

Facility ID: 1431154013 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.

- [Go to Part II for Emissions Unit R001](#)
- [Go to Part II for Emissions Unit R002](#)
- [Go to Part II for Emissions Unit R003](#)
- [Go to Part II for Emissions Unit R004](#)
- [Go to Part II for Emissions Unit R005](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 1431154013 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
R001 - 4-unit heatset web offset press with one 1.735 mmBtu/hour oven, controlled by regenerative thermal oxidizer.	OAC rule 3745-31-05(A)(3) (PTI 14-4606)	See terms A.2.b, A.2.c and A.2.d. Oven emissions: Nitrogen Oxide (NOx) emissions shall not exceed 0.1 lb/mmBtu. Nitrogen Oxide (NOx) emissions shall not exceed 4.15 tons per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined. Carbon Monoxide (CO) emissions shall not exceed 0.084 lb/mmBtu. Carbon Monoxide (CO) emissions shall not exceed 3.5 tons per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined. Sulfur Dioxide (SO2) emissions shall not exceed 0.0006 lb/mmBtu. Sulfur Dioxide (SO2) emissions shall not exceed 0.03 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined. Particulate Emissions (PE) and emissions of Particulate Matter less than 10 microns in diameter (PM10) shall not exceed 0.0076 lb/mmBtu. Particulate Emissions (PE) and emissions of Particulate Matter less than 10 microns in diameter (PM10) shall not exceed 0.32 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined. Organic Compound (OC) emissions shall not exceed 0.011 lb/mmBtu. Organic Compound (OC) emissions shall not exceed

0.46 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.

* The ovens associated with emissions units R001, R002, R003, R004 and R005 have a combined heat input rating of 9.471 mmBtu/hr.

OAC rule 3745-17-07(A)(1)

The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1). Visible particulate emissions from any stack associated with emissions units R001, R002, R003, R004 and R005 shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

OAC rule 3745-17-11

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

OAC rule 3745-21-07(G)

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- (a) Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the operation of a thermal oxidizer with a control efficiency equal to or greater than 95% for OC emissions, mass emission and material usage limitations.
 Combined organic compound emissions from the thermal oxidizer exhaust of emissions units R001, R002, R003, R004 and R005, combined, shall not exceed 28.17 pounds per day and 5.03 TPY.
 Total combined organic compound emissions from the thermal oxidizer and fugitive organic compound emissions associated with the fountain solution and blanket wash of emissions units R001, R002, R003, R004 and R005, combined shall not exceed 52.6 pounds per day and 8.58 TPY.
 The following organic compound contents shall not be exceeded for emissions units R001, R002, R003, R004 and R005:

- The organic compound content for ink shall not exceed 42% by weight.
- The organic compound content for fountain solution shall not exceed 6.1% by weight.
- The organic compound content for blanket wash shall not exceed 96.2% by weight.
- The permittee shall operate and maintain a thermal oxidizer capable of maintaining, at a minimum, a 95% (by weight of organic compounds) control efficiency at maximum hourly coating capacity from the oven exhaust for emissions units R001, R002, R003, R004 and R005.
- The daily emission limitations outlined in this permit are based upon the maximum hourly production/application rate at 24 hours per day. Therefore, no daily records are required to demonstrate compliance.

B. Operational Restrictions

- 1. The use of photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) is prohibited.
- 2. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when emissions units R001, R002, R003, R004 and R005 are in operation shall not be less than 1600 degrees Fahrenheit.
- 3. Ink, fountain solution and cleanup material usages for emissions units R001, R002, R003, R004 and R005 combined shall not exceed the following limits:
 Inks usage shall not exceed 562,175 pounds per year.
 Fountain solution usage shall not exceed 27,000 pounds per year.
 Blanket wash usage shall not exceed 10,350 pounds per year.

C. Monitoring and/or Record Keeping Requirements

- 1. The permittee shall collect and record the following information each month for emissions units R001, R002, R003, R004 and R005:
 - a. The company identification number of each ink, fountain solution and blanket wash employed in each emissions unit.
 - b. The percent (%) by weight of the organic compound content of each ink, fountain solution and blanket wash for each emissions unit.
 - c. The number of pounds of each ink, fountain solution and blanket wash employed in each emissions unit.
 - d. A record of each liquid organic material employed in each emission unit indicating whether or not the liquid organic material is photochemically reactive as defined in OAC rule 3745-21-01(C)(5).
- 2. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when emission units R001, R002, R003, R004 and R005 are in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
- 3. The permittee shall collect and record the following information for each day:
 - a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions units were in operation, was less than 1600 degrees Fahrenheit.
 - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the

associated emissions units were in operation.

4. The permit to install for emission units R001, R002, R003, R004 and R005 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, 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 (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 Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: stoddard solvent (petroleum distillates)

TLV (mg/m3): 525

Maximum Hourly Emission Rate (lbs/hr): (R001, R002, R003, R004 and R005) 1.114

Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 38.14

Maximum Acceptable Ground-Level Concentration (ug/m3): 12,500

Pollutant: ethylene glycol

TLV (mg/m3): 100

Maximum Hourly Emission Rate (lbs/hr): (R001, R002, R003, R004 and R005) 1.114

Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 38.14

Maximum Acceptable Ground-Level Concentration (ug/m3): 2381

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.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in Section B.2.
2. The permittee shall submit deviation reports which identify all exceedances of the OC content limitations in term A.2.d.
3. The permittee shall submit annual reports which specify the total usage in pounds from the inks, fountain solutions, and blanket wash (cleanup) for emissions units R001, R002, R003, R004 and R005 combined. These reports shall be submitted by February 15 of each year and shall cover the previous 12 calendar months.
4. 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 emissions units R001, R002, R003, R004 or R005. 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 exceedance occurs.
5. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Emission Limitation:

Total combined organic compound emissions from the thermal oxidizer and fugitive organic compound emissions associated with the fountain solution and blanket wash of emissions units R001, R002, R003, R004 and R005, combined shall not exceed 8.58 TPY.

