these sources is estimated as follows, based on conservatively high assumptions:

K049 drying oven	0.01 tpy
K046 & K049 RTO	0.20 tpy
K055 TOX	0.17 tpy
K056 TOX1 & TOX2	0.35 tpy
Total	0.73 tpy

6. Additional notes or comments:

Performance test timing for EUs with TOX control devices (K055 & K056):

The primary purposes of the testing are to confirm that each coating operation (one operation for K055 two operations for K056) meets the 97% minimum overall control requirement established in the permit.

Another purpose of the testing is to establish the minimum acceptable average combustion temperature for each TOX, defined as 50 degrees Fahrenheit below the average combustion temperature during the performance tests. Still another purpose of the testing is to establish the actual overall control efficiency for each TOX that will be used in emissions calculations.

The timing requirement for initial performance testing was specified in the permit as “within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.” This was not based on a specific rule, but is very typical for this type of emissions unit/control device. If 97% control was only a designed-for BAT requirement (pursuant to SB 265/ORC 3704.03(T)), then the permit would require only initial, one-time performance testing. But because it is part of the federally enforceable synthetic minor restrictions, repeat performance testing will be required every 5 years. The 5-year timing for retesting will be based on the actual date of the initial testing. There is intentionally no direct relationship between the timing of retesting and the issue date of future renewal permits. The 5-year frequency was based on Engineering Guide 16, Figure I, as proposed for revision in a draft dated 10/12/2015.

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

Pollutant	Tons Per Year
VOC	99.0
Total combined HAPs	24.9
Any individual HAP	9.9

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 Initial Installation
Ball Metal Food Container, LLC - Warner Road
2121 Warner Road SE,, Canton, OH 44707
ID#:P0119717
Date of Action: 2/25/2016
Permit Desc:Initial installation of two (2) ultraviolet-cure metal sheet printing lines and two (2) metal sheet coating lines. Organic compound emissions from the coating lines are controlled by thermal oxidizers. The facility will remain a non-Title V facility through facility-wide synthetic minor limits of 99.0 tpy VOC, 24.9 tpy total HAPs, and 9.9 tpy of any individual HAP..
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: Carl Safreed, Canton City Health Department, 420 Market Avenue, Canton, OH 44702-1544. Ph: (330)489-3385

DRAFT

Division of Air Pollution Control
Permit-to-Install and Operate
for
Ball Metal Food Container, LLC - Warner Road

Facility ID:	1576051610
Permit Number:	P0119717
Permit Type:	Initial Installation
Issued:	2/25/2016
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
Ball Metal Food Container, LLC - Warner Road

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Authorization

Facility ID:	1576051610
Application Number(s):	A0054182
Permit Number:	P0119717
Permit Description:	Initial installation of two (2) ultraviolet-cure metal sheet printing lines and two (2) metal sheet coating lines. Organic compound emissions from the coating lines are controlled by thermal oxidizers. The facility will remain a non-Title V facility through facility-wide synthetic minor limits of 99.0 tpy VOC, 24.9 tpy total HAPs, and 9.9 tpy of any individual HAP.
Permit Type:	Initial Installation
Permit Fee:	$4,000.00*DO NOT send payment at this time, subject to change before final issuance*
Issue Date:	2/25/2016
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:

Ball Metal Food Container, LLC - Warner Road
2121 Warner Road SE
Canton, OH 44707

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:

Canton City Health Department
420 Market Avenue
Canton, OH 44702-1544
(330)489-3385

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: P0119717
Permit Description: Initial installation of two (2) ultraviolet-cure metal sheet printing lines and two (2) metal sheet coating lines. Organic compound emissions from the coating lines are controlled by thermal oxidizers. The facility will remain a non-Title V facility through facility-wide synthetic minor limits of 99.0 tpy VOC, 24.9 tpy total HAPs, and 9.9 tpy of any individual HAP.

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

Emissions Unit ID:	**K053**
Company Equipment ID:	UV Printing Line 1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**K054**
Company Equipment ID:	UV Printing Line 2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**K055**
Company Equipment ID:	Single Sheet Coater Line 1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**K056**
Company Equipment ID:	Tandem Sheet Coater Line 2
Superseded Permit Number:	
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 Canton City Health Department 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:

      2. – Selected definitions.

   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.

      3. - Applicable Facility-Wide Emissions Limitations and/or Control Requirements;

      5. - Monitoring and/or Recordkeeping Requirements; and

      6.b). - Quarterly deviation reporting requirements.

2. Selected definitions, as used in this permit:

   As-applied: the formulation of a coating during the application on, or impregnation into a substrate, including any dilution solvents or thinners [or other components] added at the source before application of the coating. [OAC rule 3745-21-01(D)]

   As-received: the formulation of a coating material or component (e.g., one-part coatings, each component of two-part coatings, thinners, reducers, and other additives) as received from the supplier. As-received is equivalent to “as-purchased.”

   Basecoat: for can coating lines, the exterior base coating of a two-piece can or the exterior and interior base coating of a three-piece can or three-piece can end. [OAC rule 3745-21-01(D)]

   Cleaning material or cleanup material: a solvent used to remove contaminants and other materials such as dirt, grease, oil, and dried (e.g., depainting) or wet coating from a substrate before or after coating application; or from equipment associated with a coating operation, such as spray booths, spray guns, tanks, and hangers. Thus, it includes any cleaning material used on substrates or equipment or both. [OAC rule 3745-21-01(D)]

   Coating or surface coating: a material applied onto or saturated within a substrate for decorative, protective or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealers, adhesives and inks. [OAC rule 3745-21-01(D)]

   Coating line: an operation consisting of a series of one or more coating applicators and any associated flash-off areas, drying areas and ovens wherein a surface coating is applied, dried, and/or cured. It is not necessary for an operation to have an oven, or flash-off area, or drying area in order to be included within this definition. [OAC rule 3745-21-01(D)]

   Excluding water and exempt solvents means subtracting the volume (or volume fraction) of water and other volatile materials which are not VOC (and thus are known as “exempt solvents”) from the total volume of a coating material. [Adapted from OAC rule 3745-21-01(D)].

Exempt solvent: 1. volatile matter in a coating or cleaning material other than VOC or water. [OAC rule 3745-21-10(B)(5)] 2. any of the compounds that are specifically identified as *not* being "volatile organic compounds" under the definition of "volatile organic compound" in paragraph (B) of OAC rule 3745-21-01.

Hazardous air pollutant (HAP): any air pollutant listed under Section 112(b) of the Clean Air Act (USC Section 7412).

