

Facility ID: 1483040357 Issuance type: Final State Permit To Operate

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In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 1483040357 Emissions Unit ID: K003 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

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) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (a) None.

A. Applicable Emissions Limitations and/or Control Requirements

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

| <u>Operations, Property, and/or Equipment</u> | <u>Applicable Rules/Requirements</u> | <u>Applicable Emissions Limitations/Control Measures</u> |
|---|---|--|
| K003-18 inch wide 10 station flexographic press with electric dryer | OAC rule 3745-31-05(A)(3) (PTI 14-04865) | Volatile Organic Compound (VOC) emissions shall not exceed 71.3 pounds per hour, 3778.2 pounds per month and 22.7 tons per year. See term A.2.a and A.2.c. See section B.1. * The hourly emission limitations outlined are based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with these limits. See term A.2.b. Exempt, pursuant to OAC rule 3745-21-09(Y)(2)(b). See term A.2.d. |
| | OAC rule 3745-31-05(C) OAC rule 3745-21-09(Y)(1) | |

2. Additional Terms and Conditions

- (a) The VOC emissions from the use of inks, coatings, and cleanup material employed in this emissions unit shall not exceed the following limitations, as applied:

Water-based coatings and inks - 349.7 pounds/month and 2.1 TPY
 Solvent-based coatings and inks -1441.5 pounds/month and 8.7 TPY
 Mold inhibitors -1752.2 pounds/month and 10.5 TPY
 Adhesives -182.3 pounds/month and 1.1 TPY
 Cleanup materials - 52.5 pounds per month and 0.3 TPY
 The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units K001, K002, K003, other de minimus air contaminant source, as defined in OAC rule 3745-15-05, and other air contaminant sources exempt from the requirement to obtain a permit-to-install pursuant to OAC rule 3745-31-03 installed subsequent to the issuance of this permit, combined, shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

This assumes that the HAP(s) emitted are the same as the amounts of HAP(s) used, since all HAP(s) used are evaporated.
 The VOC content of each of ink, coating and cleanup material employed in this emissions unit shall not exceed the following limitation:

Water-based coatings and inks - 0.94 pound per gallon, as applied
 Solvent-based coatings and inks, 6.20 pounds per gallon, as applied
 Mold inhibitors - 5.96 pounds per gallon, as applied
 Adhesives - 4.43 pounds per gallon, as applied
 Cleanup materials - 7.0 pounds per gallon, as applied
 In accordance with OAC rule 3745-21-09(Y)(2), the requirements of OAC rule 3745-21-09(Y)(1) do not apply to any printing line at a facility in which the total maximum usage of coatings and inks in all flexographic, packaging rotogravure and publication rotogravure printing lines is less than or equal to 148 tons per year.
 Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the usage, VOC content and

emissions limitations and compliance with the facility-wide HAPs emissions limitation.

B. Operational Restrictions

1. The maximum monthly and annual ink, coating, and cleanup material usage for this emissions unit shall not exceed the following:

Material Usage Limit(gal/month) Usage Limit(gal/year)

water-based inks 400 4800
 solvent-based inks 250 3000
 mold inhibitor 300 3600
 adhesive 42 504
 cleanup material 10 120