Applicable Compliance Method:

The OC emission limitation was calculated by multiplying the material usage rate times the percent (%) by weight OC content times the retention factors consistent with the Ohio EPA Engineering Guide #56 times the control efficiency of the thermal oxidizer.

Ink emissions = 562,175 pounds of ink per year x 0.8 pound of ink to oven per pounds of ink per year x 0.42 pound of OC per pound of ink x (1-.95) x 1 ton per 2000 pounds = 4.72 TPY.

Fountain Solution stack emissions = 27,000 pounds of fountain solution per year x 0.7 pound of fountain solution to oven per pounds of fountain solution per year x 0.061 pound of OC per pound of fountain solution x (1-.95) x 1 ton per 2000 pounds = 0.029 TPY.

Fountain Solution fugitive emissions = 27,000 pounds of fountain solution per year x 0.3 pound of fugitive fountain solution emissions per pounds of fountain solution per year x 0.061 pound of OC per pound of fountain solution x 1 ton per 2000 pounds = 0.25 TPY.

Blanket Wash stack emissions = 10,350 pounds of Blanket Wash per year x 0.4 pound of Blanket Wash stack emissions per pound of Blanket Wash x 0.962 pound of OC per pound of Blanket Wash x (1-.95) x 1 ton per 2000 pounds = 0.099 TPY.

Blanket Wash fugitive emissions = 10,350 pounds of Blanket Wash per year x 0.6 pound of Blanket Wash stack emissions per pound of Blanket Wash x 0.962 pound of OC per pound of Blanket Wash x 1 ton per 2000 pounds = 2.99 TPY.

OC emissions from the thermal oxidizer = 9.471 mmBtu/hr x 0.011 pound of OC per mmBtu x 8760 hours per year x 1 ton per 2000 pounds = 0.46 TPY.

Total OC emissions are 4.72 TPY + 0.029 TPY + 0.099 TPY + 0.25 TPY + 2.99 TPY + 0.46 TPY = 8.58 TPY.

If testing is required to demonstrate compliance with the allowable OC mass emission rates, then testing shall be conducted using the methods outlined in Methods 1-4 and 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

If testing is required, the test(s) shall be conducted while emissions units R001, R002, R003, R004 and R005 are all operating at or near their maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

2. **Emission Limitation:**
Visible particulate emissions from any stack associated with emissions units R001, R002, R003, R004 and R005 shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:
Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).
3. Compliance with the usage limits outlined Section B.3 shall be demonstrated by the record keeping in Section C.1.
4. Compliance with the percent by weight OC content outlined in term A.2.d shall be demonstrated by the recordkeeping in Section C.1.
5. USEPA Methods 24 and 24A shall be used to determine the OC 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.
6. **Emission Limitation:**
Nitrogen Oxide (NOx) emissions shall not exceed 4.15 tons per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.

Applicable Compliance Method:
The emission limitation was calculated using the following equation:
 $9.471 \text{ mmBtu/hr} \times 0.1 \text{ pound of NOx/mmBtu} \times 8760 \text{ hours/year} \times \text{ton}/2000 \text{ pounds} = 4.15 \text{ TPY}$.
7. **Emission Limitation:**
Carbon Monoxide (CO) emissions shall not exceed 3.5 tons per year total from from the ovens* associated with emission units R001, R002, R003, R004 and R005 combined.

Applicable Compliance Method:
The emission limitation was calculated using the following equation:
 $9.471 \text{ mmBtu/hr} \times 0.084 \text{ pound of CO/mmBtu} \times 8760 \text{ hours/year} \times \text{ton}/2000 \text{ pound} = 3.5 \text{ TPY}$
8. **Emission Limitation:**
Sulfur Dioxide (SO2) emissions shall not exceed 0.03 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.

Applicable Compliance Method:
The emission limitation was calculated using the following equation:
 $9.471 \text{ mmBtu/hr} \times 0.0006 \text{ pound of SO2/mmBtu} \times 8760 \text{ hours/year} \times \text{ton}/2000 \text{ pounds} = 0.03 \text{ TPY}$.
9. **Emission Limitation:**

Particulate Emissions (PE) and emissions of Particulate Matter less than 10 microns in diameter (PM10) shall not exceed 0.32 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.

Applicable Compliance Method:

The emission limitation was calculated using the following equation:

$$9.471 \text{ mmBtu/hr} \times 0.0076 \text{ pound of PE/PM10/mmBtu} \times 8760 \text{ hours/year} \times \text{ton}/2000 \text{ pounds} = 0.32 \text{ TPY.}$$

10. Emission Limitation:

Organic Compound (OC) emissions shall not exceed 0.46 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.