Ink: a coating applied by a roll printer. [OAC rule 3745-21-01(D)]

Interior base coating: a coating applied to the interior of a can. [OAC rule 3745-21-01(D)]

Interior body coating: a coating applied subsequent to the application of an interior base coating to the interior of a can. [OAC rule 3745-21-01(D)]

Lithographic printing line: a printing line, except that the substrate is not necessarily fed from an unwinding roll, in which each roll printer uses a roll where both the image and nonimage areas are essentially in the same plane (planographic). [OAC rule 3745-21-01(D)]

Offset lithographic printing line: a lithographic printing line where the image is applied from a plate roll to an intermediate (blanket) roll and then transferred onto the substrate. [OAC rule 3745-21-01(D)]

Organic compound (OC): any chemical compound containing carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, metallic carbonates, ammonium carbonate, methane (except methane from landfill gases), and ethane. [OAC rule 3745-21-01(B)]

Overvarnish: a surface coating applied directly over ink on the exterior of a can. [OAC rule 3745-21-01(D)]

Permanent total enclosure (PTE): a permanently installed enclosure that meets the criteria for a PTE in accordance with U.S. EPA method 204 specified within paragraph (C)(3)(c) of rule 3745-21-10 of the Administrative Code, and that directs all the exhaust gases from the enclosure to a control device. [OAC rule 3745-21-01(X)]

Solids: all nonvolatile matter in a coating material. Percent solids + percent volatile matter = 100%.

Toxic Air Contaminant (TAC): an air contaminant that has been identified by the Ohio EPA as having known toxicological effects, pursuant to ORC 3704.03(F)(3)(c). The complete list of toxic air contaminants regulated in Ohio can be found in OAC rule 3745-114-01.

Volatile matter: all non-solid matter in a coating material, including water. Percent solids + percent volatile matter = 100%.

Volatile organic compounds (VOC): a subset of organic compounds that participate in atmospheric photochemical reactions. Organic compounds that are specifically identified as *not* being "volatile organic compounds" are listed under the definition of "volatile organic compound" in paragraph (B) of OAC rule 3745-21-01. When used in coating or cleaning materials, those compounds in the list just described are known as "exempt solvents."

3. Applicable Facility-Wide Emissions Limitations and/or Control Requirements

a) The following applicable rules and/or requirements and applicable emissions limitations and/or control measures apply to the following 14 emissions units combined: K020, K021, K028, K030, K041, K045, K046, K047, K048, K049, K053, K054, K055, and K056. The combined emissions from these units 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(D)(1) [Synthetic Minor restrictions to avoid Title V applicability and MACT applicability under 40 CFR Part 63, Subpart KKKK]	Emissions of any individual hazardous air pollutant (HAP) shall not exceed 9.9 tons per year, based upon a rolling 12-month summation of the monthly emissions. Emissions of all hazardous air pollutants (HAPs) combined shall not exceed 24.9 tons per year, based upon a rolling 12-month summation of the monthly emissions. Emissions of volatile organic compounds (VOC) shall not exceed 99.0tons per year (tpy), based upon a rolling 12-month summation of the monthly emissions.

b) Additional Terms and Conditions

(1) None.

4. Operational Restrictions

a) None.

5. Monitoring and/or Recordkeeping Requirements

a) The permittee shall collect and record the following information each month for all materials containing any hazardous air pollutant (HAP) and/or volatile organic compound (VOC)* that are employed in any of the following emissions units: K020, K021, K028, K030, K041, K045, K046, K047, K048, K049, K053, K054, K055, and K056:

* As described in the Definitions above (see *exempt solvents, organic compounds* and *volatile organic compounds*), some materials contain "exempt solvents," which are organic compounds (OCs) that have been identified as being exempt from the definition of "VOC" for regulatory purposes because they do not participate in photochemical reactions. A common example of an exempt solvent is acetone, which is used as a thinner and/or cleaning material for some types of coatings.

Only the subset of total organic compounds (OCs) that are defined as VOCs are included in the definition of "regulated air pollutant" in OAC rule 3745-77-01 for the purpose of Title V major source applicability. Because of this, recordkeeping is required only for VOCs in order to demonstrate compliance with the synthetic minor restriction in 3.a)(1) above. However, as described in term A.4 of the Standard Terms and Conditions of this permit, there is a rule-based requirement in OAC Chapter 3745-78 for the permittee to report the actual emissions of total OCs on an annual basis for the purpose of emissions fees. For this reason, it is highly recommended that the permittee maintain records of the OC content and usage-based OC emissions for all OC-containing materials along with the recordkeeping required below for all HAP-containing and VOC-containing materials. This may include the need to keep records for some OC-containing materials that contain only exempt solvents (i.e., zero VOCs).

(1) the name and/or identification number of each HAP-containing and VOC-containing material employed (examples of material types include, but are not limited to: protective or decorative surface coatings, end-sealing compounds, post-score repair coatings, thinners, tab lubricants, rust inhibitors, printing inks applied to metal, and cleaning materials, including blanket, press, and varnish washes);

(2) the name and CAS No. of each individual HAP contained in each material identified in (1) above, and the content, in pounds per gallon, of each individual HAP in each such material, as applied, calculated in accordance with the procedure described for $C_{HAP,i}$ in 8.a) below, under Miscellaneous Requirements;

(3) the actual VOC content, in pounds per gallon as applied, of each material identified in (1) above, calculated in accordance with the procedure described for $C_{VOC,1}$ in 8.b) below, under Miscellaneous Requirements;

(4) for each emissions unit, the number of gallons employed during the month of each material identified in (1) above that contains any HAP or more than zero VOC (in the case of cleanup materials, the number of gallons employed shall mean the net number of gallons, defined as the gross number of gallons employed during the month minus the number of gallons recovered and/or sent off-site for disposal during the month);

(5) for each emissions unit, the monthly emissions of each individual HAP, in pounds or tons, to be calculated as follows:

a. For each **uncontrolled** emissions unit, multiply the number of gallons of each HAP-containing material employed during the month from (4) above by the content in lb/gal of each HAP contained in the material from (2) above. Then, for each individual HAP, sum the results for all materials containing that specific HAP (and employed in this emissions unit) to get the total emissions of each HAP, in pounds (or divide by 2000 pounds per ton if recording in tons at this point).

b. For each **controlled** emissions unit, repeat the steps in the paragraph above, then multiply the result for each HAP by 1 minus the overall control efficiency (expressed as a decimal fraction) for the control system that was determined during the most recent performance test that demonstrated the emissions unit was in compliance.