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information for each month for this printing operation:
- The name and identification number (water-based coating/ink, solvent-based coating/ink, mold inhibitor, adhesive, or cleanup material) of each ink, coating and cleanup material, as applied;
 - The VOC content, in pounds of VOC per gallon, of each ink, coating and cleanup material, as applied;
 - The number of gallons of each ink, coating and cleanup material, employed;
 - The monthly VOC emissions from each ink, coating and cleanup material, in pounds [the sum of (b) times (c)]; and
 - The monthly VOC emissions from all inks, coatings, and cleanup materials, in pounds [by summing the monthly VOC emissions from each ink, coating and cleanup material as calculated in (d)].
2. The permittee shall collect and record the following information each year for the purpose of determining annual VOC emissions:
- The total VOC emissions (this is calculated as the sum of the monthly VOC emissions in term C.1.e and dividing by 2000 lbs/ton for the calendar year), in tons.
 - The total ink, coating and cleanup material usage (this is calculated as the sum of the monthly ink, coating and cleanup usage in term C.1.c for the calendar year), in gallons.
3. The permittee shall collect and record the following information each month for the emissions units identified in term A.2.b:
- The name and identification number of all inks, coatings and cleanup material, employed;
 - The individual Hazardous Air Pollutant (HAP) content for each HAP of all inks, coatings and cleanup materials in pounds of individual HAP per gallon, as applied;
 - The total combined HAP content of all inks, coatings and cleanup materials in pounds of combined HAPs per gallon, as applied [sum all the individual HAP contents from (b)];
 - The number of gallons of all inks, coatings and cleanup materials employed;
 - The total individual HAP usage* for each HAP from all inks, coatings and cleanup materials employed, in tons per month [for each HAP the sum of (b) times (d)];
 - The total combined HAP usage* from all inks, coatings and cleanup materials employed, in tons per month [the sum of (c) times (d)];
 - The updated, rolling, 12-month summation of usage* for each individual HAP emissions, in tons. This shall include the information for the current month and the preceding eleven calendar months.; and
 - The updated, rolling, 12-month summation of usage* for total combined HAP emissions, in tons. This shall include the information for the current month and the preceding eleven calendar months.
- * The usage figures for HAPs shall be adjusted for retention and control efficiency where appropriate.
- ** A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Hamilton County Department of Environmental Services contact. This information does not have to be kept on a line-by-line basis.
4. The permittee shall collect and record the following information for each change where the air toxic modeling was required pursuant to the Air Toxic Policy:
- Background data that describes the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.); and
 - A copy of the resulting computer model runs that show the results of the application of the Air Toxic Policy for the change.
5. The permittee shall collect and record the total weight in tons of all coatings and inks employed on all flexographic, packaging rotogravure and publication rotogravure printing lines for the purpose of verifying the exemption status identified in term A.2.d.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the VOC emissions

limitations in terms A.1 and A.2.a as well as the corrective actions that were taken to achieve compliance. If no exceedances occurred during the reporting period then a report is required stating so.

The permittee shall submit such reports by January 31, April 30, July 31 and October 31 of each year for the previous calendar quarter (October through December, January through March, April through June and July through September, respectively).

2. The permittee shall submit deviation (excursion) reports which identify any exceedance of the VOC content and/or usage limitations in terms A.2.c and B.1 as well as the corrective actions that were taken to achieve compliance. If no exceedances occurred during the reporting period then a report is required stating so.

The permittee shall submit such reports by January 31, April 30, July 31 and October 31 of each year for the previous calendar quarter (October through December, January through March, April through June and July through September, respectively).

3. The permittee shall submit deviation (excursion) reports which identify any exceedance of the HAP emissions limitations set forth in this Permit to Install as well as the corrective actions that were taken to achieve compliance. If no exceedances occurred during the reporting period then a report is required stating so.

The permittee shall submit such reports by January 31, April 30, July 31 and October 31 of each year for the previous calendar quarter (October through December, January through March, April through June and July through September, respectively).

4. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any record which indicates the permittee exceeded the annual ink usage exemption threshold in term A.2.d. The notification shall include a copy of such record as well as the corrective actions the permittee will take to come into compliance with OAC rule 3745-21-09(Y)(1). The notification shall be submitted to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.

5. The permittee shall submit annual reports which specify the total VOC emissions from this emissions unit along with the total weight in tons of all materials employed on any flexographic, packaging rotogravure and publication rotogravure printing lines located at this facility for the previous calendar year. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

1. Compliance with the VOC emissions limitations in term A.2.a shall be demonstrated by the following methods. The values for solvent retention in the web are referenced in AP-42, Chapter 4.9.1, Page 7, 1981 (reformatted 1995):

Emissions Limitations:
 water-based inks and coatings 349.7 lbs VOC/month
 solvent-based inks and coatings 1441.5 lbs VOC/month
 mold inhibitor 1752.2 lbs VOC/month
 adhesive 182.3 lbs VOC/month
 cleanup material 52.5 lbs VOC/month