Applicable Compliance Method:

The emission limitation was calculated using the following equation:

$$9.471 \text{ mmBtu/hr} \times 0.011 \text{ pound of OC/mmBtu} \times 8760 \text{ hours/year} \times \text{ton}/2000 \text{ pounds} = 0.46 \text{ TPY.}$$

11. 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 within 6 months after issuance of the permit and within 6 months prior to permit renewal.
- b. The emission testing shall be conducted to demonstrate compliance with the requirement that the permittee shall operate and maintain a thermal oxidizer capable of maintaining, at a minimum, a 95% (by weight of organic compounds) control efficiency at maximum hourly coating capacity from the oven exhaust for emissions units R001, R002 R003, R004 and R005.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Method 25 of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions units R001, R002, R003, R004 and R005 are operating at or near their maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
 - e. 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), 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 Ohio EPA District Office's or local air agency's 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

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Facility ID: 1431154013 Emissions Unit ID: R002 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

Part II - Special Terms and Conditions

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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>
R002 - 4-unit heatset web offset press with one 1.735 mmBtu/hour oven, controlled by regenerative thermal oxidizer.	OAC rule 3745-31-05(A)(3) (PTI 14-4606)	See terms A.2.b, A.2.c and A.2.d. Oven emissions: Nitrogen Oxide (NOx) emissions shall not exceed 0.1 lb/mmBtu. Nitrogen Oxide (NOx) emissions shall not exceed 4.15 tons per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined. Carbon Monoxide (CO) emissions shall not exceed 0.084 lb/mmBtu. Carbon Monoxide (CO) emissions shall not exceed 3.5 tons per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined. Sulfur Dioxide (SO2) emissions shall not exceed 0.0006 lb/mmBtu. Sulfur Dioxide (SO2) emissions shall not exceed 0.03 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined. Particulate Emissions (PE) and emissions of Particulate Matter less than 10 microns in diameter (PM10) shall not exceed 0.0076 lb/mmBtu. Particulate Emissions (PE) and emissions of Particulate Matter less than 10 microns in diameter (PM10) shall not exceed 0.32 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined. Organic Compound (OC) emissions shall not exceed 0.011 lb/mmBtu. Organic Compound (OC) emissions shall not exceed 0.46 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined. * The ovens associated with emissions units R001, R002, R003, R004 and R005 have a combined heat input rating of 9.471 mmBtu/hr. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1). Visible particulate emissions from any stack associated with emissions units R001, R002 R003, R004 and R005 shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	
	OAC rule 3745-17-11	
	OAC rule 3745-21-07(G)	

2. **Additional Terms and Conditions**

- (a) Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the operation of a thermal oxidizer with a control efficiency equal to or greater than 95% for OC emissions, mass emission and material usage limitations.
 Combined organic compound emissions from the thermal oxidizer exhaust of emissions units R001, R002, R003, R004 and R005, combined, shall not exceed 28.17 pounds per day and 5.03 TPY.
 Total combined organic compound emissions from the thermal oxidizer and fugitive organic compound emissions associated with the fountain solution and blanket wash of emissions units R001, R002, R003, R004 and R005, combined shall not exceed 52.6 pounds per day and 8.58 TPY.
 The following organic compound contents shall not be exceeded for emissions units R001, R002, R003, R004 and R005:

 The organic compound content for ink shall not exceed 42% by weight.
 The organic compound content for fountain solution shall not exceed 6.1% by weight.

The organic compound content for blanket wash shall not exceed 96.2% by weight.

The permittee shall operate and maintain a thermal oxidizer capable of maintaining, at a minimum, a 95% (by weight of organic compounds) control efficiency at maximum hourly coating capacity from the oven exhaust for emissions units R001, R002, R003, R004 and R005.

The daily emission limitations outlined in this permit are based upon the maximum hourly production/application rate at 24 hours per day. Therefore, no daily records are required to demonstrate compliance.

B. Operational Restrictions

1. The use of photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) is prohibited.
2. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when emissions units R001, R002, R003, R004 and R005 are in operation shall not be less than 1600 degrees Fahrenheit.
3. Ink, fountain solution and cleanup material usages for emissions units R001, R002, R003, R004 and R005 combined shall not exceed the following limits:
 - Inks usage shall not exceed 562,175 pounds per year.
 - Fountain solution usage shall not exceed 27,000 pounds per year.
 - Blanket wash usage shall not exceed 10,350 pounds per year.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each month for emissions units R001, R002, R003, R004 and R005:
 - a. The company identification number of each ink, fountain solution and blanket wash employed in each emissions unit.
 - b. The percent (%) by weight of the organic compound content of each ink, fountain solution and blanket wash for each emissions unit.
 - c. The number of pounds of each ink, fountain solution and blanket wash employed in each emissions unit.
 - d. A record of each liquid organic material employed in each emission unit indicating whether or not the liquid organic material is photochemically reactive as defined in OAC rule 3745-21-01(C)(5).
2. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when emission units R001, R002, R003, R004 and R005 are in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
3. The permittee shall collect and record the following information for each day:
 - a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions units were in operation, was less than 1600 degrees Fahrenheit.
 - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions units were in operation.
4. The permit to install for emission units R001, R002, R003, R004 and R005 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, 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 (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 Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: stoddard solvent (petroleum distillates)

TLV (mg/m3): 525

Maximum Hourly Emission Rate (lbs/hr): (R001, R002, R003, R004 and R005) 1.114

Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 38.14

Maximum Acceptable Ground-Level Concentration (ug/m3): 12,500

Pollutant: ethylene glycol

TLV (mg/m3): 100

Maximum Hourly Emission Rate (lbs/hr): (R001, R002, R003, R004 and R005) 1.114

Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 38.14

Maximum Acceptable Ground-Level Concentration (ug/m3): 2381

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.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in Section B.2.
2. The permittee shall submit deviation reports which identify all exceedances of the OC content limitations in term A.2.d.
3. The permittee shall submit annual reports which specify the total usage in pounds from the inks, fountain solutions, and blanket wash (cleanup) for emissions units R001, R002, R003, R004 and R005 combined. These reports shall be submitted by February 15 of each year and shall cover the previous 12 calendar months.
4. 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 emissions units R001, R002, R003, R004 or R005. 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 exceedance occurs.
5. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. **Emission Limitation:**
Total combined organic compound emissions from the thermal oxidizer and fugitive organic compound emissions associated with the fountain solution and blanket wash of emissions units R001, R002, R003, R004 and R005, combined shall not exceed 8.58 TPY.