(6) for each emissions unit, the emissions of all HAPs combined, in pounds or tons, to be calculated as the sum of all the individual HAP emissions from either (5)a. or (5)b. above, whichever is applicable;

(7) for each emissions unit, the monthly VOC emissions, in pounds or tons, to be calculated as follows:

a. For each **uncontrolled** emissions unit, multiply the number of gallons of each VOC-containing material employed during the month from (4) above by the actual VOC content in lb/gal from (3) above. Then sum the results for all VOC-containing materials employed in this emissions unit to get the total emissions of VOC, in pounds (or divide by 2000 pounds per ton if recording in tons at this point).

b. For each **controlled** emissions unit, repeat the steps in the paragraph above, then multiply the result by 1 minus the overall control efficiency (expressed as a decimal fraction) for the control system that was determined during the most recent performance test that demonstrated the emissions unit was in compliance.

(8) the facility-wide monthly emissions of each individual HAP, in tons, i.e., the summation of the individual HAP emissions for each emissions unit from (5)a. and (5)b. above for all emissions units combined (if necessary, convert from pounds to tons by dividing by 2000 pounds per ton);

(9) the facility-wide monthly emissions of all HAPs combined, in tons, i.e., the summation of the emissions of all HAPs combined for each emissions unit from (6) above for all emissions units combined (if necessary, convert from pounds to tons by dividing by 2000 pounds per ton);

(10) the facility-wide monthly VOC emissions, in tons, i.e., the summation of the VOC emissions for each emissions unit from (7)a. and (7)b. above for all emissions units combined (if necessary, convert from pounds to tons by dividing by 2000 pounds per ton);

(11) the facility-wide rolling, 12-month summation of emissions of each individual HAP, in tons, i.e., the summation of the facility-wide monthly emissions of each individual HAP from (8) above for the most recent month and the previous 11 months;

(12) the facility-wide rolling, 12-month summation of all HAPs emissions combined, in tons, i.e., the summation of the facility-wide monthly emissions of all HAPs combined from (9) above for the most recent month and the previous 11 months; and

(13) the facility-wide rolling, 12-month summation of VOC emissions, in tons, i.e., the summation of the facility-wide monthly VOC emissions from (10) above for the most recent month and the previous 11 months.

Emissions units K020, K021, K028, K030, K041, K045, K046, K047, K048, and K049 have been in operation for more than 12 months. Therefore, the permittee has existing records to generate the facility-wide rolling 12-month summation of the monthly emissions upon issuance of this permit. After each of the new emissions units contained in this permit (K053, K054, K055, and

K056) begins operating, the monthly emissions for each will be added to the facility-wide totals as described above.

6. Reporting Requirements

a) 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.

b) The permittee shall submit quarterly deviation (excursion) reports for the following emissions units that identify:

(1) all deviations (excursions) of the following emissions 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:

Emissions Unit ID	Term & Condition
K020, K021, K028, K030, K041, K045, K046, K047, K048, K049, K053, K054, K055, and K056	a. – c. below

a. all exceedances of the facility-wide rolling, 12-month individual HAP emission limitation of 9.9 tons as recorded in 5.a)(11) above;

b. all exceedances of the facility-wide rolling, 12-month total combined HAPs emission limitation of 24.9 tons as recorded in 5.a)(12) above; and

c. all exceedances of the facility-wide rolling, 12-month VOC emission limitation of 99.0 tons as recorded in 5.a)(13) above.

Also, for Emissions Unit IDs	Term & Condition
K046, K049, K055, and K056:	For K046 and K049, see the Emissions Unit Terms and Conditions in permit No. P0103959, Post-Score Repair Spray Emissions Unit Group, for additional quarterly deviation reporting requirements.

For K055 and K056, see the Emissions Unit Terms and Conditions in this permit, Metal Sheet Coating Lines Emissions Unit Group, for additional quarterly deviation reporting requirements.

(2) the probable cause of each deviation (excursion);

(3) any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and

(4) the magnitude and duration of each deviation (excursion).

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

The quarterly reports shall be submitted each year by January 31 (covering October - December), April 30 (covering January - March), July 31 (covering April - June), and October 31 (covering July - September), unless an alternative schedule has been established and approved by the Canton City Health Department, Air Pollution Control Division.

7. Testing Requirements

a) Compliance with the emission limitations and/or control requirements specified in section 3. of these facility-wide terms and conditions shall be determined in accordance with the following methods :

(1) Emission Limitation:

Emissions of any individual Hazardous Air Pollutant (HAP) shall not exceed 9.9 tons per year, based upon a rolling, 12-month summation of the monthly emissions from emissions units K020, K021, K028, K030, K041, K045, K046, K047, K048, K049, K053, K054, K055, and K056 combined.

Applicable Compliance Method:

Compliance shall be based on the recordkeeping found in term 5.a)(11) above.

(2) Emission Limitation:

Emissions of all Hazardous Air Pollutants (HAPs) combined shall not exceed 24.9 tons per year, based upon a rolling, 12-month summation of the monthly emissions from emissions units K020, K021, K028, K030, K041, K045, K046, K047, K048, K049, K053, K054, K055, and K056 combined.

Applicable Compliance Method:

Compliance shall be based on the recordkeeping found in term 5.a)(12) above.

(3) Emission Limitation:

Emissions of volatile organic compounds (VOC) shall not exceed 99.0 tons per year, based upon a rolling, 12-month summation of the monthly emissions from emissions units K020, K021, K028, K030, K041, K045, K046, K047, K048, K049, K053, K054, K055, and K056 combined.

Applicable Compliance Method:

Compliance shall be based on the recordkeeping found in term 5.a)(13) above.

8. Miscellaneous Requirements

Values for material properties required in a) and b) below shall be determined either by the procedures set forth in U.S. EPA Method 24* or from formulation data provided by the manufacturer of the material, except for individual HAP, individual TAC, and exempt solvents information that can *only* be obtained from formulation data.

* Method 24, as described in 40 CFR Part 60, Appendix A, is applicable for the determination of volatile matter content, water content, density, volume solids, and weight solids of paint, varnish, lacquer, or other related surface coatings.

a) The following method shall be used to calculate the individual HAP content, in pounds per gallon, for each individual HAP in each HAP-containing material:

$C_{HAP,\,i} = (D)(W_{HAP,\,i})$

where:

D = the overall density of the material, in pounds per gallon.

$W_{HAP,\,i}$= the weight fraction of the individual HAP "i" in the material

b) The following method shall be used to calculate the actual VOC content ($C_{VOC,1}$), in pounds per gallon, of each VOC-containing material:

$C_{VOC,1} = (D)(W_{VOC})$ *See Notes 1. and 2. below*

where:

D = the overall density of the material, in pounds per gallon.

