Facility ID: 0536010011 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: 0536010011 Emissions Unit ID: R001 Issuance type: Final State Permit To Operate

Go to the top of this document

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
5-unit full web offset heat set printing press, with catalytic incinerator	OAC rule 3745-21-07(G)(2) See section F.	The emissions of organic compounds (OC) shall be reduced by at least 85%, by weight, and shall not exceed 39.02 lbs OC/day, excluding the non-photochemically reactive cleanup materials. The lbs/day limitation is equivalent to the 85% overall reduction based on the usage rates in the permittee's application and a 92% destruction efficiency for the incinerator. The catalytic incinerator shall have a destruction efficiency of not less than 92%.
	OAC rule 3745-31-05 See section F.	OC emissions shall not exceed 25.2 lbs/day for the non-photochemically reactive cleanup materials. OC emissions shall not exceed 4.6 TPY OC for the non-photochemically reactive cleanup materials. OC emissions shall not exceed 7.12 TPY OC, excluding the non-photochemically reactive cleanup materials. Natural gas combustion emissions shall not exceed the following: 0.10 TPY OC 0.10 TPY PM 0.02 TPY SO2 1.95 TPY NOx 0.40 TPY CO
	OAC rule 3745-21-07(G)(6)	See 2.a.
	OAC rule 3745-17-11	See 2.b.
	OAC rule 3745-17-07 See section F.	Opacity of the emissions coming from the incinerator stack shall not exceed 20%, except as provided by rule.

2. **Additional Terms and Conditions**

   (a) The limit based on this rule is less stringent than the limit based on OAC rule 3745-31-05. This emissions unit is exempt from any limit in this rule because it is located in Highland County, which exempts it from Table I, and the uncontrolled mass emission rate is less than 10 pounds per hour, which exempts it from Figure II.

B. **Operational Restrictions**

1. The dryer oven for this emissions unit shall only employ natural gas.

2. The maximum annual ink usage for this emissions unit shall not exceed 255,500 pounds per year, based upon a

rolling, 12-month summation of the ink usage. The OC content of the inks employed in this emissions unit shall not exceed 40 % by weight.

3. The maximum fountain solution usage in this emissions unit shall not exceed 3285 gallons per year, based upon a rolling, 12-month summation of the fountain solution usage. The OC content of the fountain solutions employed in this emissions unit shall not exceed 1.9 pounds per gallon.

4. The maximum hand wash cleanup material usage in this emissions unit shall not exceed 2555 gallons per year, based upon a rolling, 12-month summation of the hand wash cleanup material usage. The OC content of the hand wash cleanup materials employed in this emissions unit shall not exceed 7.2 pounds per gallon, excluding water.

5. The maximum annual blanket wash cleanup material usage in this emissions unit shall not exceed 1204 gallons per year, based upon a rolling, 12-month summation of the blanket wash cleanup material usage. The OC content of the blanket wash cleanup materials employed in this emissions unit shall not exceed 7.2 pounds per gallon, excluding water.

6. The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 603 degrees Fahrenheit.

7. Any hand wash cleanup material employed in this emissions unit shall not be a photochemically reactive material as defined by OAC Rule 3745-21-01 (C)(5). This determination shall be made based on the actual formulation of the materials after any final in-plant reducing or thinning and prior to application of the materials.

8. The hand wash cleanup material is used to clean rollers, bankets, ink fountains, side frames and for other general purposes. The cleanup cloths shall be stored in closed containers.

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

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

   a. the company identification for each ink, fountain solution, and blanket wash/presswash cleanup material employed;
   b. the amount of each ink employed, in pounds;
   c. the number of gallons of each fountain solution and blanket wash cleanup material employed;
   d. the rolling, 12-month summations of all inks (in pounds), fountain solutions, blanket washes, and cleanup materials (in gallons),
   e. the OC content of each ink, in percent by weight;
   f. the OC content of each fountain solution and blanket wash cleanup material, in pounds per gallon;
   g. the total potential OC emission rate for all inks, in pounds and tons per month, i.e., the sum of (b)x(e) for all inks;
   h. the total potential OC emission rate for all fountain solutions, in pounds and tons per month, i.e., the sum of (c)x(f) for all fountain solutions;
   i. the total potential OC emission rate for all blanket wash cleanup materials, in pounds and tons per month, i.e., the sum of (c)x(f) for all blanket wash cleanup materials;
   j. the total uncontrolled (fugitive) emissions, in pounds, i.e., [(h)x0.3]+[(i)x0.6]*;
   k. the total controlled emissions from the incinerator, in pounds, i.e., [[(g)x0.8]+[(h)x0.7]+[(i)x0.4]]x[1-0.92]*;
   l. the total overall emissions (fugitive and controlled from the incinerator), in pounds, i.e., (j) + (k);
   m. the total number of days the emissions unit was in operation; and
   n. the average daily OC emission rate for all inks, fountain solutions and blanket wash cleanup materials, i.e., (l)/(m), in pounds per day average.

2. * Per DAPC guidance, the following assumptions will be used in calculating the OC emissions for this emissions unit: 20 percent (by weight) of the solvent in the inks is retained in the web after the dryer. The remaining 80 percent (by weight) of the OCs in the inks is vented to the catalytic incinerator. 30 percent of the fountain solution emissions is fugitive, and 70 percent is vented to the catalytic incinerator. For automatic blanket wash systems, 60 percent of the solvent is fugitive, and 40 percent is vented to the catalytic incinerator. A destruction efficiency of 92% shall be used for the calculations.