Applicable Compliance Method:
 $\text{Actual usage (gallons/month)} \times \text{actual VOC content (lbs VOC/gallon)} \times 1\text{-retention} [1 - (2\% \text{ for mold inhibitor and adhesive, } 7\% \text{ for inks and coatings})/100] = \text{actual lbs VOC/month.}$

Emissions Limitations:
 water-based inks and coatings 2.1 TPY VOC
 solvent-based inks and coatings 8.7 TPY VOC
 mold inhibitor 10.5 TPY VOC
 adhesive 1.1 TPY VOC
 cleanup material 0.3 TPY VOC

Applicable Compliance Method:
 $\text{Actual usage (gallons/year)} \times \text{actual VOC content (lbs VOC/gallon)} \times 1\text{-retention} [1 - (2\% \text{ for mold inhibitor and adhesive, } 7\% \text{ for inks and coatings})/100 \times 1/2000] = \text{actual TPY VOC.}$

2. Compliance with the VOC emissions limitations in section A.1 shall be demonstrated by the following methods:

Emissions Limitation:
 3778.2 lbs/month of VOC

Applicable Compliance Method:
 For each month, the compliance shall be demonstrated by the summation of the actual emissions from the water-based inks and coatings, solvent-based inks and coatings, mold inhibitors, adhesives, and cleanup materials, in pounds, as required by the record keeping performed pursuant to section C.1 of this permit. .

Emissions Limitation:
 22.7 TPY of VOC

Applicable Compliance Method:
 For each calendar year, January through December, compliance shall be demonstrated by the summation of the actual emissions from the water-based inks and coatings, solvent-based inks and coatings, mold inhibitors, adhesives, and cleanup materials, in tons, as required by the record keeping performed pursuant to section C.2 of this permit.

3. Compliance with the HAPs emissions limitations in section A.2.b shall be demonstrated by the record keeping performed pursuant to section C.3 of this permit.
4. USEPA methods 24 and 24A shall be used to determine the VOC content for inks, flexographic printing lines and related coatings and cleanup materials. If, pursuant to 40 CFR, Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular ink, coating, or cleanup material the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that ink, coating, or cleanup

material to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

5. Compliance with the usage limitations in section B.1 shall be demonstrated by the record keeping performed pursuant to sections C.1 and C.2 of this permit.
6. Compliance with the exemption limitation as outlined in A.2.d shall be demonstrated by the record keeping performed pursuant to section C.5 of this permit.

F. Miscellaneous Requirements

1. This permit allows the use of materials (inks, coatings, and cleanup materials) specified by the permittee in the permit to install application for this emissions unit. To fulfill the best available technology requirements of (OAC) rule 3745-31-05(A)(3) and to ensure compliance with OAC rule 3745-15-07 (Air Pollution Nuisances Prohibited), the emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Air Toxic Policy" and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for each pollutant:

Pollutant: acrylic acid

TLV (ug/m3): 5900

Maximum Hourly Emission Rate (lbs/hr): 0.15

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 10.47

MAGLC (ug/m3): 140.5

OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by the OAC rule 3745-31-01. The permittee is hereby advised that the following changes to the process may be determined to be a "modification":

a. Changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

b. Changes to the emissions unit or its exhaust parameters (e.g., increased emission rate [not including an increase in an "allowable" emission limitation specified in the terms and conditions of this permit], reduced exhaust gas flow rate, and decreased stack height);

c. Changes in the composition of the materials used, or use of new materials, that would result in the emission of an air contaminant not previously permitted; and

d. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV.

The Ohio EPA will not consider any of the above-mentioned as a "modification" requiring a permit to install, if the following conditions are met:

a. The change is not otherwise considered a "modification" under OAC Chapter 3745-31;

b. The permittee can continue to comply with the allowable emission limitations specified in its permit to install; and

c. Prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy, determines that the changed emissions unit still satisfies the Air Toxic Policy, and the permittee maintains documentation that identifies the change and the results of the application of the Air Toxic Policy for the change.

For any change to the emissions unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.