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: R005 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
R005 - Half Web 6 Unit Offset Lithographic Printing Press and Catalytic Afterburner	OAC rule 3745-31-05 and PTI 05-10691	98.9 pounds per day ("lbs/day") organic compounds ("OC"), including any fugitive emissions
		17.8 tons per year ("tpy") OC, including any fugitive emissions
		Natural gas combustion emissions shall not exceed the following for the catalytic incinerator serving this emissions unit: 0.08 lbs/day particulates 0.026 lbs/day SO2 4.32 lbs/day NOx 3.6 lbs/day CO
		This emissions unit shall incorporate the use of a catalytic incinerator with a destruction efficiency of at least 92%.
		See 2.a through 2.e below.
	OAC rule 3745-21-07(G)(2)	See 2.f below
	OAC rule 3745-21-07(G)(6)	See 2.f below
	OAC rule 3745-17-11	See 2.f below
	OAC rule 3745-17-07	Visible particulate emissions from the incinerator stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

2. **Additional Terms and Conditions**

   (a) Emissions from natural gas combustion in the dryer are exempt from regulation per OAC rule 3745-31-03(A)(1)(c).
   The OC content of the inks employed in this emissions unit shall not exceed 45%, by weight.
   The OC content of the fountain solution employed shall not exceed 1.97 pounds per gallon.
   The OC content of the organic cleanup material employed in this emissions unit shall not exceed 7.2 pounds per gallon.
   The controlled emissions from the incinerator shall not exceed 3.29 pounds per hour.
   The emission limitation required by this applicable rule is equal to or less stringent than the emissions limitation established by best available technology under OAC rule 3745-31-05.

B. **Operational Restrictions**

1. All OC emissions venting from the dryer oven shall be reduced by the use of the catalytic incinerator.

2. The dryer oven and catalytic incinerator for this emissions unit shall only employ natural gas as fuel.

3. The maximum ink usage in this emissions unit shall not exceed 113.6 pounds per hour and 2726.4 pounds per day.

4. The maximum fountain solution usage in this emissions unit shall not exceed 3.94 gallons per day and 1438 gallons per year.

5. The maximum organic cleanup material usage in this emissions unit shall not exceed 4.9 gallons per day and 1647 gallons per year.

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

1. The permittee shall operate and maintain continuous temperature monitors and record 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 device shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

