Facility ID: 1431074035 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.

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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
7-color sheet-fed offset press with starch application and fabric filter	OAC rule 3745-31-05(A)(3) (PTI 14-4814)	154.91 lbs/day* of organic compound (OC) 28.27 tons per year (TPY) of OC 17.15 lbs/day* of ammonia 3.13 TPY of ammonia * The daily emission limitations are based upon the emissions unit's potential to emit. Therefore, no daily records are required to demonstrate compliance with these limits. 0.5 lb/month of particulate emission (PE) 0.5 lb/month of particulate matter with a diameter of 10 microns or less (PM10) 0.003 TPY of PE 0.003 TPY of PM10 See terms and conditions A.2.b through A.2.f below.
	OAC rule 3745-21-07(G)(2)	exempt (See term and condition A.2.a below.)
	OAC rule 3745-17-07(A)(1)	See term and condition A.2.g below.
	OAC rule 3745-17-07(B)(1)	See term and condition A.2.h below.
	OAC rule 3745-17-08(B)	Reasonably available control measures shall be employed to minimize or eliminate visible particulate emissions of fugitive dust. See term and condition A.2.i below.
	OAC rule 3745-17-11(B)(1)	The emission limitation established by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**

   (a) This emissions unit is exempt from the requirements of this rule because the materials employed by this unit do not contain any photochemically reactive material as defined in OAC rule 3745-21-01(C)(5). The use of photochemically reactive materials is prohibited.
   The OC content of each ink employed in this emissions unit shall not exceed 1.72 pounds per gallon, as applied.
   The OC content of each fountain solution employed in this emissions unit shall not exceed 0.87 pound per gallon, as applied.
   The OC content of each coating employed in this emissions unit shall not exceed 0.352 pound per gallon, as applied.
   The OC content of each cleanup material employed in this emissions unit shall not exceed 7.3 pounds per gallon.
   PE/PM10 emissions shall be captured to the extent possible using good engineering practice and such captured emissions shall be vented to a fabric filter.

Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
Visible particulate emissions of fugitive dust shall not exceed 20 percent opacity, as a three-minute average, except as specified by rule.
The permittee shall maintain the existing capture system to minimize or eliminate visible particulate emissions of fugitive dust.

B. **Operational Restrictions**

1. The maximum annual material usages for this emissions unit shall not exceed 109,500 gallons of ink, 35,566 gallons of coating, 17,958 gallons of fountain solution, and 5,201 gallons of cleanup material.

2. The annual usage rate of Howson Profit Plus Plate Cleaner (DuPont registry number DP-92-28-8) shall not exceed 25 gallons per year.

3. To ensure that the evaporative OC loss from the hand cleanup process does not exceed more than 50% (by weight) from solvents having a vapor pressure of 10 mmHg (0.19 psia) or lower at 20 degrees Celsius (68 degrees Fahrenheit), all rags utilized in the cleanup process shall be stored in containers with tight-fitting covers.

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

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

a. the company identification for each ink, coating, fountain solution, starch and cleanup material employed;

b. a record of each ink, coating, fountain solution and cleanup material employed in this emissions unit indicating whether or not the ink, coating, fountain solution or cleanup material is a photochemically reactive material as identified in OAC rule 3745-21-01(C)(5);

c. the number of gallons of each ink employed;

d. the number of gallons of each coating employed;

e. the number of gallons of each fountain solution employed;

f. the number of gallons of each cleanup material employed;

g. the OC content of each ink employed, in pounds per gallon;

h. the OC content of each coating employed, in pounds per gallon;

i. the OC content of each fountain solution employed, in pounds per gallon;

j. the OC content of each cleanup material employed, in pounds per gallon;
k. the number of pounds of starch employed;

l. the PE/PM10 emissions [(k) x (0.10 lb of PE/PM10 per pound of starch) x one minus the fractional overall control efficiency (0.90) of the fabric filter]; and

m. the number of gallons of Howson Profit Plus Cleaner employed.

Note: The ink information must be for the inks, as applied, including any thinning solvents or catalysts added at the emissions unit.

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

a. the total amount, in gallons, of Howson Profit Plus Cleaner employed;

b. the total amount, in gallons, of all inks employed (summation of C.1.c for the calendar year);

c. the total amount, in gallons, of all coatings employed (the summation of C.1.d for the calendar year);

d. the total amount, in gallons, of all fountain solution employed (the summation of C.1.e for the calendar year); and

e. the total amount, in gallons, of all cleanup material employed (the summation of C.1.f for the calendar year).

