

Facility ID: 1409010838 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: 1409010838 Emissions Unit ID: R009 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>
R009-Lithographic printing press 160	OAC rule 3745-31-05 (A)(3) (PTI 14-05083)	Organic Compound (OC) emissions shall not exceed 21.8 pounds per hour and 31.0 tons per year, based upon a rolling, 12-month summation on any days when no photochemically reactive materials (PRMs) are employed in this emissions unit.
	OAC rule 3745-21-07 (G)(2)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2) and OAC rule 3745-35-07(B). Organic Compound (OC) emissions shall not exceed 8 pounds per hour and 40 pounds per day on any day when PRMs are employed in this emissions unit.
	OAC rule 3745-35-07(B) (1) (Synthetic Minor to Avoid Title V)	See terms A.2.b and B.1 - B.7.

2. Additional Terms and Conditions

- (a) Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the ink, coating, fountain solution additives and cleanup materials usage limits and organic compounds (OC) content limits. 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 (Flexographic Printing Press), R005(Lithographic Printing Press #150), R008 (Finishing Department), R009 (Lithographic Printing Press #160) including any de minimis air contaminant sources as defined in OAC rule 3745-15-05, and any permanent exemption air contaminant sources installed subsequent to the issuance of this permit 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. The hourly emission limitation when employing non-photochemically reactive materials outlined in term A.1. are based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with these limits.

B. Operational Restrictions

1. The maximum annual ink usage for this emissions unit shall not exceed 120,800 pounds per year based upon a rolling, 12-month summation of the ink usage figures.
2. The OC content of the inks shall not exceed 30 percent by weight as a rolling, 12-month weighted average.
3. The maximum annual coating usage for this emissions unit shall not exceed 272,500 pounds per year based upon a rolling, 12-month summation of the coating usage figures.
4. The OC content of the coatings shall not exceed 10 percent by weight as a rolling, 12-month weighted average.
5. The maximum annual fountain solution additive usage for this emissions unit shall not exceed 14,800 pounds per year based upon a rolling, 12-month summation of the fountain solution additive usage figures.
6. The OC content of the fountain solution additives shall not exceed 35 percent by weight as a rolling, 12-month weighted average.

7. The maximum annual cleanup material usage for this emissions unit shall not exceed 27,500 pounds per year based upon a rolling, 12-month summation of the cleanup material usage figures.
 8. The permittee shall operate the chiller system on emissions unit R009 to refrigerate the fountain solution while the press is running production.
 9. The permittee shall store all spent OC containing cleaning materials and cleaning rags in covered containers.
 10. The annual ink, coating, fountain solution and cleanup material usage limitations expressed in terms B.1, B.3, B.5 and B.7 for emissions unit R009 may be exceeded provided the rolling, 12-month total OC limitation of 31.0 tons per year stated in Part A of the Special Terms and Conditions is not exceeded.
- C. Monitoring and/or Record Keeping Requirements**
1. The permittee shall maintain monthly records which list the following information for emissions unit R009:
 - a. The company identification of each ink, coating, fountain solution additive and cleanup material employed.
 - b. The amount of each ink, coating, fountain solution additive and cleanup material employed in pounds.
 - c. The weight percent OC content of each ink, coating and fountain solution additive.
 - d. The monthly weighted average OC content (in percent by wt.) for inks, coatings and fountain solution additives.
 - e. The monthly OC emissions in pounds or tons from this emissions units based on a 95% organic solvent retention for inks and 100% organic solvent evaporation for coatings, fountain solution additives and cleanup material. If the permittee sends waste collected for waste disposal, the permittee may take a credit for that in emissions calculations provided that the permittee keeps adequate records to calculate the total amount of OCs in the waste disposed of from this emissions unit.
 - f. The updated rolling, 12-month total usage for the inks, coatings, fountain solution additives and cleanup materials in pounds per year.
 - g. The updated rolling, 12-month weighted average OC content (in percent by wt.) for inks, coatings and fountain solution additives.
 - h. The updated rolling, 12-month total OC emissions in tons per year.
 2. The permittee shall collect and record the following information for each day that a photochemically reactive material is used in emissions unit R009:
 - a. The company identification for each ink, coating, fountain solution additive and cleanup material employed.
 - b. Documentation on whether or not each ink, coating, fountain solution additive and cleanup material is a photochemically reactive material.
 - c. The number of pounds of each ink, coating, fountain solution additive and cleanup material employed.
 - d. The weight percent OC content of each ink, coating, fountain solution additive and cleanup material.
 - e. The OC emission rate for each ink, coating, fountain solution additive and cleanup material, in pounds per day; based on a 95% organic solvent retention for inks and 100% organic solvent evaporation for coatings, fountain solution and cleanup material. If the permittee sends waste collected for waste disposal, the permittee may take a credit for that in emissions calculations provided that the permittee keeps adequate records to calculate the total amount of OCs in the waste disposed off from this emissions unit.
 - f. The total OC emissions rate from all inks, coatings, fountain solution additive and cleanup material, in pounds per day.
 - g. The total number of hours the emissions unit was in operation.
 - h. The average hourly OC emission rate for all inks, coatings, fountain solution additives and cleanup materials, i.e., (f)/(g), in pounds per hour (average).