Applicable Compliance Method:

The OC emission limitation was calculated by multiplying the material usage rate times the percent (%) by weight OC content times the retention factors consistent with the Ohio EPA Engineering Guide #56 times the control efficiency of the thermal oxidizer.

Ink emissions = 562,175 pounds of ink per year x 0.8 pound of ink to oven per pounds of ink per year x 0.42 pound of OC per pound of ink x (1-.95) x 1 ton per 2000 pounds = 4.72 TPY.

Fountain Solution stack emissions = 27,000 pounds of fountain solution per year x 0.7 pound of fountain solution to oven per pounds of fountain solution per year x 0.061 pound of OC per pound of fountain solution x (1-.95) x 1 ton per 2000 pounds = 0.029 TPY.

Fountain Solution fugitive emissions = 27,000 pounds of fountain solution per year x 0.3 pound of fugitive fountain solution emissions per pounds of fountain solution per year x 0.061 pound of OC per pound of fountain solution x 1 ton per 2000 pounds = 0.25 TPY.

Blanket Wash stack emissions = 10,350 pounds of Blanket Wash per year x 0.4 pound of Blanket Wash stack emissions per pound of Blanket Wash x 0.962 pound of OC per pound of Blanket Wash x (1-.95) x 1 ton per 2000 pounds = 0.099 TPY.

Blanket Wash fugitive emissions = 10,350 pounds of Blanket Wash per year x 0.6 pound of Blanket Wash stack emissions per pound of Blanket Wash x 0.962 pound of OC per pound of Blanket Wash x 1 ton per 2000 pounds = 2.99 TPY.

OC emissions from the thermal oxidizer = 9.471 mmBtu/hr x 0.011 pound of OC per mmBtu x 8760 hours per year x 1 ton per 2000 pounds = 0.46 TPY.

Total OC emissions are 4.72 TPY + 0.029 TPY + 0.099 TPY + 0.25 TPY + 2.99 TPY + 0.46 TPY = 8.58 TPY.

If testing is required to demonstrate compliance with the allowable OC mass emission rates, then testing shall be conducted using the methods outlined in Methods 1-4 and 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

If testing is required, the test(s) shall be conducted while emissions units R001, R002, R003, R004 and R005

are all operating at or near their maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

2. Emission Limitation:
Visible particulate emissions from any stack associated with emissions units R001, R002, R003, R004 and R005 shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:
Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).
3. Compliance with the usage limits outlined Section B.3 shall be demonstrated by the record keeping in Section C.1.
4. Compliance with the percent by weight OC content outlined in term A.2.d shall be demonstrated by the recordkeeping in Section C.1.
5. USEPA Methods 24 and 24A shall be used to determine the OC 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.
6. Emission Limitation:
Nitrogen Oxide (NOx) emissions shall not exceed 4.15 tons per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.

Applicable Compliance Method:
The emission limitation was calculated using the following equation:
 $9.471 \text{ mmBtu/hr} \times 0.1 \text{ pound of NOx/mmBtu} \times 8760 \text{ hours/year} \times \text{ton}/2000 \text{ pounds} = 4.15 \text{ TPY}$.
7. Emission Limitation:
Carbon Monoxide (CO) emissions shall not exceed 3.5 tons per year total from from the ovens* associated with emission units R001, R002, R003, R004 and R005 combined.

Applicable Compliance Method:
The emission limitation was calculated using the following equation:
 $9.471 \text{ mmBtu/hr} \times 0.084 \text{ pound of CO/mmBtu} \times 8760 \text{ hours/year} \times \text{ton}/2000 \text{ pound} = 3.5 \text{ TPY}$
8. Emission Limitation:
Sulfur Dioxide (SO2) emissions shall not exceed 0.03 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.

Applicable Compliance Method:
The emission limitation was calculated using the following equation:
 $9.471 \text{ mmBtu/hr} \times 0.0006 \text{ pound of SO2/mmBtu} \times 8760 \text{ hours/year} \times \text{ton}/2000 \text{ pounds} = 0.03 \text{ TPY}$.
9. Emission Limitation:
Particulate Emissions (PE) and emissions of Particulate Matter less than 10 microns in diameter (PM10) shall not exceed 0.32 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.

Applicable Compliance Method:
The emission limitation was calculated using the following equation:
 $9.471 \text{ mmBtu/hr} \times 0.0076 \text{ pound of PE/PM10/mmBtu} \times 8760 \text{ hours/year} \times \text{ton}/2000 \text{ pounds} = 0.32 \text{ TPY}$.
10. Emission Limitation:
Organic Compound (OC) emissions shall not exceed 0.46 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.