W_{VOC} = the weight fraction of VOC in the material, in pounds of VOC per pound of material.

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

where:

W_{VM} = the weight fraction of volatile matter in the material, in pounds of volatile matter per pound of material.

[For coatings, if this weight fraction is determined by ASTM D2369-04, "Standard Test Method for Volatile Content of Coatings," the drying conditions shall be one hundred ten degrees Celsius for one hour, except where otherwise authorized by the director based on an alternate analytical procedure that is satisfactorily demonstrated to the director by the coating manufacturer to be more representative of the actual cure mechanism of the coating.]

W_W = the weight fraction of water in the material, in pounds of water per pound of material.

W_{ES} = weight fraction of exempt solvents in the material, in pounds of exempt solvents per pound of material.

Notes for 8.b):

1. For coatings, if the "as-applied" value is required for $C_{VOC,1}$, this will be the same as the "as-received" value only for the case of one-part coatings that are applied without the addition of any thinner, reducer or other additive. For all other cases, see Note 2.

2. For one-part coatings that are thinned or reduced before application (including dilution with water), and for all two-part coatings (which may also include thinners, reducers or other additives), the "as-applied" value for $C_{VOC,1}$ must be calculated as a volume-weighted average for the coating mixture, in which case the applicable parameter shall be identified as $(C_{VOC,1})_{MIX}$. The following formula shall be used to calculate $(C_{VOC,1})_{MIX}$:

$$(C_{VOC,1})_{MIX} = \sum_{i=1}^{n} (V_i)\,(C_{VOC,1i})$$

where:

i = subscript denoting a specific material in the coating mixture.

n = the total number of different materials in the coating mixture.

V_i = the volume fraction of each material "i" in the coating mixture, based on the volumetric mix ratio.

Individual parameter values must be calculated or obtained for each material "i" in the coating mixture.

C. Emissions Unit Terms and Conditions

1. Emissions Unit Group – UV-Cured Printing Lines: K053 and K054

EU ID	Operations, Property and/or Equipment Description
K053	UV Printing Line 1
K054	UV Printing Line 2

Metal sheet lithographic, heatset printing lines using UV-cured, high-solids inks. KBA MetalStar 3 with six ink stations followed by a UV-cured overvarnish coating unit. Solvent and water-based washes (blanket, press, and varnish washes) are used on the printing line, and acetone is used for equipment cleaning. Emissions are uncontrolled.

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)(2) – d)(5), and e)(3)a.

(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)a.

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(D) June 30, 2008 [Synthetic Minor restrictions to avoid Title V applicability and MACT applicability under 40 CFR Part 63, Subpart KKKK]	Synthetic minor restrictions for the emissions units in this Emissions Unit Group have been incorporated into Section B, Facility-Wide Terms and Conditions.
b.	ORC 3704.03(T) OAC rule 3745-31-05(A)(3) June 30, 2008 [Best Available Technology (BAT)]	The inks and coatings employed in the emissions units in this Emissions Unit Group shall have a VOC content less than or equal to 10% by weight, as applied.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rules 3745-21-09(D)(1) and/or (D)(2) [Surface Coating of Cans]	The VOC emissions limitations specified by these rules are less stringent than the limitation established pursuant to ORC 3704.03(T) and OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-11 [Restrictions on particulate emissions from industrial processes]	Exempt pursuant to paragraph (A)(1)(h) of this rule because the processes for this Emissions Unit Group are surface coating processes that applies only roll coatings.
e.	ORC 3704.03(F)(4) OAC rule 3745-114-01 [Toxic Air Contaminants]	See d)(2) – d)(5), and e)(3)a. below.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) For each emissions unit in this Emissions Unit Group, the permittee shall collect and record the following information each month:

a. the name and/or identification number of each material employed (examples of material types include, but are not limited to: protective or decorative surface coatings, printing inks applied to metal, and cleaning materials, including blanket washes, press washes, and varnish washes). [This is a partial duplication of a requirement in paragraph 5.a)(1) in Section B. of this permit. The difference here is the requirement to keep records for all materials employed, including any that may contain zero VOCs.];

b. the actual VOC content in pounds per gallon for each material identified in "a" above, calculated in accordance with the procedure described for $C_{VOC,1}$ in Section B. of this permit, Facility-Wide Terms and Conditions, paragraph 8.b) [duplication of a requirement in paragraph 5.a)(3) in Section B. of this permit]; and

c. the number of gallons employed during the month of each material identified in "a" above (in the case of cleaning materials, the number of gallons employed shall mean the net number of gallons, defined as the gross number of gallons employed during the month minus the number of gallons recovered and/or sent

off-site for disposal during the month) [duplication of a requirement in paragraph 5.a)(4) in Section B. of this permit].

Except for the difference described in "a" above, the requirements in "a" – "c" above are included in the Monitoring and/or Recordkeeping Requirements in Section B. of this permit, Facility-Wide Terms and Conditions, and need not be kept as separate or redundant records for this Emissions Unit Group.

(2) The permit-to-install (PTI) applications for emissions units K053, K054, K055 and K056 were evaluated based on the actual materials and the design parameters of each emissions unit's exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute," ORC 3704.03(F)(4), was applied to these emissions units operating simultaneously 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 emitted at over one ton per year for emissions units K053, K054, K055 and K056 combined 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 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 air contaminant emitted from emissions units K053, K054, K055 and K056 combined, (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 was divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard was then adjusted to account for the duration of the exposure or the maximum potential operating hours of the emissions units, i.e., 24 hours per day and 7 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) x (8/24) x (5/7) = (4)(TLV)/(24)(7) = MAGLC

d. For emissions units K053, K054, K055 and K056 combined, the significant toxic air contaminants, defined as having potential emissions of 1 or more tons/year, are ethyl benzene, xylene, and glycol ethers. The following two tables summarize the results of dispersion modeling for the significant toxic air contaminants:

Stack Emissions

Toxic Air Contaminant	aximum stack emissions rate, 2 printing and 2 coating lines combined (K053-K056) hr*	TLV-TWA mg/m^3	AGLC (TLV/42) /m^3	edicted 1-hr maximum ground level concentration /m^3
ethyl benzene	39	86.7	2,064	20.1
ene	22	4	,333	.2
glycol ethers**	23	131	3,119	286.7

Fugitive emissions

Toxic Air Contaminant	aximum fugitive emissions rate, based on 2 printing lines combined (K053 & K054) hr*	TLV-TWA mg/m^3	AGLC (TLV/42) /m^3	edicted 1-hr maximum ground level concentration /m^3
ethyl benzene	28	86.7	2,064	267

* Maximum hourly emissions rates are based on the coating with the highest percent by weight of the given toxic air contaminant for each emissions unit. The individual emissions unit values were then summed together to get the combined emissions rate.

