Facility ID: 1413020453 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: 1413020453 Emissions Unit ID: K004 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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
flexographic printing press (Ward die cutter)	OAC rule 3745-31-05(A)(3) (PTI 14-04806)	5.23 lbs/hour of volatile organic compound (VOC) emissions, including VOC emissions from cleanup materials 11.26 tons per year (TPY) of VOC emissions, including VOC emissions from cleanup materials 0.49 lb/hour of ammonia emissions 1.06 TPY of ammonia emissions See Sections A.2.a, A.2.c and A.2.d below.
	OAC rule 3745-31-05(D)	11.26 TPY of VOC emissions, including VOC emissions from cleanup materials, based upon a rolling, 12-month summation
	OAC rule 3745-21-09(Y)(1)(a)	See Section A.2.b below.

2. **Additional Terms and Conditions**

   (a) The hourly VOC and ammonia emission limitations specified above are based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with these emission limitations.
   The VOC content, as applied, of each ink employed in this emissions unit shall not exceed the following limitation:

   a. Forty percent (40%) VOC by volume of each ink, excluding water and exempt solvents; or

   b. Twenty-five percent (25%) VOC by volume of the volatile matter in each ink.
   The VOC content of each ink employed in this emissions unit shall not exceed 8.3% VOC, by weight, as applied.
   The VOC content of each cleanup material employed in this emissions unit shall not exceed 30% VOC, by weight.

B. **Operational Restrictions**

1. The maximum annual ink usage rate shall not exceed 264,000 pounds per year, based upon a rolling, 12-month summation.

2. The maximum annual cleanup material usage rate shall not exceed 2,000 pounds per year, based upon a rolling, 12-month summation.

C. **Monitoring and/or Record Keeping Requirements**

1. The permittee shall collect and record the following information each month for this emissions unit:

   a. the company identification of each ink and cleanup material employed;

   b. the amount, in pounds, of each ink, as applied;

   c. the amount, in pounds, of each cleanup material employed;

d. the percent VOC, by volume, of each ink, excluding water and exempt solvents, as applied, or the percent VOC, by volume, of the volatile matter in each ink [calculated in accordance with the equation(s) specified in paragraph (B)(8) of OAC rule 3745-21-10 using equation CVOC,5 (for ink) or equation CVOC,6 (for volatile matter)];

e. the VOC content of each ink, as applied, in percent by weight;

f. the VOC content of each cleanup material employed, in percent by weight;

g. the ammonia content, in percent by weight, of each ink and cleanup material employed;

h. the total VOC emissions from all inks and cleanup materials employed, in pounds [summation of (b x e/100%) for all inks, plus the summation of (c x f/100%) for all cleanup materials employed];
i. the total ammonia emissions, in pounds [summation of (b x g/100%) for all inks, plus the summation of (c x g/100%) for all cleanup materials];

j. the updated rolling, 12-month summation of usage rates for all inks and cleanup materials employed, in pounds (this shall include the information for the current month and the preceding eleven calendar months); and

k. the updated rolling, 12-month summation of the total VOC emissions for all inks and cleanup materials employed, in tons. This shall include the information for the current month and the preceding eleven calendar months.

2. The permittee shall maintain annual records of the following information for this emissions unit:

a. the total VOC emissions, in tons, from all inks and cleanup materials employed in this emissions unit for the calendar year (summation of C.1.h for each month of the calendar year and divided by 2,000 lbs/ton); and

b. the total ammonia emissions, in tons (summation of C.1.i for each month of the calendar year and divided by 2,000 lbs/ton).

3. The permit to install for this emissions unit was evaluated based on the actual materials employed (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. Ohio EPA's "Review of New Sources of Air Toxics Emissions" policy ("Air Toxics Policy") was applied for each toxic 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 Acceptable Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant and for the total allowable emission rate of that pollutant from emissions units K001 through K005:

Pollutant: Ammonia
TLV (ug/m3): 17,410
Maximum Hourly Emission Rate (lbs/hr): 2.77
Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 215.1
MAGLC (ug/m3): 415

Physical changes to or 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 Toxics 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 Toxics Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxics Policy" will not be satisfied, the permittee shall not make the change. Changes that can affect the parameters used in the "Air Toxics 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 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 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 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 Toxics Policy" will be satisfied with the above changes, Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition [other than (VV)(1)(a)(ii)], 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 satisfy the "Air Toxics Policy":

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxics Policy"; and

c. when the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxics Policy" for the change.