Applicable Compliance Method:
The emission limitation was calculated using the following equation:
 $9.471 \text{ mmBtu/hr} \times 0.011 \text{ pound of OC/mmBtu} \times 8760 \text{ hours/year} \times \text{ton}/2000 \text{ pounds} = 0.46 \text{ TPY}$.
11. 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 within 6 months after issuance of the permit and within 6 months prior to permit renewal.
 - b. The emission testing shall be conducted to demonstrate compliance with the requirement that the permittee shall operate and maintain a thermal oxidizer capable of maintaining, at a minimum, a 95% (by weight of organic compounds) control efficiency at maximum hourly coating capacity from the oven exhaust for emissions units R001, R002 R003, R004 and R005.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Method 25 of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The test(s) shall be conducted while the emissions units R001, R002, R003, R004 and R005 are operating at or near their maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
 - e. 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), 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 Ohio EPA District Office's or local air agency's 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

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 1431154013 Emissions Unit ID: R003 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
R003 - 4-unit heatset web offset press with one 2.133 mmBtu/hour oven, controlled by regenerative thermal oxidizer.	OAC rule 3745-31-05(A)(3) (PTI 14-4606)	See terms A.2.b, A.2.c and A.2.d. Oven emissions: Nitrogen Oxide (NOx) emissions shall not exceed 0.1 lb/mmBtu. Nitrogen Oxide (NOx) emissions shall not exceed 4.15 tons per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined. Carbon Monoxide (CO) emissions shall not exceed 0.084 lb/mmBtu. Carbon Monoxide (CO) emissions shall not exceed 3.5 tons per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined. Sulfur Dioxide (SO2) emissions shall not exceed 0.0006 lb/mmBtu. Sulfur Dioxide (SO2) emissions shall not exceed 0.03 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined. Particulate Emissions (PE) and emissions of Particulate Matter less than 10 microns in diameter

(PM10) shall not exceed 0.0076 lb/mmBtu.

Particulate Emissions (PE) and emissions of Particulate Matter less than 10 microns in diameter (PM10) shall not exceed 0.32 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.

Organic Compound (OC) emissions shall not exceed 0.011 lb/mmBtu.

Organic Compound (OC) emissions shall not exceed 0.46 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.

* The ovens associated with emissions units R001, R002, R003, R004 and R005 have a combined heat input rating of 9.471 mmBtu/hr.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).

OAC rule 3745-17-07(A)(1)

Visible particulate emissions from any stack associated with emissions units R001, R002 R003, R004 and R005 shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

OAC rule 3745-17-11

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

OAC rule 3745-21-07(G)

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- (a) Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the operation of a thermal oxidizer with a control efficiency equal to or greater than 95% for OC emissions, mass emission and material usage limitations.
 Combined organic compound emissions from the thermal oxidizer exhaust of emissions units R001, R002, R003, R004 and R005, combined, shall not exceed 28.17 pounds per day and 5.03 TPY.
 Total combined organic compound emissions from the thermal oxidizer and fugitive organic compound emissions associated with the fountain solution and blanket wash of emissions units R001, R002, R003, R004 and R005, combined shall not exceed 52.6 pounds per day and 8.58 TPY.
 The following organic compound contents shall not be exceeded for emissions units R001, R002, R003, R004 and R005:

The organic compound content for ink shall not exceed 42% by weight.
 The organic compound content for fountain solution shall not exceed 6.1% by weight.
 The organic compound content for blanket wash shall not exceed 96.2% by weight.
 The permittee shall operate and maintain a thermal oxidizer capable of maintaining, at a minimum, a 95% (by weight of organic compounds) control efficiency at maximum hourly coating capacity from the oven exhaust for emissions units R001, R002 R003, R004 and R005.
 The daily emission limitations outlined in this permit are based upon the maximum hourly production/application rate at 24 hours per day. Therefore, no daily records are required to demonstrate compliance.

B. Operational Restrictions

- 1. The use of photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) is prohibited.
- 2. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when emissions units R001, R002, R003, R004 and R005 are in operation shall not be less than 1600 degrees Fahrenheit.
- 3. Ink, fountain solution and cleanup material usages for emissions units R001, R002, R003, R004 and R005 combined shall not exceed the following limits:
 Inks usage shall not exceed 562,175 pounds per year.
 Fountain solution usage shall not exceed 27,000 pounds per year.
 Blanket wash usage shall not exceed 10,350 pounds per year.

C. Monitoring and/or Record Keeping Requirements

- 1. The permittee shall collect and record the following information each month for emissions units R001, R002, R003, R004 and R005:
 - a. The company identification number of each ink, fountain solution and blanket wash employed in each emissions unit.
 - b. The percent (%) by weight of the organic compound content of each ink, fountain solution and blanket wash for each emissions unit.
 - c. The number of pounds of each ink, fountain solution and blanket wash employed in each emissions unit.
 - d. A record of each liquid organic material employed in each emission unit indicating whether or not the liquid organic material is photochemically reactive as defined in OAC rule 3745-21-01(C)(5).
- 2. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and

records the combustion temperature within the thermal oxidizer when emission units R001, R002, R003, R004 and R005 are in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

3. The permittee shall collect and record the following information for each day:
 - a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions units were in operation, was less than 1600 degrees Fahrenheit.
 - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions units were in operation.
4. The permit to install for emission units R001, R002, R003, R004 and R005 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, 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 (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 Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: stoddard solvent (petroleum distillates)

TLV (mg/m3): 525

Maximum Hourly Emission Rate (lbs/hr): (R001, R002, R003, R004 and R005) 1.114

Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 38.14

Maximum Acceptable Ground-Level Concentration (ug/m3): 12,500

Pollutant: ethylene glycol

TLV (mg/m3): 100

Maximum Hourly Emission Rate (lbs/hr): (R001, R002, R003, R004 and R005) 1.114

Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 38.14

Maximum Acceptable Ground-Level Concentration (ug/m3): 2381

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.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in Section B.2.
2. The permittee shall submit deviation reports which identify all exceedances of the OC content limitations in term A.2.d.
3. The permittee shall submit annual reports which specify the total usage in pounds from the inks, fountain solutions, and blanket wash (cleanup) for emissions units R001, R002, R003, R004 and R005 combined. These reports shall be submitted by February 15 of each year and shall cover the previous 12 calendar months.