**Glycol ethers: butyl cellosolve acetate (CAS No. 112-07-2) and diethylene glycol monobutyl ether acetate (CAS No. 124-17-4). The TLV for butyl cellosolve acetate was used to represent all glycol ether emissions.

The permittee has demonstrated that emissions of toxic air contaminants from emissions units K053-K056 combined are calculated to cause ambient air concentrations that are less than 80% of the maximum acceptable ground-level concentration (MAGLC) for each contaminant. 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)(4).

(3) Prior to making any physical changes to or changes in the method of operation of emissions units K053, K054, K055 or K056 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 or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "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)(4), 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.

(4) 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)(4):

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 air contaminants emitted, change in stack/exhaust parameters, etc.);

b. the maximum acceptable ground-level concentration (MAGLC) for each significant toxic air contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute," ORC 3704.03(F)(4);

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)(4), 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)(4), 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.

(5) The permittee shall maintain a record of any change 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)(4), 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) 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.

(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.

The permittee shall identify in the annual PER the following information:

a. as recorded in d)(5) above, 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)(4), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions, emissions unit(s), or the exhaust stack(s) have been made, then the report shall include an affirmative statement to this effect.

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. Emissions Limitation:

The inks and coatings employed in the emissions units in this Emissions Unit Group shall have a VOC content less than or equal to 10% by weight, as applied.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the recordkeeping requirements specified in d)(1) above.

g) Miscellaneous Requirements

(1) None.

2. Emissions Unit Group – Metal Sheet Coating Lines: K055 and K056

EU ID	Operations, Property and/or Equipment Description
K055	Single-Side Sheet Coater (Coating Line 1) Single-side coating line for metal sheets with an integral thermal oxidizer, rated at 12 mmBtu/hr heat input, that also serves as the only source of heat to the drying oven. The coating line cannot be operated without the thermal oxidizer also operating, and doing so at its minimum set-point temperature.
K056	Tandem Sheet Coater (Coating Line 2) Two-stage coating line that can coat either one side or both sides of metal sheets (i.e., both stages may or may not be applying coatings during a given run). Each of the two stages has an integral thermal oxidizer, each rated at 12 mmBtu/hr heat input, that also serves as the only source of heat to that stage's drying oven. Neither stage can be operated (i.e., coatings cannot be applied) without its thermal oxidizer also operating, and doing so at its minimum set-point temperature. The two stages cannot be operated independently, so this coating line is considered to be one emissions unit.

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., b)(1)g., d)(6) - d)(9), and e)(3)a.

(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)a.

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(D) June 30, 2008 [Synthetic Minor restrictions to avoid Title V applicability and MACT applicability under 40 CFR Part 63,	Synthetic minor restrictions for the emissions units in this Emissions Unit Group have been incorporated into Section B, Facility-Wide Terms and Conditions.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	Subpart KKKK]	For emissions units K055 and K056, the permittee has also requested voluntary restrictions under this rule to control volatile organic compound (VOC) emissions by means of a control system that shall have a minimum overall control efficiency of 97%, by weight, during coating operations. See b)(2)d.–b)(2)e., c)(1)–c)(2), and d)(1)–d)(5) below.
b.	ORC 3704.03(T) OAC rule 3745-31-05(A)(3) June 30, 2008 [Best Available Technology (BAT) for pollutants > 10 tpy]	Volatile organic compound (VOC) emissions shall be controlled by a control system designed for a minimum overall control efficiency of 97%, by weight, during coating operations. These control measures are the same as or less stringent than the control measures established pursuant to OAC rule 3745-31-05(D). See b)(2)d. below.
c.	OAC rule 3745-31-05(A)(3) June 30, 2008 [BAT for pollutants < 10 tpy]	Nitrogen oxides (NOx) emissions shall not exceed 0.263 tons per month for emissions unit K055 and 0.526 tons per month for emissions unit K056, each averaged over a 12-month rolling period. Carbon monoxide (CO) emissions shall not exceed 0.221 tons per month for emissions unit K055 and 0.442 tons per month for emissions unit K056, each averaged over a 12-month rolling period. See b)(2)a., b)(2)b., and c)(1) below.
d.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008 [Provision for less than 10 ton/yr BAT exemption]	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NOx and CO emissions from the emissions units in this Emissions Unit Group, since the calculated potential to emit for each of these pollutants is less than ten tons per year for each emissions unit. See b(2)c. below.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rule 3745-17-11 [Restrictions on particulate emissions from industrial processes]	Exempt pursuant to paragraph (A)(1)(h) of this rule because the process for this Emissions Unit Group is a surface coating process that applies only roll coatings.
f.	OAC rule 3745-21-09(B)(6) [Minimum capture and control requirements in lieu of complying with the VOC content limitations in paragraph (D)(1) and/or (D)(2) of this rule]	The capture and control system shall provide not less than an 81 percent reduction, by weight, in the overall VOC emissions from each of the emissions units in this Emissions Unit Group, and the control (destruction) efficiency of each control device itself shall not be less than 90 percent, by weight, for the VOC emissions vented to it. These control measures are less stringent than the control measures established pursuant to OAC rule 3745-31-05(D), ORC 3704.03(T), and OAC rule 3745-31-05(A)(3).
g.	ORC 3704.03(F)(4) OAC rule 3745-114-01 [Toxic Air Contaminants]	See d)(6) - d)(9), and e)(3)a. below.

(2) Additional Terms and Conditions

a. The monthly emissions limitations for NOx and CO were established to reflect the uncontrolled potential to emit for the emissions units listed above. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with these emissions limitations.

b. The Best Available Technology (BAT) requirements for NOx and CO in b)(1)c. above apply 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).

c. The exemption for NOx and CO described in b)(1)d. above applies 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).

d. The 97%minimum overall control efficiency requirement (synthetic minor restriction and best available technology) for volatile organic compound (VOC) emissions during coating operations shall be met by locating the coating operation(s) of each emissions unit within a permanent total enclosure (PTE) and

by venting all VOC emissions (100% capture) to a thermal oxidizer control device (TOX) as follows:

i. A permanent total enclosure (PTE) shall be constructed to totally enclose each coating operation, including the application station, coating reservoir, and all areas from the application station to the oven and the thermal oxidizer control device. If it can be demonstrated that there is no leakage between the coating application, the oven, and the control device, and that the oven and control device are operated under negative pressure, they do not need to be enclosed; and

ii. Each permanent total enclosure serving emissions units K055 and K056 shall be maintained under negative pressure as required by this permit during coating operations, and shall capture all of the VOC emissions from coating operations (see "e" below regarding equipment cleaning operations). Negative pressure shall be visually monitored using streamers, plastic flow indicating strips, string, or other visually noticeable flow indicating device that shows the direction of air flow through each natural draft opening to be into the enclosure.

e. VOC emissions from equipment cleaning materials shall also be vented to the thermal oxidizer control device associated with each coating operation, but these emissions shall not be subject to the capture requirements in "d" above because of the necessity for enclosure doors to be partially open during cleaning operations. For the purpose of emissions calculations, the permittee shall use 75% capture efficiency for cleaning operations. Performance testing shall not be required to confirm that the actual capture efficiency during cleaning operations is 75% or greater.

c) Operational Restrictions

(1) The permittee shall fire only natural gas as fuel in the thermal oxidizers (TOX) servicing emissions units K055 and K056.

