

Facility ID: 1318532181 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: 1318532181 Emissions Unit ID: K012 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>
Komori Chambon eight color web offset Lithographic (non-heatset) press with two auxiliary printing units functioning as either gravure or flexography.	OAC rule 3745-31-05(A)(3)(PTI 13-04402 issued on November 30, 2004 and modified on November 16, 2006)	30.2 lbs VOC/hr from inks/ coatings/ fountain solutions Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 9.1 tpy, as a rolling 12-month summation, from a combination of inks, coatings, fountain solutions and clean-up materials. The VOC content of the coatings and inks employed in this emissions unit shall not exceed 0.4 pound VOC per gallon, as applied, as a monthly, volume-weighted average. The VOC content of the fountain solutions employed in this emissions unit shall not exceed 0.83 pound VOC per gallon, as applied, as a monthly, volume-weighted average.
	OAC rule 3745-21-07(G)	See section A.2.a
	OAC rule 3745-35-07	Organic compound and volatile organic compound (OC/VOC) emissions from the facility shall not exceed 97.1 tons per rolling 12-month period.
	Synthetic Minor to avoid Title V and MACT	
	OAC rule 3745-21-09(Y)(2)(b)	See section A.2.b See section A.2.d

2. Additional Terms and Conditions

- (a) The permittee shall not employ any photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit. This rule applies when this emissions unit functions as an offset Lithographic (non-heatset) press.
The total allowable emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act, from this facility shall not exceed 9.9 tons/year for any single HAP and 24.9 tons/year for any combination of HAPs, based on a rolling, 12-month summation of emissions.

The permittee has existing records to demonstrate compliance with this limit upon permit issuance. The facility-wide emission limits shall include emissions from the following units: K002, K003, K008, K009, K010, K011, K012, P001, P002, B002, and five De Minimis gluers.
The total maximum usage of coatings and inks in all flexographic, packaging rotogravure and publication rotogravure printing lines shall be less than or equal to 148 tons per year. This limitation applies to the amount of coating usage when this emissions unit operates as a flexographic press.
The pound per hour VOC emission limitation is based on the emissions unit's potential to emit. Therefore, monitoring, recordkeeping and reporting are not required to demonstrate compliance with

this limit.

B. Operational Restrictions

1. The maximum annual volatile organic material usage for this emissions unit shall not exceed 207,200 lbs, based upon a rolling 12-month summation of the volatile organic material usage figures.
2. The maximum annual OC/VOC emissions for the facility (See A.2.c) shall not exceed 97.1 tons, based upon a rolling 12-month summation of the monthly OC/VOC emissions.
3. The maximum annual HAP material usage for the facility (See A.2.c) shall be restricted and monitored so that HAP emissions shall not exceed 9.9 tons for any single HAP and 24.9 tons for combined HAPs, based upon a rolling 12-month summation of the emissions.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each month for the coating lines at this facility:
 - a. the name and identification number of each ink, fountain solution and coating, employed;
 - b. the OC/VOC content of each ink, fountain solution and coating, in pounds per gallon;
 - c. the individual hazardous air pollutant (*HAP) content for each HAP of each ink, fountain solution and coating in pounds of individual HAP per gallon of coating, as applied;
 - d. the total combined HAP content of each coating in pounds of combined HAPs per gallon of ink, fountain solution and coating, as applied [sum all the individual HAP contents from (c)];
 - e. the amount, in gallons, of each ink, fountain solution and coating employed;
 - f. the name and identification of each cleanup material employed;
 - g. the OC/VOC content of each cleanup material, in pounds per gallon;
 - h. the individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, as applied;
 - i. the total combined HAP content of each cleanup material, in pounds of combined HAPs per gallon of cleanup material, as applied [sum all the individual HAP contents from (h)];
 - j. the amount, in gallons, of each cleanup material employed;
 - k. the total OC/VOC emissions from all ink, coatings, fountain solutions and cleanup materials employed calculated by summing the records of [(b) x (e) x (100% - solvent retention factor**) for each ink/coating /fountain solution, plus (g) x (j) for each cleanup material], in pounds and tons per month;
 - l. the total volatile organic material usage for all ink, coatings, fountain solutions and cleanup materials employed calculated by summing the records of [(b) x (e) plus (g) x (j)] for each ink, coating, fountain solution and cleanup material, in pounds and tons per month;
 - m. the updated rolling, 12-month summation of volatile organic material usage and OC/VOC emissions from all ink, coatings, fountain solutions and cleanup materials employed, in tons (this shall include the information for the current month and the preceding eleven calendar months);
 - n. the total individual HAP emissions for each HAP from all inks, coatings, fountain solutions and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (c) x (e) x (100%- solvent retention factor**) for each ink/coating/fountain solution, plus the sum of (h) x (j) for each cleanup material];
 - o. the total combined HAP emissions from all inks, coatings, fountain solutions and cleanup materials employed, in pounds or tons per month [the sum of (d) x (e) x (100%- solvent retention factor**) for each ink/coating/fountain solution plus the sum of (i) x (j) for each cleanup material];
 - p. the updated rolling, 12-month summation of emissions for each individual HAP, in pounds or tons (this shall include the information for the current month and the preceding eleven calendar months); and
 - q. the updated rolling, 12-month summation of emissions for total combined HAP, in pounds or tons (this shall include the information for the current month and the preceding eleven calendar months).

* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Cleveland Division of Air Quality contact. This information does not have to be kept on an individual emissions unit basis.

**The solvent retention factor for lithographic inks is 95% per USEPA's CTG document "Control of VOC Emissions from Offset Lithographic Printing" , and the solvent retention factor for flexographic inks is 7% based on the permittee's previous mass balance determinations. The solvent retention factor for the fountain solutions is 0% based on the permittee's previous mass balance determinations.

2. The permittee shall collect and record the following information for each month for this emissions unit:
 - a. the name and identification of each ink, coating, fountain solution and cleanup material employed;
 - b. the amount, in gallons, of each ink, fountain solution and coating employed (this record shall be kept separate for lithographic inks and flexographic inks);
 - c. the VOC content, in pounds per gallon, of each ink, fountain solution and coating employed;
 - d. the amount, in gallons, of each cleanup material employed;
 - e. the VOC content, in pounds per gallon, of each cleanup material employed;

f. the VOC contents of the coatings, fountain solutions and inks, as applied based on a monthly volume-weighted average [the sum of (b) x (c) for all inks, fountain solutions and coatings employed divided by the total volume of all the coatings, fountain solutions and inks for the month] per OAC rule 3745-21-10(B).

g. the total VOC emissions for all inks/coatings/fountain solutions and cleanup materials, in pounds [sum of (b) x (c) x (100% - solvent retention factor*) for each ink/coating/fountain solution, plus (d) x (e)] for each cleanup material, in pounds and tons;

h. the total volatile organic material usage for all inks/coatings/fountain solutions and cleanup materials, in pounds [sum of (b) x (c) plus (d) x (e)], in pounds and tons;

i. the updated rolling, 12-month summation of the volatile organic material usage and VOC emissions for all inks/coatings/fountain solutions and cleanup materials, in tons (this shall include the information for the current month and the preceding eleven calendar months).

*The solvent retention factor for lithographic inks is 95% per USEPA's CTG document "Control of VOC emissions from Offset Lithographic Printing", and the solvent retention factor for flexographic inks is 7% based on the permittee's previous mass balance determinations. The solvent retention factor for the fountain solutions is 0% based on the permittee's previous mass balance determinations.

3. The permittee shall record the total VOC emission rate for this emissions unit from all coatings, inks, fountain solutions and cleanup materials for each calendar year, in tons.
4. The permit to install for K012 was evaluated based on the actual materials (typically inks, 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. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Ammonia

TLV (ug/m3): 17,413

Maximum Average Hourly Emission Rate (lbs/hr): 4.35

Predicted 1-Hour Maximum Ground-Level Concentration at 112 m (ug/m3): 292

MAGLC (ug/m3): 415

Pollutant: Isopropyl alcohol

TLV (ug/m3): 491,534

Maximum Average Hourly Emission Rate (lbs/hr): 9.94

Predicted 1-Hour Maximum Ground-Level Concentration at 112 m (ug/m3): 667

MAGLC (ug/m3): 11,703

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 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 still satisfied. If, upon evaluation, the permittee determines that the "Air Toxics Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying 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 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) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

5. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the emissions unit, if changed as outlined above, will still 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. where 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 Cleveland Division of Air Quality (Cleveland DAQ) in writing of any monthly record showing the use of noncomplying coatings, fountain solutions and/or inks (i.e., the VOC content limitation in term A.1). The notification shall include a copy of such records and shall be sent to the Cleveland DAQ within

30 days after the exceedance occurs.