D. **Reporting Requirements**

1. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any monthly record showing the VOC content (in percent by weight and/or volume) exceeds the applicable limitations for inks or cleanup materials as specified in Section A.2 of this permit. 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.

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

   a. any exceedance of the limitation on the rolling, 12-month summation of VOC emissions; and

   b. any exceedance of the limitation on the rolling, 12-month summation usages of the inks and cleanup materials employed in this emissions unit.

3. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

4. The permittee shall submit annual reports to the Hamilton County Department of Environmental Services that specify the total VOC and ammonia emissions, in tons, for the calendar year. The reports shall be submitted by January 31 of each year and cover the previous calendar year.

E. **Testing Requirements**

1. Compliance with the VOC emission limitations, ammonia emission limitations, VOC content limitations and the material usage restrictions specified in Sections A and B shall be determined by the following methods:
   VOC Emission Limitations: 5.23 lbs/hour, including VOC emissions from cleanup materials; 11.26 TPY of VOC emissions, including VOC emissions from cleanup materials

   Applicable Compliance Method: The hourly VOC emission limitation is based upon the emission unit's potential to emit and was established by multiplying the maximum hourly usage rates of the inks and cleanup materials employed (61.2 lbs/hour and 0.5 lb/hour, respectively) by their maximum VOC content limitations, in percent by weight, and totaling the results.

   Compliance with the annual VOC emission limitation shall be determined by the record keeping requirements specified in Section C.2.
   VOC Emission Limitation: 11.26 TPY of VOC emissions, including VOC emissions from cleanup materials, based upon a rolling, 12-month summation

   Applicable Compliance Method: Compliance with the VOC emission limitation shall be determined by the record keeping requirements specified in Section C.1.
   Ammonia Emission Limitations: 0.49 lb/hour of ammonia emissions; 1.06 TPY of ammonia emissions

   Applicable Compliance Method: The hourly ammonia emission limitation is based upon the emission unit's potential to emit and was established by multiplying the maximum hourly usage rates of the inks and cleanup materials employed (61.2 lbs/hour and 0.5 lb/hour, respectively) by their maximum ammonia contents, in percent by weight, and dividing by 100%, then totaling the results.

   Compliance with the annual ammonia emission limitation shall be determined by the record keeping requirements specified in Section C.2.
   VOC Content Limitation: Forty percent (40%) VOC by volume of each ink, excluding water and exempt solvents; or twenty-five percent (25%) VOC by volume of the volatile matter in each ink

   Applicable Compliance Method: Compliance with the VOC content limitation shall be determined by the record keeping requirements specified in Section C.1. If, pursuant to Section 4.3 of Method 24, 40 CFR, Part 60, Appendix A, the permittee determines that Method 24A cannot be used for a particular ink, the permittee shall so notify the Administrator of the U.S. EPA and shall use formulation data for that ink to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24A.
   VOC Content Limitations: 8.3% VOC, by weight, for each ink employed; 30% VOC, by weight, for each cleanup material employed

   Applicable Compliance Method: Compliance with the VOC content limitations shall be determined by the record keeping requirements specified in Section C.1. Formulation data or U.S. EPA Method 24 or 24A (whichever is appropriate for the particular material) shall be used to determined the VOC content of any ink or cleanup material used.
   Material Usage Restrictions: 264,000 pounds of inks per year and 2,000 pounds of cleanup materials per year, based upon a rolling, 12-month summation

   Applicable Compliance Method: Compliance with the material usage restrictions shall be determined by the record keeping requirements specified in Section C.1.

F. **Miscellaneous Requirements**

1. None