(2) Each permanent total enclosure serving emissions units K055 and K056 shall be maintained under negative pressure during coating operations. Negative pressure shall be visually monitored using streamers, plastic flow indicating strips, string, or other visually noticeable flow indicating device that shows the direction of air flow through each natural draft opening to be into the enclosure.

d) Monitoring and/or Recordkeeping Requirements

(1) For each emissions unit in this Emissions Unit Group, the permittee shall collect and record the following information each month:

a. the name and/or identification number of each material employed (examples of material types include, but are not limited to: protective or decorative surface coatings and cleaning materials). [This is a partial duplication of a requirement in paragraph 5.a)(1) in Section B. of this permit. The difference here is the requirement to keep records for all materials employed, including any that may contain zero VOCs.];

b. the actual VOC content in pounds per gallon for each material identified in "a" above, calculated in accordance with the procedure described for $C_{VOC,1}$ in Section B. of this permit, Facility-Wide Terms and Conditions, paragraph 8.b) [duplication of a requirement in paragraph 5.a)(3) in Section B. of this permit];

c. the number of gallons employed during the month of each material identified in "a" above that contains more than zero VOC (in the case of cleanup materials, the number of gallons employed shall mean the net number of gallons, defined as the gross number of gallons employed during the month minus the number of gallons recovered and/or sent off-site for disposal during the month) [duplication of a requirement in paragraph 5.a)(4) in Section B. of this permit].

Except for the difference described in "a" above, the requirements in "a" – "c" above are included in the Monitoring and/or Recordkeeping Requirements in Section B. of this permit, Facility-Wide Terms and Conditions, and need not be kept as separate or redundant records for this Emissions Unit Group.

(2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average combustion temperature within each TOX, for any 3-hour block of time when the emissions source(s) controlled by the TOX is/are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions source(s) was/were in compliance.

(3) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within each thermal oxidizer (TOX) when the emissions source(s) controlled by the TOX 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 source(s) controlled by each TOX is/are in operation:

a. a log of the operating time for the capture (collection) system, TOX control device, monitoring equipment, and the associated coating line, or in the case of emissions unit K056, the log shall identify which portion(s) of the tandem coating line was/were operating; and

b. all 3-hour blocks of time, when the emissions source(s) was/were in operation, during which the average combustion temperature was more than 50 degrees Fahrenheit below the average combustion temperature measured during the most recent performance test that demonstrated that the emissions source(s) was/were in compliance.

The above recordkeeping requirements are listed pursuant to paragraphs (B)(3)(l) and (B)(3)(n) of OAC rule 3745-21-09, which also require that the records shall be maintained at the facility for a period of three years.

(4) Whenever the monitored average combustion temperature within the TOX deviates from the range or limit established in accordance with this permit (based on a 3-hour block of time, as recorded in d)(3)b. above), 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.

(5) Requirements for permanent total enclosures:

a. The permittee shall perform daily inspections of the permanent total enclosure to ensure that the following conditions are being maintained when the emissions unit is in operation:

i. all access doors and windows that are not natural draft openings are closed; and

ii. the direction of air at each natural draft opening is inward, as shown by streamers, smoke tubes, tracer gases, and/or other air flow monitoring devices.

Records shall be maintained of the results of each daily inspection and shall include any corrective actions taken by the permittee.

(6) The permit-to-install (PTI) applications for emissions units K053, K054, K055 and K056 were evaluated based on the actual materials and the design parameters of each emissions unit's exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute," ORC 3704.03(F)(4), was applied to these emissions units operating simultaneously 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 emitted at over one ton per year for emissions units K053, K054, K055 and K056 combined 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 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 air contaminant emitted from emissions units K053, K054, K055 and K056 combined, (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 was divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard was then adjusted to account for the duration of the exposure or the maximum potential operating hours of the emissions units, i.e., 24 hours per day and 7 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) x (8/24) x (5/7) = (4)(TLV)/(24)(7) = MAGLC

d. For emissions units K053, K054, K055 and K056 combined, the significant toxic air contaminants, defined as having potential emissions of 1 or more tons/year, are ethyl benzene, xylene, and glycol ethers. The following summarizes the results of dispersion modeling for the significant toxic air contaminants:

Toxic Air Contaminant	Maximum stack emissions rate, 2 printing and 2 coating lines combined (K053-K056) lb/hr*	TLV-TWA mg/m^3	MAGLC (TLV/42) $\mu g/m^3$	Predicted 1-hr maximum ground level concentration $\mu g/m^3$
ethyl benzene	0.89	86.7	2,064	20.1
xylene	1.22	434	10,333	48.2
glycol ethers**	7.23	131	3,119	286.7

* Maximum hourly stack emissions rate is based on the coating with the highest percent by weight of the given toxic air contaminant for each emissions unit. The individual emissions unit values were then summed together to get the combined emissions rate.

**Glycol ethers: butyl cellosolve acetate (CAS No. 112-07-2) and diethylene glycol monobutyl ether acetate (CAS No. 124-17-4). The TLV for butyl cellosolve acetate was used to represent all glycol ether emissions.

The permittee has demonstrated that emissions of toxic air contaminants from emissions units K053-K056 combined are calculated to cause ambient air concentrations that are less than 80% of the maximum acceptable ground-level concentration (MAGLC) for each contaminant. 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)(4).

(7) Prior to making any physical changes to or changes in the method of operation of emissions units K053, K054, K055 or K056 that could impact the parameters or values that were used in the predicted 1-hour maximum ground level concentrations 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 or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "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)(4), 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.