3. The permittee shall collect and record the following information monthly:

   a. the company identification for each hand wash cleanup material employed;

   b. the number of gallons of each hand wash cleanup material employed;

   c. the organic compound content of each hand wash cleanup material, in pounds per gallon;

   d. the total organic compound emission rate for all hand wash cleanup materials, in pounds and tons per month;

   e. the total number of days the emissions unit was in operation;

   f. the average daily organic compound emission rate for all hand wash cleanup materials, i.e., (d)/(e), in pounds per day (average).

   Per DAPC guidance, the cleanup operations can assume 50% of the solvent is retained in the cloths and 50% is emitted as fugitive, if the solvent has a vapor pressure of 10mm Hg or lower at 20 degrees Celsius (68 deg. F.).

4. The permittee shall operate and maintain continuous temperature monitors and recorder(s) which measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder(s) shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

   The permittee shall collect and record the following information each day:

a. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was less than 603 degrees Fahrenheit.

b. A log of the downtime for the control device and monitoring equipment, when the associated emissions unit was in operation.

D. **Reporting Requirements**

1. The permittee shall submit in writing, an annual report to the Director (appropriate District Office or local air agency) which specifies the total OC emissions, in tons, from this emissions unit for the previous calendar year. This report shall be submitted by January 31 of each year.

2. The permittee shall submit quarterly deviation (excursion) reports which include the following information:

a. all 3-hour blocks of time when the emissions unit was in operation during which the average temperature of the exhaust gases immediately before the catalyst bed was less than 603 degrees Fahrenheit;

b. deviation(s) of the above-mentioned material usage, OC content, and/or OC emission limitations.

3. The permittee shall submit quarterly summaries which include a log of the downtime for the capture (collection) system, control device and monitoring equipment, when the associated emissions unit was in operation. These summaries shall be submitted on the same time schedule as the deviation reports.

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):
Formulation data or USEPA Method 24A shall be used to determine the organic compound contents of the coatings and inks.
Emission Limitation-
The emissions of organic materials shall be reduced by more than 85%, by weight.

Applicable Compliance Method-
Compliance shall be based on the daily emission rates recorded and calculated in Section C.1 and the emission tests specified in 2.a of this section.
Emission Limitation-
The catalytic incinerator shall have a destruction efficiency of not less than 92%.

Applicable Compliance Method-
See testing requirement 2.a. for the method of determining compliance with the catalytic incinerator destruction efficiency.
Emission Limitation-
39.02 lbs OC/day, excluding the non-photochemically reactive cleanup material s

25.2 lbs OC/day, for the non-photochemically reactive cleanup materials

Applicable Compliance Method-
Compliance shall be based upon the record keeping specified in Sections C. 1 and 3.
Emission Limitation-
4.6 TPY OC, excluding the non-photochemically reactive cleanup materials
7.12 TPY OC, for the non-photochemically reactive cleanup materials;

Applicable Compliance Method-
Compliance shall be based upon the record keeping specified in Sections C. 1. and 3, and shall be the sum of the monthly OC emission rates for the calendar year.
Emission Limitation-
0.10 TPY OC

Applicable Compliance Method-
Compliance shall be based upon the AP-42 emission factor of 5.3 lbs VOC/MMCF multiplied by the annual natural gas usage, in cubic feet, and divided by 2000 lbs/ton.
Emission Limitation-
0.10 TPY PM

Applicable Compliance Method-
Compliance shall be based upon the AP-42 emission factor of 5 lbs PM/MMCF multiplied by the annual natural gas usage, in cubic feet, and divided by 2000 lbs/ton.
Emission Limitation-
0.02 TPY SO2

Applicable Compliance Method-
Compliance shall be based upon the AP-42 emission factor of 0.6 lb SO2/MMCF multiplied by the annual natural gas usage, in cubic feet, and divided by 2000 lbs/ton.
Emission Limitation-
1.95 TPY NOx

Applicable Compliance Method-
Compliance shall be based upon the AP-42 emission factor of 100 lbs NOx/MMCF multiplied by the annual natural gas usage, in cubic feet, and divided by 2000 lbs/ton.
Emission Limitation-
0.40 TPY CO

Applicable Compliance Method-
Compliance shall be based upon the AP-42 emission factor of 20 lbs CO/MMCF multiplied by the annual natural gas usage, in cubic feet, and divided by 2000 lbs/ton.
Emission Limitation-
20% opacity, except as provided by rule

Applicable Compliance Method-
Compliance shall be determined by visible emission evaluations performed in accordance with the procedures specified in USEPA Reference Method 9 (40CFR Part 60, Appendix A).

2. Emissions Testing Requirement:
The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

1. The emissions testing shall be conducted within 6 months prior to permit renewal.

2. The emissions testing shall be conducted to demonstrate compliance with the destruction efficiency limitation for organic compounds.

3. The following test method shall be employed to demonstrate compliance with the destruction efficiency limitation: for OC, Method 25 or 25A of 40 CFR Part 60, Appendix A. The test method which must be employed to demonstrate compliance with the destruction efficiency limitation for OC is specified below.

4. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

5. The destruction efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
Not later than 30 days prior to the proposed test date(s), this facility shall submit an "Intent to Test" notification. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or Local Air Agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or Local Air Agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information regarding the emissions unit operating parameters. A comprehensive written report on the results of the emissions tests shall be submitted to the appropriate Ohio EPA District Office or Local Air Agency within 30 days following completion of the test(s).

F. **Miscellaneous Requirements**

1. The following terms and conditions shall supersede all the air pollution control requirements for this emissions unit contained in permit to install #05-7092, as issued on June 28, 1995: A. 1., B. 4., 5., 6., 7., 8., C., D. and E.