

Facility ID: 1431370249 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: 1431370249 Emissions Unit ID: R022 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>
R022-heatset web offset press w/ catalytic incinerator	OAC rule 3745-31-05(A)(3) (PTI 14-1843)	<p>Volatile Organic Compound (VOC) emissions shall not exceed 1.3 pounds per hour, excluding cleanup emissions.</p> <p>Volatile Organic Compound (VOC) emissions shall not exceed 5.65 tons per year (including cleanup).</p> <p>See terms A.2.a through A.2.d. See sections B.1 and B.2.</p>

### 2. Additional Terms and Conditions

- (a) The VOC content of each ink and coating employed in this emissions unit shall not exceed 29%, by volume.  
The hourly VOC limitation of 1.3 lbs/hr is based upon the emission unit's Potential to Emit (PTE). Therefore, no hourly records are required to demonstrate compliance with this limitation.  
The permittee shall operate a catalytic incinerator on this emissions unit with a minimum control efficiency of 90%.  
Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the material usage limitations, VOC content limitation and use of a catalytic incinerator with a minimum control efficiency of 90%.

### B. Operational Restrictions

1. The material usage rate for this emissions unit shall not exceed the following:
  - a. 5.6 gallons of ink per hour and 24,528 gallons of ink per year; and
  - b. 760 gallons per year of cleanup material.
2. The catalytic incinerator shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The conversion efficiency of the catalyst, as determined in an annual catalyst activity test, shall be sufficient to meet the destruction efficiency and control efficiency requirements of this permit at a test temperature that is equal to that temperature at which the inlet to the catalyst bed is set. Solvent loading during the catalyst activity test shall be consistent with the test laboratory's normal testing protocol.

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

1. The permittee shall collect and record the following information for each month for this emissions unit:
  - a. The company identification of each coating, ink and cleanup material employed.
  - b. Whether or not each cleanup material employed is a photochemically reactive material.
  - c. The number of gallons of each coating, ink and cleanup material employed.
  - d. The VOC content of each coating, ink and cleanup material employed, in pounds per gallon (and in per cent, by volume, for each coating and ink).
  - e. The total VOC emissions for all the inks, coatings and cleanup materials employed .

[Note: the information must be for the coatings inks as employed, including any thinning solvents added at the emissions unit.]

2. The permittee shall maintain annual records of the following information for this emissions unit:
  - a. The total number of gallons of all the coatings, inks and cleanup materials employed. [summation of term C.1.c for all months of the calendar year].
  - b. The total VOC emissions from all coatings, inks, and cleanup materials, in tons [summation of term C.1.e for the calendar year].
3. The permittee shall perform a preventative maintenance inspection of the catalytic incinerator on an annual basis to evaluate the performance of the catalyst bed. Each inspection shall consist of internal and visual inspections in accordance with the manufacturer's recommendations, and shall include a physical inspection of the unit and all of the associated equipment, including but not limited to burners, controls, dampers, valves, and monitoring and recording equipment. Repair and replacement of equipment and the catalyst shall be performed as determined by the inspection. During each annual inspection a sample of the catalyst material shall be collected from the catalyst bed and used to perform a catalyst activity test. The permittee shall maintain a record of the results of each annual inspection and the results of each annual catalyst activity test.

The permittee shall also perform weekly inspections of the external integrity of the catalytic incinerator. Records shall be maintained of the weekly inspections and the date(s) of catalyst replacement; and if only partial, the amount or percent of the total catalyst replaced.

**D. Reporting Requirements**

1. The permittee shall submit annual reports that summarize the annual coating, ink, and cleanup material usage, in gallons, and VOC emissions, in tons, for the calendar year. These reports shall be submitted by January 31 of each year and cover the previous calendar year.
2. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any daily record showing the use of noncomplying inks (i.e., for VOC content). The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.
3. The permittee shall submit annual reports on the results of the catalyst activity tests and a summary of the results of the annual inspection of the internal integrity of the catalytic incinerator. These reports shall be submitted within 45 days after the annual catalyst activity test is performed.
4. The permittee shall submit deviation (excursion) reports that identify any time periods when the emissions unit(s) was/were in operation and the VOC emissions were not vented to the catalytic incinerator. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

1. Emissions Limitation:  
Volatile Organic Compound (VOC) emissions shall not exceed 1.3 pounds per hour, excluding cleanup emissions.  
  
Applicable Compliance Method:  
The hourly VOC emission limitation was calculated using the following equation:  
  
$$5.6 \text{ gallons of ink/hour} \times 0.29 \text{ gallon of VOC/gallon of ink} \times 8 \text{ lbs of VOC/gallon of VOC} \times (1-.90) = 1.3 \text{ lbs of VOC/hr.}$$
2. Emissions Limitation:  
Volatile Organic Compound (VOC) emissions shall not exceed 5.65 tons per year (including cleanup).  
  
Applicable Compliance Method:  
The annual VOC emission limitation was calculated using the following equation:  
  
$$[24,528 \text{ gallons of ink/year} \times 0.29 \text{ gallon of VOC/gallon of ink} \times 8 \text{ lbs of VOC/gallon of VOC} \times (1-.90)] + [760 \text{ gallons of cleanup material/year} \times 7.34 \text{ lbs of VOC/gallon of cleanup material}] \times \text{ton}/2000 \text{ lbs} = 5.65 \text{ TPY}$$
  
  
Compliance with the annual OC emission limitation shall be determined by the record keeping requirements specified in Section C.2.
3. VOC Content Limitation:  
The VOC content of each ink and coating employed in this emissions unit shall not exceed 29%, by volume.  
  
Applicable Compliance Method:  
USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and related coatings, respectively. If, pursuant to Method 24 as outlined in 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.  
  
Compliance with the OC content limitations for coatings, inks, and cleanup materials shall be based upon the record keeping requirements specified in Section C.1.
4. Material usage Limitations:  
The ink material usage rate for this emissions unit shall not exceed 5.6 gallons of ink per hour and 24,528 gallons of ink per year.  
  
The cleanup material usage rate for this emissions unit shall not exceed 760 gallons per year.

## Applicable Compliance Method:

Compliance with the daily material usage restriction for ink shall be determined by the record keeping requirements specified in Section C.1.

Compliance with the annual material usage restrictions for ink and cleanup material shall be determined by the record keeping requirements specified in Section C.2.

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

- a. The emission testing shall be conducted 2.5 years prior to permit renewal.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for VOCs and the control efficiency of the catalytic incinerator.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Methods 1-4 and 25.

The control 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 3745-21-10 or an alternative test protocol approved by the Ohio EPA. 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.

d. The test(s) 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 the Hamilton County Department of Environmental Services.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. 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 test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Hamilton County Department of Environmental Services refusal to accept the results of the emission test(s).

f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

F. **Miscellaneous Requirements**

1. None