[Note: The information must be for the inks, coatings and fountain solution, as employed, including any thinning solvents added at the emissions unit. Also, the definitions of "photochemically reactive" and "non-photochemically" are based upon OAC rule 3745-21-01(C)(5).]
 3. The permit to install for this emissions unit R009 was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system (if applicable), 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. 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 1: 2-Butoxyethanol
 TLV (ug/m3): 96,663
 Maximum Hourly Emission Rate (lbs/hr): 0.053
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3.3
 MAGLC (ug/m3): 2301

Pollutant 2: Ammonia
 TLV (ug/m3): 17,400

Maximum Hourly Emission Rate (lbs/hr): 0.083
 Predicted 1-Hour Maximum Ground-Level
 Concentration (ug/m3): 5.1
 MAGLC (ug/m3): 414

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.
4. The permittee shall collect and record the following information each month for emissions units K001 (Flexographic Printing Press), R005(Lithographic Printing Press #150), R008 (Finishing Department), R009 (Lithographic Printing Press #160) including any de minimis air contaminant sources as defined in OAC rule 3745-15-05, and any permanent exemption air contaminant sources installed subsequent to the issuance of this permit:
- a. The name and identification number of each ink, coating, fountain solution additive and cleanup material employed.
 - b. The individual Hazardous Air Pollutant (HAP) content for each HAP per pound of each ink, coating, fountain solution additive and cleanup material, in weight percent of individual HAP.
 - c. The total combined HAP content of each ink, coating, fountain solution additive and cleanup material employed in weight percent of combined HAPs (sum all the individual HAP contents from b).
 - d. The number of pounds of each ink, coating, fountain solution additive and cleanup material employed.
 - e. The total individual HAP emissions for each HAP from all inks, coatings, fountain solution additives and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b times d) for each ink, coating, fountain solution additive and cleanup material employed].
 - f. The total combined HAP emissions from all inks, coatings, fountain solution additives and cleanup materials employed, in pounds or tons per month [the sum of c times d) for each ink, coating, fountain solution additive and cleanup material employed].
 - g. The updated rolling, 12- month total of the individual HAP emissions for each HAP from all inks, coatings, fountain solution additives and cleanup materials employed, in pounds or tons.
 - h. The updated rolling, 12-month total of the total combined HAP emissions from all inks, coatings, fountain solution additives and cleanup materials employed, in pounds or tons.
- (A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on an emissions unit - by - emissions unit basis.)

D. Reporting Requirements

1. The permittee shall submit semi-annual reports which include the following information:
 - a. The updated rolling, 12-month total usage for inks, coatings, fountain solution additives and cleanup materials in pounds per year; for each month.
 - b. The updated rolling, 12- month weighted average OC content (in percent by wt.) for inks, coatings and fountain solution additives; for each month.

c. The updated rolling, 12- month total OC emissions in tons per year; for each month.

These reports shall be submitted by August 15 and February 15 of each year and shall cover the previous six calendar months (January to June and July to December, respectively).

2. The permittee shall notify the Director of any record showing that this emissions unit has exceeded the 8 pound per hour and/or the 40 pound per day emission limitations and/or any of the operational limitations outlined in Section B of this permit. A copy of such record shall be sent to the Director within 30 days after the exceedance occurs.
3. The permittee shall notify the Hamilton County Department of Environmental Services of any exceedance of the HAP emissions limitations set forth in term A.2.b. The permittee shall submit annual reports which identify all exceedances of these limitations, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year. If no exceedances occurred during the reporting period then a report is required stating so.

E. Testing Requirements

1. Compliance with the usage limitations in term B.1, B.3, B.5 and B.7 shall be demonstrated by the record keeping in term C.1.
2. Compliance with the weight percent OC content limitations in term B.2, B.4 and B.6 shall be demonstrated by the record keeping in term C.1.
3. Compliance with the HAPs emission limitations in term A.2.c shall be demonstrated by the record keeping requirements specified in term C.4.
4. Compliance with 8 pounds per hour and 40 pounds per day emission limitations shall be demonstrated by the record keeping in term C.2.
5. Compliance with the annual OC emission limit of 31.0 TPY shall be demonstrated by using the following calculations:

Ink- $A \times B \times C / 2000 = \text{TPY OC from inks}$

where:

A = pounds of ink employed = 120,800

B = weight percent OC = 0.30

C = retention factor = (1-.95)

Coatings

$A \times B / 2000 = \text{TPY OC from coatings}$

where:

A = pounds of coating = 272,500

B = weight percent OC = 0.10

Fountain Solution

$A \times B / 2000 = \text{TPY OC from fountain solution}$

where:

A = pounds of fountain solution = 14,500

B = weight percent OC = 0.35

Cleanup Material

$A \times B / 2000 = \text{TPY OC from cleanup material}$

where:

A = pounds of cleanup material = 27,500

B = weight percent OC = 1.0

Annual OC emissions can be calculated by summing the TPY emissions from inks, coatings, fountain solutions and cleanup materials.

F. Miscellaneous Requirements

1. The following terms and conditions of this permit are federally enforceable: A., B., C.1., C.2., and C.4, D and E.