(8) 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)(4):

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 air contaminants emitted, change in stack/exhaust parameters, etc.);

b. the maximum acceptable ground-level concentration (MAGLC) for each significant toxic air contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute," ORC 3704.03(F)(4);

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)(4), 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)(4), 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.

(9) The permittee shall maintain a record of any change 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)(4), 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.

(10) For each day during which the permittee burns a fuel other than natural gas in any TOX servicing emissions unit K055 or K056, the permittee shall maintain a record of the type and quantity of fuel burned.

e) Reporting Requirements

(1) 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.

(2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. as recorded in d)(3) and d)(4) above regarding the operation of the thermal oxidizers (TOX):

i. all 3-hour blocks of time (when emissions unit(s) K055 and/or K056 was/were in operation) during which the average combustion temperature within a TOX controlling an operating emissions unit was more than 50 degrees Fahrenheit below the average combustion temperature measured during the most recent performance test that demonstrated that the emissions unit was in compliance;

ii. each incident of deviation described in "i" above where a prompt investigation was not conducted;

iii. each incident of deviation described in "i" above where prompt corrective action that would bring the temperature within the TOX into compliance with the acceptable range was determined to be necessary and was not taken; and

iv. each incident of deviation described in "i" above where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

b. as recorded in d)(5) above regarding the operation of the permanent total enclosures:

i. all periods of time during which the air flow indicating strips or other flow indicating device, at any natural draft opening, showed no air flow or air flow in a direction leaving the enclosure.

c. as recorded in d)(10) above, all days during which a fuel other than natural gas was burned in in any TOX servicing emissions unit K055 or K056, and the type and quantity of fuel burned on those days.

The quarterly reports shall be submitted each year by January 31 (covering October - December), April 30 (covering January - March), July 31 (covering April - June), and October 31 (covering July - September), unless an alternative schedule has been established and approved by the Canton City Health Department, Air Pollution Control Division. These reports may be submitted along with (e.g., as attachments to) the quarterly deviation reports required in Section B. of this permit, Facility-Wide Terms and Conditions.

(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.

The permittee shall identify in the annual PER the following information:

a. as recorded in d)(9) above, 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)(4), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions, emissions unit(s), or the exhaust stack(s) have been made, then the report shall include an affirmative statement to this effect.

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. <u>Emissions Limitations:</u>

Nitrogen oxides (NOx) emissions shall not exceed 0.263 tons per month for emissions unit K055, and 0.526 tons per month for emissions unit K056, each averaged over a 12-month rolling period.

Applicable Compliance Method:

The emissions limitations were established by calculating a modified maximum potential-to-emit based upon the maximum heat input capacity of the thermal oxidizers and a conservatively-high engineering estimate that the burners would operate no more than 60% of the time on an annual basis; i.e., 0.60 x 8760 = 5256 hr/yr. (This estimate was made in connection with the maximum feasible operating time for emissions units K055 & K056 themselves under facility-wide synthetic minor emissions limitations for VOC and HAPs.)

First, the short-term natural gas usage was calculated as follows, based on each thermal oxidizer's maximum heat input rating of 12.0 mmBtu/hr. There is one TOX for K055 and 2 TOXs for K056:

K055: (1) x (12.0 x 10^6 Btu/hr) ÷ (1000 Btu/scf gas) = 0.012 x 10^6scf gas/hr
K056: (2) x (12.0 x 10^6 Btu/hr) ÷ (1000 Btu/scf gas) = 0.024 x 10^6scf gas/hr

Next, the following emissions factor was applied: 100 lb_{NOx} per million scf natural gas burned (AP 42, Fifth Edition, Table 1.4-1: small boilers, uncontrolled).

K055: (100 lb_{NOx} /10^6scf gas) x (0.012 x 10^6scf gas/hr) = 1.2 lb_{NOx}/hr
K056: (100 lb_{NOx} /10^6scf gas) x (0.024 x 10^6scf gas/hr) = 2.4 lb_{NOx}/hr

The monthly emissions were calculated by multiplying the hourly emissions by 5256 hr/yr (60% of 8760 hr/yr based on the engineering estimate described above), then dividing by 12 months/yr and 2000 lb/ton:

K055: (1.2 lb_{NOx}/hr) × (5256 hr/yr) ÷ (12 mo/yr) ÷ (2000 lb/ton) = 0.263 ton_{NOx}/mo
K056: (2.4 lb_{NOx}/hr) × (5256 hr/yr) ÷ (12 mo/yr) ÷ (2000 lb/ton) = 0.526 ton_{NOx}/mo

b. Emissions Limitations:

Carbon monoxide (CO) emissions shall not exceed 0.221 tons per month for emissions unit K055 and 0.442 tons per month for emissions unit K056, each averaged over a 12-month rolling period.

Applicable Compliance Method:

The emissions limitations were established by calculating a modified maximum potential-to-emit based upon the maximum heat input capacity of the thermal oxidizers and a conservatively-high engineering estimate that the burners would operate no more than 60% of the time on an annual basis; i.e., 0.60 x 8760 = 5256 hr/yr. (This estimate was made in connection with the maximum feasible operating time for emissions units K055 & K056 themselves under facility-wide synthetic minor emissions limitations for VOC and HAPs.)

First, the short-term natural gas usage was calculated as follows, based on each thermal oxidizer's maximum heat input rating of 12.0 mmBtu/hr. There is one TOX for K055 and 2 TOXs for K056:

K055: (1) x (12.0 x 10^6 Btu/hr) ÷ (1000 Btu/scf gas) = 0.012 x 10^6scf gas/hr
K056: (2) x (12.0 x 10^6 Btu/hr) ÷ (1000 Btu/scf gas) = 0.024 x 10^6scf gas/hr

Next, the following emissions factor was applied: 84 lb_{CO} per million scf natural gas burned (AP 42, Fifth Edition, Table 1.4-1: small boilers, uncontrolled):

K055: (84 lb_{CO} /10^6scf gas) x (0.012 x 10^6scf gas/hr) = 1.01 lb_{CO}/hr
K056: (84 lb_{CO} /10^6scf gas) x (0.024 x 10^6scf gas/hr) = 2.02 lb_{CO}/hr

The monthly emissions were calculated by multiplying the hourly emissions by 5256 hr/yr (60% of 8760 hr/yr based on the engineering estimate described above), then dividing by 12 months/yr and 2000 lb/ton:

K055: (1.01 lb_{CO}/hr) × (5256 hr/yr) ÷ (12 mo/yr) ÷ (2000 lb/ton) = 0.221 ton_{CO}/mo
K056: (2.02 lb_{CO}/hr) × (5256 hr/yr) ÷ (12 mo/yr) ÷ (2000 lb/ton) = 0.442 ton_{CO}/mo

c. Control Requirement:

100% capture of VOC emissions during coating operations.