2. The permittee shall collect and record the following information each month for this emissions unit:
the company identification for each ink, fountain solution and cleanup material employed in this emissions unit;
the total amount of each ink employed by this emissions unit, in pounds [monthly and year-to-date ("YTD")];
the total amount of each fountain solution employed in this emissions unit, in gallons (monthly and YTD);
the total amount of each cleanup material employed by this emissions unit, in gallons (monthly and YTD);
the OC content of each ink employed in this emissions unit, in percent by weight;
the OC content of each fountain solution employed in this emissions unit, in pounds per gallon;
the OC content of each cleanup material employed in this emissions unit, in pounds per gallon;
the total number of hours the emissions unit was in operation;
the total number of days the emissions unit was in operation;
the total amount of all inks employed by this emissions unit, i.e., the sum of the amounts of all inks listed in 2.b. (monthly);
the average amount of all inks employed by this emissions unit, in pounds per hour, i.e., 2.j. (monthly)/2.h.;
the average amount of all inks employed by this emissions unit, in pounds per day, i.e., 2.j. (monthly)/2.i.;
the average amount of all fountain solution employed by this emissions unit, in gallons per day, i.e., the sum of all the fountain solutions listed in 2.c. (monthly)/2.i.;
the average amount of all cleanup material employed by this emissions unit, in gallons per day, i.e., the sum of all the fountain solutions listed in 2.d. (monthly)/2.i.;
the uncontrolled OC emission rate from the dryer oven for all inks, in pounds, i.e., the sum of the amount of each ink listed in 2.b. (monthly) multiplied by its associated OC content listed in 2.e. multiplied by (0.8)*;
the uncontrolled OC emission rate from the dryer oven for all fountain solutions, in pounds, i.e., the sum of the amount of each fountain solution listed in 2.c. (monthly) multiplied by its associated OC content listed in 2.f. multiplied by (0.7)*;
the total uncontrolled average OC emission rate from the dryer oven, in pounds, i.e., (2.o. + 2.p.);
the uncontrolled average OC emission rate from the dryer oven, in lbs/day, i.e., (2.q./2.i.);
the total fugitive OC emission rate for all fountain solutions, in pounds, i.e., the sum of the amount of each fountain solution listed in 2.c. (monthly) multiplied by its associated OC content listed in 2.f. multiplied by (0.3)*;
the total fugitive OC emission rate for all cleanup materials, in pounds, i.e., the sum of the amount of each fountain solution listed in 2.d. (monthly) multiplied by its associated OC content listed in 2.g. multiplied by (0.5)*;
the total fugitive OC emission rate, in pounds, i.e., (2.s. + 2.t.);
the total fugitive OC emission rate, in lbs/day, i.e., (2.u. + 2.i.);
the total OC emissions from the incinerator, in pounds, i.e., 2.q. x (1 - 92%)** ;
the total average OC emissions from the incinerator, in pounds per hour, i.e., (2.w./2.h.);
the total average OC emissions from the incinerator, in lbs/day, i.e., (2.w./2.i.);
the total average OC emissions (fugitive and controlled), in lbs/day, i.e., (2.v. + 2.y.);
the total OC emissions (fugitive and controlled), in tons YTD, i.e., [the sum of (2.u. + 2.w.) for each past month of the calendar year]/(2000 lbs/ton);
the log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation;
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 325 degrees Fahrenheit; and
The permittee shall collect and record the following information each month for this emissions unit:

all 3-hour blocks of time (when the emissions unit was in operation at maximum production) during which the average temperature across the catalyst bed was less than 25 degrees Fahrenheit.

* 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. The cleanup operations can assume 50 percent of the solvent is retained in the cloths and 50 percent is emitted as fugitive, if the cleanup cloths are stored in a closed container and the solvent has a vapor pressure of 10 mmHg or lower at 20 degrees Celsius (68 deg. F.).

**A destruction efficiency of 92% was indicated on the permit to install application. The decimal equivalent to the latest destruction efficiency testing required in Section E.3. of this permit will be used in place of the 0.92 in this equation for future OC incinerator emissions calculations.

3. 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 325 degrees Fahrenheit (per the permit to install application).

4. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions unit is in operation at maximum operating conditions, shall not be less than 25 degrees Fahrenheit.

D. **Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports to Ohio EPA Southwest District Office ("SWDO") in writing of all records showing the following:

a. the use of ink(s) with greater than 45%, by weight, OC content;

b. the use of fountain solution(s) with greater than 1.97 pounds per gallon OC content; and/or

c. the use of cleanup material(s) with greater than 7.2 pounds per gallon OC content.

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 325 degrees Fahrenheit; and

all 3-hour blocks of time (when the emissions unit was in operation at maximum production) during which the average temperature difference across the catalyst bed was less than 25 degrees Fahrenheit.

2. The permittee shall notify Ohio EPA Southwest District Office in writing of each monthly record showing any exceedance of the following:

a. 98.9 lbs/day total average OC emissions;

b. 3.29 lbs/hour average OC emissions from the catalytic incinerator; and

c. 3.94 gallons per day of fountain solution, 4.9 gallons per day of organic cleanup material, and/or 113.6 pounds per hour or 2726.4 pounds per day of ink are employed.

The notification shall include a copy of such record and shall be sent to Ohio EPA, Southwest District Office ("SWDO"), within 30 days following the end of the calendar month.

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 by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarters.