4. 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 emissions units R001, R002, R003, R004 or R005. 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 exceedance occurs.
5. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. **Emission Limitation:**
Total combined organic compound emissions from the thermal oxidizer and fugitive organic compound emissions associated with the fountain solution and blanket wash of emissions units R001, R002, R003, R004 and R005, combined shall not exceed 8.58 TPY.

Applicable Compliance Method:
The OC emission limitation was calculated by multiplying the material usage rate times the percent (%) by weight OC content times the retention factors consistent with the Ohio EPA Engineering Guide #56 times the control efficiency of the thermal oxidizer.

Ink emissions = 562,175 pounds of ink per year x 0.8 pound of ink to oven per pounds of ink per year x 0.42 pound of OC per pound of ink x (1-.95) x 1 ton per 2000 pounds = 4.72 TPY.

Fountain Solution stack emissions = 27,000 pounds of fountain solution per year x 0.7 pound of fountain solution to oven per pounds of fountain solution per year x 0.061 pound of OC per pound of fountain solution x (1-.95) x 1 ton per 2000 pounds = 0.029 TPY.

Fountain Solution fugitive emissions = 27,000 pounds of fountain solution per year x 0.3 pound of fugitive fountain solution emissions per pounds of fountain solution per year x 0.061 pound of OC per pound of fountain solution x 1 ton per 2000 pounds = 0.25 TPY.

Blanket Wash stack emissions = 10,350 pounds of Blanket Wash per year x 0.4 pound of Blanket Wash stack emissions per pound of Blanket Wash x 0.962 pound of OC per pound of Blanket Wash x (1-.95) x 1 ton per 2000 pounds = 0.099 TPY.

Blanket Wash fugitive emissions = 10,350 pounds of Blanket Wash per year x 0.6 pound of Blanket Wash stack emissions per pound of Blanket Wash x 0.962 pound of OC per pound of Blanket Wash x 1 ton per 2000 pounds = 2.99 TPY.

OC emissions from the thermal oxidizer = 9.471 mmBtu/hr x 0.011 pound of OC per mmBtu x 8760 hours per year x 1 ton per 2000 pounds = 0.46 TPY.

Total OC emissions are 4.72 TPY + 0.029 TPY + 0.099 TPY + 0.25 TPY + 2.99 TPY + 0.46 TPY = 8.58 TPY.
If testing is required to demonstrate compliance with the allowable OC mass emission rates, then testing shall be conducted using the methods outlined in Methods 1-4 and 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

If testing is required, the test(s) shall be conducted while emissions units R001, R002, R003, R004 and R005 are all operating at or near their maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.
2. **Emission Limitation:**
Visible particulate emissions from any stack associated with emissions units R001, R002, R003, R004 and R005 shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:
Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).
3. Compliance with the usage limits outlined Section B.3 shall be demonstrated by the record keeping in Section C.1.
4. Compliance with the percent by weight OC content outlined in term A.2.d shall be demonstrated by the recordkeeping in Section C.1.
5. USEPA Methods 24 and 24A shall be used to determine the OC 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.
6. **Emission Limitation:**
Nitrogen Oxide (NOx) emissions shall not exceed 4.15 tons per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.

Applicable Compliance Method:
The emission limitation was calculated using the following equation:
9.471 mmBtu/hr x 0.1 pound of NOx/mmBtu x 8760 hours/year x ton/2000 pounds = 4.15 TPY.
7. **Emission Limitation:**
Carbon Monoxide (CO) emissions shall not exceed 3.5 tons per year total from from the ovens* associated with emission units R001, R002, R003, R004 and R005 combined.

Applicable Compliance Method:

The emission limitation was calculated using the following equation:

$$9.471 \text{ mmBtu/hr} \times 0.084 \text{ pound of CO/mmBtu} \times 8760 \text{ hours/year} \times \text{ton}/2000 \text{ pound} = 3.5 \text{ TPY}$$

8. Emission Limitation:
Sulfur Dioxide (SO₂) emissions shall not exceed 0.03 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.
- Applicable Compliance Method:
The emission limitation was calculated using the following equation:
 $9.471 \text{ mmBtu/hr} \times 0.0006 \text{ pound of SO}_2/\text{mmBtu} \times 8760 \text{ hours/year} \times \text{ton}/2000 \text{ pounds} = 0.03 \text{ TPY}$.
9. Emission Limitation:
Particulate Emissions (PE) and emissions of Particulate Matter less than 10 microns in diameter (PM₁₀) shall not exceed 0.32 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.
- Applicable Compliance Method:
The emission limitation was calculated using the following equation:
 $9.471 \text{ mmBtu/hr} \times 0.0076 \text{ pound of PE/PM}_{10}/\text{mmBtu} \times 8760 \text{ hours/year} \times \text{ton}/2000 \text{ pounds} = 0.32 \text{ TPY}$.
10. Emission Limitation:
Organic Compound (OC) emissions shall not exceed 0.46 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.
- Applicable Compliance Method:
The emission limitation was calculated using the following equation:
 $9.471 \text{ mmBtu/hr} \times 0.011 \text{ pound of OC/mmBtu} \times 8760 \text{ hours/year} \times \text{ton}/2000 \text{ pounds} = 0.46 \text{ TPY}$.
11. 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 within 6 months after issuance of the permit and within 6 months prior to permit renewal.
 - b. The emission testing shall be conducted to demonstrate compliance with the requirement that the permittee shall operate and maintain a thermal oxidizer capable of maintaining, at a minimum, a 95% (by weight of organic compounds) control efficiency at maximum hourly coating capacity from the oven exhaust for emissions units R001, R002 R003, R004 and R005.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Method 25 of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The test(s) shall be conducted while the emissions units R001, R002, R003, R004 and R005 are operating at or near their maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
e. 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), 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 Ohio EPA District Office's or local air agency's 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