Applicable Compliance Method:

Compliance shall be met by locating the coating operation(s) of each emissions unit within a permanent total enclosure (PTE), and compliance shall be demonstrated based on the results of performance (emissions) testing conducted in accordance with f)(2) below.

d. Control Requirement:

From b)(1)a. above, pursuant to OAC rule 3745-31-05(D), volatile organic compound (VOC) emissions shall be controlled by means of a control system that shall have a minimum overall control efficiency of 97%, by weight, during coating operations.

Applicable Compliance Method:

Compliance shall be met by locating the coating operation(s) of each emissions unit within a permanent total enclosure (PTE) and by venting VOC emissions to a thermal oxidizer (TOX).

Initially and periodically thereafter, compliance with the minimum overall control efficiency requirement above shall be demonstrated based on the results of performance (emissions) testing conducted in accordance with f)(2) below.

Ongoing compliance shall be demonstrated indirectly based upon the Additional Terms and Conditions specified in b)(2)d. above, the Operational Restrictions specified in c)(2) above, and the Monitoring and Recordkeeping Requirements specified in d)(2) – d)(5) above.

(2) The permittee shall conduct, or have conducted, performance testing for emissions units K055 and K056 in accordance with the following requirements:

a. Requirements for the timing of initial performance testing and the frequency of additional testing shall be as follows:

i. Performance testing to demonstrate initial compliance shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.

ii. The actual date for the initial testing required in "i" above shall be established as the baseline date for subsequent retesting, which shall be conducted every five (5) years; i.e., not later than five years following the previous test. The retesting schedule shall not be based on the effective date of the first renewal permit nor upon subsequent renewal permits.

b. The performance testing shall be conducted for the following purposes:

i. to demonstrate compliance with the 100% capture efficiency requirement for each permanent total enclosure during coating operations;

ii. to demonstrate initial, one-time compliance (pursuant to ORC 3704.03(T) and OAC rule 3745-31-05(A)(3)) with the minimum overall design control efficiency of 97%, by weight, for VOC emissions during coating operations;

iii. to demonstrate initial and periodic ongoing compliance (pursuant to OAC rule 3745-31-05(D)) with the minimum allowable overall control efficiency of 97%, by weight, for VOC emissions during coating operations;

iv. (if compliance in "i" – "iii" above is successfully demonstrated) to determine the average combustion temperature for each TOX that will be used to establish the minimum acceptable average combustion temperature for any 3-hour block of time defined in d)(2) above as 50 degrees Fahrenheit below the average combustion temperature "during the most recent performance test that demonstrated the emissions source(s) was/were in compliance"; and

v. (also provided that compliance in "i" – "iii" above is successfully demonstrated) to establish the overall control efficiency for each TOX that will be used in the emissions calculations required in the Monitoring and/or Recordkeeping Requirements in Section B. of this permit, Facility-Wide Terms and Conditions.

c. Test methods:

i. Compliance with the 100% capture efficiency requirement for the permanent total enclosure (PTE) shall be demonstrated using Method 204 from 40 CFR Part 51, Appendix M, and Method 2 from 40 CFR Part

60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the U.S. EPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995, or the most recent revision. (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.)

(a) During the compliance demonstration for the permanent total enclosure, monitoring devices shall be installed to measure the average facial velocity of the air flow through each natural draft opening.

(b) Method 2 from 40 CFR part 60, Appendix A shall be conducted to determine the volumetric flow rate of the exhaust stream(s) exiting the permanent total enclosure, corrected to standard conditions. If the building is being used as the permanent total enclosure, it may be necessary to measure the volumetric flow, corrected to standard conditions, of each gas stream entering the enclosure through a forced makeup air duct, using Method 2. The facial velocity (FV) shall be calculated using the following equation:

$FV= (Q_o - Q_i) /A_n$

where:

Q_o is the sum of the volumetric flow from all gas streams exiting the enclosure through an exhaust duct or hood;

Q_i is the sum of the volumetric flow from all gas streams into the enclosure through a forced makeup air duct, and is equal to zero if there is no forced makeup air into the enclosure; and

A_n is the total area of all natural draft openings in the enclosure.

(c) If the average facial velocity is measured at greater than 500 feet per minute (9,000 m/hr), the direction of air flow shall be assumed to be inward at all times during the compliance demonstration. If the average facial velocity is measured at less than 500 feet per minute, the continuous inward flow of air shall be verified at least once every 10 minutes for a minimum of 1 hour during the compliance demonstration, either by checking the flow or pressure meter(s) or through the use of streamers, smoke tubes, or tracer gases. All closed access doors and windows that are not considered natural draft openings shall also be checked once during the compliance demonstration for leakage around their perimeters using smoke tubes or tracer gases.

(d) The permittee shall also measure and record the following information for the permanent total enclosure and each natural draft opening:

(i) the diameter of each natural draft opening;

(ii) the distance measured from each natural draft opening to each VOC emitting point in the process;

(iii) the distance measured from each exhaust duct or hood in the enclosure to each natural draft opening;

(iv) the total surface area of each natural draft opening and the surface area of the enclosure's four walls, floor, and ceiling; and

(v) the ratio of the total surface area (sum) of all natural draft openings to the total surface area of the permanent total enclosure.

ii. The control (destruction) efficiency (i.e., the percent reduction in VOC 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.

iii. Theoperating temperature of each TOX shall be continuously measured and recorded per term d)(3) above. The operating temperature measurements should be averaged every 15 minutes (15-minute blocks of time) during emission testing. A copy of the complete temperature monitoring data, and the 15-minute averages for the day that the emission test was conducted, shall be included with the test report required in term f)(2)g. below. The 15-minute average data will be used to establish the average temperature of the TOX referenced in term d)(2) above.

d. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the Canton City Health Department, Air Pollution Control Division (Canton APC). Although this generally consists of operating all controlled emissions units at their maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification Canton APC. 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 Canton APC's refusal to accept the results of the emission test(s).

f. Personnel from Canton APC shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to Canton APC 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 Canton APC.

g) Miscellaneous Requirements

(1) The average combustion temperature and overall control efficiency for each thermal oxidizer (TOX) established by the performance testing in f)(2) above shall be in effect until new performance testing is conducted that demonstrates that the emissions unit(s) is/are in compliance, at which time the permittee shall reestablish the average combustion temperature, the corresponding 50-degrees-below temperature, and the overall control efficiency based on the test results. The new values shall be effective without requiring a modification to the terms and conditions of this permit.