4. The permittee shall submit annual reports to SWDO which specify the total tons of organic compound emissions from this emissions unit, as well as the number of gallons of fountain solution and OC containing cleanup material employed by this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

E. **Testing Requirements**

1. Compliance with the allowable emission limitations in Sections A.1. and A.2., and the operational restrictions in Sections B.1 through B.5 of these terms and conditions shall be determined in accordance with the following methods:
Emission Limitation

98.9 lbs/day total OC emissions, fugitive and controlled

Applicable Compliance Method

Compliance shall be demonstrated based upon the record keeping specified in Section C.2.z
Emission Limitation

17.8 tons per year total OC emissions, fugitive and controlled

Applicable Compliance Method

Compliance shall be demonstrated based upon the record keeping specified in Section C.2.za.
Emission Limitation

0.08 lbs/day particulates

Applicable Compliance Method

Compliance shall be demonstrated based upon the AP-42 particulate emission factor of 1.9 lbs of particulate/million standard cubic feet ("MSCF") multiplied by the annual natural gas usage, in standard cubic feet, and divided by the number of days the emissions unit was in operation during the year.
Emission Limitation

0.026 lbs/day SO2

Applicable Compliance Method

Compliance shall be demonstrated based upon the AP-42 particulate emission factor of 0.60 lb of SO2/MSCF multiplied by the annual natural gas usage, in standard cubic feet, and divided by the number of days the emissions unit was in operation during the year.
Emission Limitation

4.32 lbs/day NOx

Applicable Compliance Method

Compliance shall be demonstrated based upon the AP-42 particulate emission factor of 100.00 lbs of NOx/MSCF multiplied by the annual natural gas usage, in standard cubic feet, and divided by the number of days the emissions unit was in operation during the year.
Emission Limitation

3.6 lbs/day CO

Applicable Compliance Method

Compliance shall be demonstrated based upon the AP-42 particulate emission factor of 84.00 lbs of CO/MSCF multiplied by the annual natural gas usage, in standard cubic feet, and divided by the number of days the emissions unit was in operation during the year.

Emission Limitation

This emissions unit will incorporate the use of a catalytic incinerator with a destruction efficiency of at least 92%.

Applicable Compliance Method

Compliance shall be demonstrated based upon the stack testing procedure required in Section E.2.d.
Emission Limitation

20% opacity as a 6-minute average

Applicable Compliance Method

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

113.6 lbs/hr maximum average ink usage rate
2726.4 lbs/day maximum daily average ink usage rate

Applicable Compliance Method

Compliance shall be demonstrated based upon the record keeping specified in Sections C.2.k. and C.2.l.
Emission Limitation

3.94 gallons per day maximum average fountain solution usage rate
1438 gallons per year maximum fountain solution usage

Applicable Compliance Method

Compliance shall be demonstrated based upon the record keeping specified in Sections C.2.m. and C.2.c.
Emission Limitation

4.9 gallons per day maximum average OC cleanup material usage
1647 gallons per year maximum OC cleanup material usage

Applicable Compliance Method

Compliance shall be demonstrated based upon the record keeping specified in Sections C.2.n. and C.2.d.
l.Emission Limitation

3.29 lbs OC/hr (controlled, from the catalytic incinerator)

Applicable Compliance Method

Compliance shall be demonstrated based upon the record keeping specified in Section C.2.x.
m.Emission Limitation

The OC content of ink employed in this emissions unit shall not exceed 45% by weight.
The OC content of fountain solution employed in this emissions unit shall not exceed 1.97 pounds per gallon.
The OC content of the cleanup material employed in this emissions unit shall not exceed 7.2 pounds per gallon.

Applicable Compliance Method

Compliance shall be demonstrated based upon manufacturer formulation data or USEPA Method 24 testing.

2. 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 within 3 months after issuance of the permit.

b.The emission testing shall be conducted to demonstrate compliance with the destruction efficiency limitation for organic compounds emissions from this emissions unit.

c.The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Method 25 or 25A of 40 CFR Part 60, Appendix A, and the test methods and procedures specified in OAC rule 3745-21-10.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

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 local air agency.

3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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), 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 Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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.

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