2. The permittee shall submit annual reports that include the total VOC emissions, in tons for this emissions unit. These reports shall be submitted by April 15 of each year and shall cover the previous calendar year.
3. The permittee shall submit deviation (excursion) reports which include the following information for the facility (see A.2.c) :
 - a. an identification of each month during which the rolling, 12-month individual HAP emissions exceed 9.9 tons/yr based on a rolling, 12-month summation;
 - b. an identification of each month during which the rolling, 12-month combined HAP emissions exceed 24.9 tons/yr based on a rolling, 12-month summation; and
 - c. an identification of each month during which the rolling, 12-month OC/VOC emissions exceed 97.1 tons/yr based on a rolling, 12-month summation.

The deviation (excursion) report shall be sent to the Cleveland DAQ within 30 days following the end of the calendar month during which they were identified and shall include a copy of any such record; an identification of the probable cause for such deviation; and any corrective actions or preventative measures which have been, or will be taken, to correct the situation.

4. The permittee shall submit deviation (excursion) reports which identify any exceedance of the rolling, 12-month material usage limitation for the emissions unit.

The deviation (excursion) report shall be sent to the Cleveland DAQ within 30 days following the end of the calendar month during which they were identified and shall include a copy of any such record; an identification of the probable cause for such deviation; and any corrective actions or preventative measures which have been, or will be taken, to correct the situation.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):
Emission Limitation:
VOC content of the coatings and inks employed in this emissions unit shall not exceed 0.4 pound VOC per gallon, as applied as a monthly, volume-weighted average.

Applicable Compliance Method:

USEPA Method 24 (for coatings) or 24A (for flexographic and rotogravure printing inks and related coatings) or formulation data shall be used to determine the organic compound and volatile organic compound contents of the coatings and inks.

Compliance with the monthly, volume-weighted average VOC content limitation shall be based on the recordkeeping requirements established in section C.2.

Emission Limitation:

9.1 tons/year of VOC emissions from inks/coatings/ fountain solutions and cleanup material, as a rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be determined by the record keeping in section C.2.

Emission Limitation:

30.2 pounds/hour of VOC emissions from inks/coatings/ fountain solutions

Applicable Compliance Method:

The hourly VOC emission rate for inks/coatings/fountain solutions is based on the sum of the emissions unit's potential to emit. Therefore, monitoring, recordkeeping and reporting are not required to demonstrate compliance with this limit. The potential to emit was calculated by multiplying the maximum hourly square foot production rate by the maximum coating/ink/ fountain solution rate per square foot divided by the minimum density of the inks/coatings/fountain solutions and multiplying by the allowable VOC content of the coatings/inks/ fountain solutions.

0.276 million square feet/hour by 900 lbs coating/million square feet divided by 8.70 lbs/gal coating multiplied by 0.40 lbs/gal VOC content for the coatings.

0.276 million square feet/hour by 250 lbs ink/million square feet divided by 9.18 lbs/gal ink multiplied by 0.40 lbs/gal VOC content for the ink.

0.276 million square feet/hour by 610 lbs fountain solution/million square feet divided by 8.85 lbs/gal fountain solution multiplied by 0.83 lbs/gal VOC content for the fountain solution.

Emission Limitation:

97.1 tons OC/VOC per rolling, 12-month period for this facility

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in section C.

Emission Limitation:

9.9 tons individual HAP emissions per rolling, 12-month period for this facility

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in section C.

Emission Limitation:

24.9 tons combined HAP emissions per rolling, 12-month period for this facility

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in section C.

Emission Limitation:

The VOC content of the fountain solution employed in this emissions unit shall not exceed 0.83 pound VOC per gallon, as applied, as a monthly, volume-weighted average.

Applicable Compliance Method:

USEPA Method 24 or 24A or formulation data shall be used to determine the volatile organic compound contents of the fountain solution.

2. Formulation data shall be used to determine the VOC contents of the cleanup materials.

F. **Miscellaneous Requirements**

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