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 1431154013 Emissions Unit ID: R004 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
R004 - 4-unit heatset web offset press with one 1.735 mmBtu/hour oven, controlled by regenerative thermal oxidizer.	OAC rule 3745-31-05(A)(3) (PTI 14-4606)	See terms A.2.b, A.2.c and A.2.d. Oven emissions: Nitrogen Oxide (NOx) emissions shall not exceed 0.1 lb/mmBtu. Nitrogen Oxide (NOx) emissions shall not exceed 4.15 tons per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined. Carbon Monoxide (CO) emissions shall not exceed 0.084 lb/mmBtu. Carbon Monoxide (CO) emissions shall not exceed 3.5 tons per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined. Sulfur Dioxide (SO2) emissions shall not exceed 0.0006 lb/mmBtu. Sulfur Dioxide (SO2) emissions shall not exceed 0.03 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined. Particulate Emissions (PE) and emissions of Particulate Matter less than 10 microns in diameter (PM10) shall not exceed 0.0076 lb/mmBtu. Particulate Emissions (PE) and emissions of Particulate Matter less than 10 microns in diameter (PM10) shall not exceed 0.32 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined. Organic Compound (OC) emissions shall not exceed 0.011 lb/mmBtu. Organic Compound (OC) emissions shall not exceed 0.46 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined. * The ovens associated with emissions units R001, R002, R003, R004 and R005 have a combined heat input rating of 9.471 mmBtu/hr. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1). Visible particulate emissions from any stack associated with emissions units R001, R002 R003, R004 and R005 shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	
	OAC rule 3745-17-11	
	OAC rule 3745-21-07(G)	

2. Additional Terms and Conditions

- (a) Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the operation of a thermal oxidizer with a control efficiency equal to or greater than 95% for OC emissions, mass emission and

material usage limitations.

Combined organic compound emissions from the thermal oxidizer exhaust of emissions units R001, R002, R003, R004 and R005, combined, shall not exceed 28.17 pounds per day and 5.03 TPY.

Total combined organic compound emissions from the thermal oxidizer and fugitive organic compound emissions associated with the fountain solution and blanket wash of emissions units R001, R002, R003, R004 and R005, combined shall not exceed 52.6 pounds per day and 8.58 TPY.

The following organic compound contents shall not be exceeded for emissions units R001, R002, R003, R004 and R005:

The organic compound content for ink shall not exceed 42% by weight.

The organic compound content for fountain solution shall not exceed 6.1% by weight.

The organic compound content for blanket wash shall not exceed 96.2% by weight.

The permittee shall operate and maintain a thermal oxidizer capable of maintaining, at a minimum, a 95% (by weight of organic compounds) control efficiency at maximum hourly coating capacity from the oven exhaust for emissions units R001, R002, R003, R004 and R005.

The daily emission limitations outlined in this permit are based upon the maximum hourly production/application rate at 24 hours per day. Therefore, no daily records are required to demonstrate compliance.

B. Operational Restrictions

1. The use of photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) is prohibited.
2. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when emissions units R001, R002, R003, R004 and R005 are in operation shall not be less than 1600 degrees Fahrenheit.
3. Ink, fountain solution and cleanup material usages for emissions units R001, R002, R003, R004 and R005 combined shall not exceed the following limits:

Inks usage shall not exceed 562,175 pounds per year.

Fountain solution usage shall not exceed 27,000 pounds per year.

Blanket wash usage shall not exceed 10,350 pounds per year.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each month for emissions units R001, R002, R003, R004 and R005:
 - a. The company identification number of each ink, fountain solution and blanket wash employed in each emissions unit.
 - b. The percent (%) by weight of the organic compound content of each ink, fountain solution and blanket wash for each emissions unit.
 - c. The number of pounds of each ink, fountain solution and blanket wash employed in each emissions unit.
 - d. A record of each liquid organic material employed in each emission unit indicating whether or not the liquid organic material is photochemically reactive as defined in OAC rule 3745-21-01(C)(5).
2. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when emission units R001, R002, R003, R004 and R005 are in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
3. The permittee shall collect and record the following information for each day:
 - a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions units were in operation, was less than 1600 degrees Fahrenheit.
 - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions units were in operation.
4. The permit to install for emission units R001, R002, R003, R004 and R005 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, 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 (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 Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: stoddard solvent (petroleum distillates)

TLV (mg/m3): 525

Maximum Hourly Emission Rate (lbs/hr): (R001, R002, R003, R004 and R005) 1.114

Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 38.14

Maximum Acceptable Ground-Level Concentration (ug/m3): 12,500

Pollutant: ethylene glycol

TLV (mg/m3): 100

Maximum Hourly Emission Rate (lbs/hr): (R001, R002, R003, R004 and R005) 1.114

Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 38.14

Maximum Acceptable Ground-Level Concentration (ug/m3): 2381

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.
- D. Reporting Requirements**
1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in Section B.2.
 2. The permittee shall submit deviation reports which identify all exceedances of the OC content limitations in term A.2.d.
 3. The permittee shall submit annual reports which specify the total usage in pounds from the inks, fountain solutions, and blanket wash (cleanup) for emissions units R001, R002, R003, R004 and R005 combined. These reports shall be submitted by February 15 of each year and shall cover the previous 12 calendar months.
 4. 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 emissions units R001, R002, R003, R004 or R005. 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 exceedance occurs.
 5. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.
- E. Testing Requirements**
1. Emission Limitation:
Total combined organic compound emissions from the thermal oxidizer and fugitive organic compound emissions associated with the fountain solution and blanket wash of emissions units R001, R002, R003, R004 and R005, combined shall not exceed 8.58 TPY.

