

Facility ID: 1409030853 Issuance type: Final State Permit To Operate

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

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: 1409030853 Emissions Unit ID: K016 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>
flexographic printing press	OAC rule 3745-31-05(A)(3) (PTI 14-04917)	40.3 lbs of volatile organic compound (VOC) emissions/hour, excluding VOC emissions from cleanup materials 1.38 lbs of ammonia emissions/hour, from emissions units K001 through K006 and K008 through K016 combined 0.54 ton per year (TPY) of ammonia emissions, from emissions units K001 through K006 and K008 through K016 combined
	OAC rule 3745-21-09(Y)(1)	See Sections A.2.b, A.2.c and B.1 through B.3 below. Exempt, pursuant to the provisions of OAC rule 3745-21-09(Y)(2)(b).

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 combined VOC emissions from emissions units K001 through K006 and K008 through K016 shall not exceed 47.0 TPY, including VOC emissions from cleanup materials, based on a rolling, 12-month summation. This emission limitation, established pursuant to OAC rule 3745-35-07(B)(1), is a synthetic minor restriction to avoid the Title V permitting requirements.
The following VOC content limitations shall apply to all materials employed in emissions units K001 through K006 and K008 through K016:
 - i. the VOC content of each solvent-based ink shall not exceed 8.0 pounds of VOC per gallon, as applied, including water and exempt solvents;
 - ii. the VOC content of each water-based ink employed shall not exceed 1.0 pound of VOC per gallon, as applied, including water and exempt solvents; and
 - iii. the VOC content of each liquid organic cleanup material employed shall not exceed 8.0 pounds of VOC per gallon.

B. Operational Restrictions

1. The maximum annual solvent-based ink usage in emissions units K001 through K006 and K008 through K016 shall not exceed a combined total of 5,000 gallons per year, including water and exempt solvents, based upon a rolling, 12-month summation.
2. The maximum annual water-based ink usage in emissions units K001 through K006 and K008 through K016 shall not exceed a combined total of 6,000 gallons per year, including water and exempt solvents, based upon a rolling, 12-month summation.

3. The maximum annual liquid organic cleanup material usage in emissions units K001 through K006 and K008 through K016 shall not exceed a combined total of 6,000 gallons per year based upon a rolling, 12-month summation.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records that list the following information for each solvent-based ink, water-based ink and cleanup material employed in emissions units K001 through K006 and K008 through K016:
- the company identification of each solvent-based ink, water-based ink and cleanup material employed;
 - the number of gallons of each solvent-based ink employed, including water and exempt solvents;
 - the number of gallons of each water-based ink employed, including water and exempt solvents;
 - the number of gallons of each cleanup material employed, including water and exempt solvents;
 - the VOC content, in lbs/gallon, of each ink and cleanup material, as applied, including water and exempt solvents;
 - the total VOC emissions from all solvent-based inks, water-based inks and cleanup materials employed, in pounds [summation of (b x e) for all solvent-based inks, plus the summation of (c x e) for all water-based inks, plus the summation of (d x e) for all cleanup materials employed, and divided by 2,000 lbs/ton];
 - the updated rolling, 12-month summation of usage rates for all solvent-based inks, water-based inks and cleanup materials employed, in gallons (this shall include the information for the current month and the preceding eleven calendar months); and
 - the updated rolling, 12-month summation of the total VOC emissions for all solvent-based inks, water-based 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 total amount of VOC emissions, in tons, for the calendar year (summation of C.1.f for all months of the calendar year).
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" pollutants:

Pollutant: Ammonia
 TLV (ug/m3): 17,410
 Maximum Hourly Emission Rate (lbs/hr): 1.5
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 243.7
 MAGLC (ug/m3): 415

Pollutant: n-propyl alcohol
 TLV (ug/m3): 491,500
 Maximum Hourly Emission Rate (lbs/hr): 6.55
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,064
 MAGLC (ug/m3): 11,702

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:

- 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;
- 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
- 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 description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- 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 exceeds the applicable limitations for solvent-based inks, water-based inks or cleanup materials as specified in Section A.2.c 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 limitations on the rolling, 12-month summations of usages of the solvent-based inks, water-based inks and/or 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 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 Limitation: 40.3 lbs/hour, excluding VOC emissions from cleanup materials;

Applicable Compliance Method: The hourly VOC emission limitation is based upon the emissions unit's potential to emit and was established by multiplying the maximum hourly usage rates (in gallons) of the solvent-based inks and water-based inks employed, by their respective maximum VOC contents (in lbs/gallon), and totaling the results.

VOC Emission Limitation: 47.0 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: 1.38 lbs/hour of ammonia emissions; 0.54 TPY of ammonia emissions

Applicable Compliance Method: The hourly ammonia emission limitation is based upon the emissions unit's potential to emit and was calculated using the following equations:

i. Water-based Coatings: [maximum hourly usage rate (7.5 lbs/gallon)] x [maximum coating density (9 lbs/gallon)] x [maximum fractional ammonia content, by weight, in the coatings (0.02)] = 1.35 lbs of ammonia emissions/hour; and

ii. Cleanup Materials: [maximum hourly usage rate (0.5 gallon/hour), per machine] x [15 machines] x [maximum fractional ammonia content, by weight, in the cleanup material (0.005)] x [maximum cleanup material density (8 lbs/gallon)] = 0.03 lb of ammonia emission/hour

Total Ammonia Emissions: 1.35 + 0.03 = 1.38 lbs of ammonia emissions/hour

Compliance with the annual ammonia emission limitation is ensured if compliance is maintained with the annual water-based coating and cleanup material usage restrictions.

VOC Content Limitations: 8.0 lbs of VOC/gallon for solvent-based inks, including water and exempt solvents; 1.0 lb of VOC/gallon for water-based inks, including water and exempt solvents; 8.0 lbs of VOC/gallon for cleanup materials

Applicable Compliance Method: Compliance with the VOC content limitations 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. Formulation data or U.S. EPA Method 24 shall be used to determine the VOC content of cleanup materials.

Material Usage Restrictions: 5,000 gallons per year for solvent-based inks, 6,000 gallons per year for water-based inks, 6,000 gallons per year of cleanup materials, including water and exempt solvents; all based upon a rolling, 12-month summation, for emission units K001 through K006 and K008 through K016 combined

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. The following terms and conditions of this permit are federally enforceable: A., B.1, B.2, B.3, C.1, D.1, D.2 and E.1.