3. The permit to install for this emissions unit was evaluated based on the actual materials employed 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(s):

Pollutant: Aliphatic Hydrocarbon
TLV (ug/m3): 10,000
Maximum Hourly Emission Rate (lbs/hr): 0.013
Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 155
MAGLC (ug/m3): 238

Pollutant: Ethylene Glycol
TLV (ug/m3): 100,000

Maximum Hourly Emission Rate (lbs/hr): 2.47
Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 303.9
MAGLC (ug/m3): 2,381

Pollutant: 2-Butoxy Ethanol
TLV (ug/m3): 120,800
Maximum Hourly Emission Rate (lbs/hr): 2.47
Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 303.9
MAGLC (ug/m3): 2,876
Pollutant: Acetic Acid
TLV (ug/m3): 24,540
Maximum Hourly Emission Rate (lbs/hr): 2.47
Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3):303.9
MAGLC (ug/m3): 584

Pollutant: Ammonia
TLV (ug/m3): 17,410
Maximum Hourly Emission Rate (lbs/hr): 0.71
Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 101.1
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 use of noncomplying inks, coatings, fountain solutions or cleanup materials (i.e., for OC content). In addition, the permittee shall notify the Hamilton County of Environmental Services in writing of any exceedance of the monthly PE/PM10 emission limitation. 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 annual reports that specify the amount, in gallons, for all inks, coatings, fountain solutions, cleanup materials, and the Howson Profit Plus Plate Cleaner, employed in this emissions unit during the previous calendar year. These reports shall be submitted by January 31 of each year.

3. The permittee shall notify the Hamilton County Department of Environmental Services in writing identifying each day during which any photochemically reactive material [as defined in OAC rule 3745-21-01(C)(5)] was employed in this emissions unit. This report shall identify the cause for the use of the photochemically reactive material(s) and the estimated total quantity of material(s) emitted each such day. This report shall be submitted to the Hamilton County Department of Environmental Services within 45 days after the occurrence.

E. **Testing Requirements**

1. Compliance with the OC emission limitations, OC content limitations, PE/PM10 emission limitations, visible particulate emission limitations, material usage limitations, and the ammonia emission limitations shall be determined by the following methods:

a. OC Emission Limitations: 154.91 pounds of OC per day; 28.27 TPY of OC

Applicable Compliance Method: Compliance with the daily OC emission limitation has been determined by

considering the maximum amount of ink, coating, fountain solution, and cleanup material to be employed, in gallons on a daily basis, and multiplied by each material's maximum OC content, in pounds/gallon. Compliance with the annual OC emission limitation is ensured if compliance is maintained with the OC content limitations of each material and the annual material usage restrictions.

b. OC Content Limitations: 1.72 lbs/gallon for inks; 0.87 lb/gallon for fountain solution; 0.352 lb/gallon for coatings; 7.3 lbs/gallon for cleanup materials

Applicable Compliance Method: Compliance with the OC content limitations shall be determined by the record keeping performed pursuant to Section C.1. Formulation data or U.S. EPA Method 24 (for coatings) or 24A (for flexographic and rotogravure printing inks and related coatings) shall be used to determine the OC contents of the inks, fountain solutions, coatings and cleanup materials.

c. PE/PM10 Emission Limitations: 0.5 lb/month of PE; 0.5 lb/month of PM10; 0.003 TPY of PE; 0.003 TPY of PM10

Applicable Compliance Method: Compliance with the monthly PE/PM10 emission limitations shall be determined by the record keeping performed pursuant to Section C.1. Compliance with the annual PE/PM10 emission limitations is ensured if compliance is maintained with the monthly PE/PM10 emission limitations.
d. Visible Particulate Emission Limitation: visible particulate emissions shall not exceed 20% opacity, as a three-minute average, except as specified by rule

Applicable Compliance Method: Compliance with the visible particulate emission limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(3).

e. Visible Particulate Emission Limitation: visible particulate emissions shall not exceed 20% opacity, as a six-minute average, except as specified by rule

Applicable Compliance Method: Compliance with the visible particulate emission limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

f. Material Usage Limitations: 25 gallons/year of the Howson Plus Plate Cleaner; 109,500 gallons/year for all inks, 35,566 gallons/year for all coatings; 17,958 gallons/year for all fountain solutions; 5,201 gallons/year for all cleanup materials

Applicable Compliance Method: Compliance with the annual material usage limitations shall be determined by the record keeping performed pursuant to Section C.2.
g. Ammonia Emission Limitations: 17.15 lbs/day of ammonia; 3.13 TPY of ammonia

Applicable Compliance Method: Compliance with the daily ammonia emission limitation has been determined by considering the maximum amount of ammonia, in pounds, contained in a gallon of coating and multiplied by the maximum number of gallons of coating that could be employed in a 24-hour period. Compliance with the annual ammonia emission limitation is ensured if compliance is maintained with the daily ammonia emission limitation.

F. **Miscellaneous Requirements**

1. None