

Facility ID: 1483040446 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: 1483040446 Emissions Unit ID: K001 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>
K001-Fischer and Krecke 8-color station flexographic printing press with drying oven	OAC rule 3745-31-05(A)(3) 14-05844	Emissions of Volatile Organic Compounds (VOC) from the evaporation of solvents from inks and coatings shall not exceed 43.4 lbs/hr. Emissions of VOC from the combustion of natural gas in the drying oven shall not exceed 0.03 lb/hr and 0.13 ton per year (TPY). See terms A.2.a and A.2.b. See section B.2. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C). Emissions of VOC from the evaporation of solvents from inks and coatings shall not exceed 25.0 TPY based on a rolling, 12-month summation. See term A.2.c and section B.1. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). See term A.2.e.
	OAC rule 3745-31-05(C) Synthetic Minor to Avoid Non-attainment New Source Review, Title V permitting and 40 CFR 63 Subpart KK OAC rule 3745-21-09(Y)(1)(a)(ii) ORC 3704.03(T)(4)	

2. Additional Terms and Conditions

- (a) The maximum VOC content of inks and coatings employed in this emissions unit shall not exceed 0.402 lb of VOC per gallon of coating, as applied.
The maximum VOC content of inks and coatings employed in this emissions unit shall not exceed 0.20 lb of VOC per gallon of ink or coating, as applied, based on a monthly volume weighted average of all inks and coatings employed.
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 B001, K001, P001, all de minimus emissions units (as defined in OAC rule 3745-15-05), all emissions units exempt from the requirements to obtain a permit to install pursuant to OAC rule 3745-31-03 currently and future to be installed air contaminant sources, combined shall not exceed 9.9 TPY for any single and HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on rolling, 12-month summations.

This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month emission summations upon issuance of this permit. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the TPY emission rates, compliance with the rolling, 12-month coating usage, HAP emission limitations and compliance with the VOC content limitations.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emission (PE)/particulate matter emissions 10 microns in diameter and less (PM10), sulfur dioxide (SO2), nitrogen oxide (NOx) and carbon monoxide (CO) emissions from this air contaminant source since the uncontrolled potential to emit for these emissions are less than ten tons

per year.

The hourly VOC emission limitation of 43.4 lbs/hr is based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly records are required to demonstrate compliance with this limitation.

B. Operational Restrictions

1. The maximum annual ink and coating usage for this emissions unit shall not exceed 250,000 gallons per year, based upon a rolling, 12-month summation of the ink and coating usage figures.

This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summations of the ink and coating usage rates, upon issuance of this permit.

2. The permittee shall not employ cleanup materials in this emissions units which contain "organic compounds" as defined by OAC rule 3745-21-01(B)(4).

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information on a monthly basis for emissions unit K001:
 - a. the name and identification number of each ink and coating, as applied;
 - b. the VOC content, in pounds per gallon of coating, for each ink and coating employed;
 - c. the number of gallons of each ink and coating employed;
 - d. the monthly volume-weighted average VOC content, as applied, for all inks and coatings, in lbs/gallon. The monthly volume weighted average shall be calculated by multiplying the VOC content in line b by the usage amount contained in line c for all inks and coatings employed during that month. The summation of these values should then be divided by the total gallons of inks and coatings employed during that month;
 - e. the permittee shall record the rolling, 12-month summation of the ink and coating usage figures;
 - f. the permittee shall calculate and record the rolling, 12-month summation of the VOC emissions, in tons, from the evaporation of solvent from inks and coatings for each calendar month (e multiplied by the volume weighted average VOC as calculated for that month in d multiplied by 1 ton/2000 lbs); and
 - g. an identification of each cleanup material which contains an "organic compound," as defined by OAC rule 3745-21-01(B)(4).
2. The permittee shall collect and record the following information each month for the emissions units identified in term and condition A.2.c:
 - a. the name and identification number of each ink and coating employed;
 - b. the individual Hazardous Air Pollutant (HAP) content for each HAP of each ink and coating in pounds of individual HAP per gallon of ink or coating, as applied;
 - c. the total combined HAP content of each ink and coating in pounds of combined HAP emissions per gallon of ink or coating, as applied (sum all the individual HAP contents from b);
 - d. the number of gallons of each ink and coating employed;
 - e. the name and identification of each cleanup material employed;
 - f. the individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, as applied;
 - g. the total combined HAP content of each cleanup material, in pounds of combined HAP emissions per gallon of cleanup material, as applied (sum all the individual HAP contents from f);
 - h. the number of gallons of each cleanup material employed;
 - i. the type and amount of fuel used in the facility;
 - j. the calculation of the individual and total HAPs emissions from fuel burning at the facility;
 - k. the total individual HAP emissions for each HAP, in pounds or tons per month (for each HAP the sum of b times d for each ink and coating plus the sum of f times h for each cleanup material plus the HAPs from fuel burning);
 - l. the total combined HAP emissions, in pounds or tons per month (the sum of c times d for each ink and coating plus the sum of g times h for each cleanup material plus the HAPs from fuel burning);
 - m. the updated rolling, 12-month summation of usage for each individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
 - n. the updated rolling, 12-month summation of usage for total combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.
3. The permit to install for emissions unit K001 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust systems, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: monoethanolamine (CAS 141-43-5)
 TLV (ug/m3):7490
 Maximum Hourly Emission Rate (lbs/hr): 8.2 lbs monoethanolamine/hr
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 178.1
 MAGLC (ug/m3): 178.3

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include 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 compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; 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 "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all exceedances of the rolling, 12-month coating usage and/or VOC emission limitations. If no deviations occurred during the reporting period, the permittee shall state so in the report. The permittee shall submit the reports by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively).
2. The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all exceedances of the rolling, 12-month HAP emission limitations. If no deviations occurred during the reporting period, the permittee shall state so in the report. The permittee shall submit the reports by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively).
3. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any monthly record showing the use of noncomplying coatings (i.e., for VOC contents), including the monthly volume weighted average VOC content limit in this emissions unit. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month.
4. The permittee shall also submit annual reports which specify the total VOC emissions from this emissions unit for the previous calendar year. These reports shall be sent to the Hamilton County Department of Environmental Services by January 31 of each year.
5. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any monthly record showing the use of a noncomplying cleanup material (i.e., for OC content). The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month.
6. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the emission limitations in Sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following method(s):
 Emission Limitation:
 Emissions of Volatile Organic Compounds (VOC) from the evaporation of solvents from inks and coatings shall not exceed 43.4 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly VOC emission limitation shall be demonstrated by multiplying the maximum hourly coating usage rate for the 8-color station press, as applied (gallons/hr) by the maximum VOC content of the coatings, as applied (lbs VOC/gallon) such that the product equals lbs of VOC/hr from the 8-color station press.

Emission Limitations:

Emissions of VOC from the combustion of natural gas in the drying oven shall not exceed 0.03 lb/hr and 0.13 ton per year (TPY).

Applicable Compliance Method:

Compliance with the emission limitation shall be demonstrated by multiplying the actual drying oven natural gas usage rates (mmBtu/yr) by the emission factors in AP-42, Fifth Edition, Table 1.4-2 revised 7/98 (lbs of pollutant/mmBtu) such that the product equals lbs of VOC/hr; and multiplied by 1 ton/2000 lbs such that the product equals TPY of VOC.

Emission Limitation:

Emissions of VOC from the evaporation of solvents from inks and coatings shall not exceed 25.0 TPY based on a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the rolling, 12-month VOC emission limitation shall be demonstrated by the record keeping requirement in term C.1.f.

Emission Limitations:

9.9 TPY for any single HAP and 24.9 TPY for any combination of HAP emissions based on rolling, 12-month summation of HAP emissions.

Applicable Compliance Method:

Compliance with the rolling, 12-month HAP emission limitations shall be demonstrated by the record keeping requirements in Section C.2.

Emission Limitations:

VOC content of inks and coatings shall not exceed 0.402 lb of VOC per gallon of ink or coating, as applied; and VOC content of inks and coatings employed shall not exceed 0.20 lb of VOC per gallon of inks and coatings, as applied, based on a monthly volume weighted average of all inks and coatings employed.

Applicable Compliance Methods:

Compliance with the VOC content limitations shall be demonstrated by the following:

- i. for the maximum VOC content limit, USEPA methods 24 and 24A shall be used to determine the VOC content for flexographic and rotogravure printing lines and related coatings, respectively. 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 coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A; and
 - ii. for the volume monthly weighted average VOC content limit, compliance shall be demonstrated by the record keeping requirement in term C.1.d.
2. Compliance with the maximum annual ink and coating usage limitation in section B.1 shall be based on the record keeping requirements specified in section C.1.
 3. Compliance with the OC content limitation in section B.2 shall be based on the record keeping requirements specified in section C.1.

F. Miscellaneous Requirements

1. None