Applicable Compliance Method:

The OC emission limitation was calculated by multiplying the material usage rate times the percent (%) by weight OC content times the retention factors consistent with the Ohio EPA Engineering Guide #56 times the control efficiency of the thermal oxidizer.

Ink emissions = 562,175 pounds of ink per year x 0.8 pound of ink to oven per pounds of ink per year x 0.42 pound of OC per pound of ink x (1-.95) x 1 ton per 2000 pounds = 4.72 TPY.

Fountain Solution stack emissions = 27,000 pounds of fountain solution per year x 0.7 pound of fountain solution to oven per pounds of fountain solution per year x 0.061 pound of OC per pound of fountain solution x (1-.95) x 1 ton per 2000 pounds = 0.029 TPY.

Fountain Solution fugitive emissions = 27,000 pounds of fountain solution per year x 0.3 pound of fugitive fountain solution emissions per pounds of fountain solution per year x 0.061 pound of OC per pound of fountain solution x 1 ton per 2000 pounds = 0.25 TPY.

Blanket Wash stack emissions = 10,350 pounds of Blanket Wash per year x 0.4 pound of Blanket Wash stack emissions per pound of Blanket Wash x 0.962 pound of OC per pound of Blanket Wash x (1-.95) x 1 ton per 2000 pounds = 0.099 TPY.

Blanket Wash fugitive emissions = 10,350 pounds of Blanket Wash per year x 0.6 pound of Blanket Wash stack emissions per pound of Blanket Wash x 0.962 pound of OC per pound of Blanket Wash x 1 ton per 2000

pounds = 2.99 TPY.

OC emissions from the thermal oxidizer = $9.471 \text{ mmBtu/hr} \times 0.011 \text{ pound of OC per mmBtu} \times 8760 \text{ hours per year} \times 1 \text{ ton per 2000 pounds} = 0.46 \text{ TPY}$.

Total OC emissions are $4.72 \text{ TPY} + 0.029 \text{ TPY} + 0.099 \text{ TPY} + 0.25 \text{ TPY} + 2.99 \text{ TPY} + 0.46 \text{ TPY} = 8.58 \text{ TPY}$.
If testing is required to demonstrate compliance with the allowable OC mass emission rates, then testing shall be conducted using the methods outlined in Methods 1-4 and 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

If testing is required, the test(s) shall be conducted while emissions units R001, R002, R003, R004 and R005 are all operating at or near their maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

2. Emission Limitation:
Visible particulate emissions from any stack associated with emissions units R001, R002, R003, R004 and R005 shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:
Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).
3. Compliance with the usage limits outlined Section B.3 shall be demonstrated by the record keeping in Section C.1.
4. Compliance with the percent by weight OC content outlined in term A.2.d shall be demonstrated by the recordkeeping in Section C.1.
5. USEPA Methods 24 and 24A shall be used to determine the OC 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.
6. Emission Limitation:
Nitrogen Oxide (NOx) emissions shall not exceed 4.15 tons per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.

Applicable Compliance Method:
The emission limitation was calculated using the following equation:
 $9.471 \text{ mmBtu/hr} \times 0.1 \text{ pound of NOx/mmBtu} \times 8760 \text{ hours/year} \times \text{ton/2000 pounds} = 4.15 \text{ TPY}$.
7. Emission Limitation:
Carbon Monoxide (CO) emissions shall not exceed 3.5 tons per year total from from the ovens* associated with emission units R001, R002, R003, R004 and R005 combined.

Applicable Compliance Method:
The emission limitation was calculated using the following equation:
 $9.471 \text{ mmBtu/hr} \times 0.084 \text{ pound of CO/mmBtu} \times 8760 \text{ hours/year} \times \text{ton/2000 pound} = 3.5 \text{ TPY}$
8. Emission Limitation:
Sulfur Dioxide (SO2) emissions shall not exceed 0.03 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.

Applicable Compliance Method:
The emission limitation was calculated using the following equation:
 $9.471 \text{ mmBtu/hr} \times 0.0006 \text{ pound of SO2/mmBtu} \times 8760 \text{ hours/year} \times \text{ton/2000 pounds} = 0.03 \text{ TPY}$.
9. Emission Limitation:
Particulate Emissions (PE) and emissions of Particulate Matter less than 10 microns in diameter (PM10) shall not exceed 0.32 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.

Applicable Compliance Method:
The emission limitation was calculated using the following equation:
 $9.471 \text{ mmBtu/hr} \times 0.0076 \text{ pound of PE/PM10/mmBtu} \times 8760 \text{ hours/year} \times \text{ton/2000 pounds} = 0.32 \text{ TPY}$.
10. Emission Limitation:
Organic Compound (OC) emissions shall not exceed 0.46 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.

Applicable Compliance Method:
The emission limitation was calculated using the following equation:
 $9.471 \text{ mmBtu/hr} \times 0.011 \text{ pound of OC/mmBtu} \times 8760 \text{ hours/year} \times \text{ton/2000 pounds} = 0.46 \text{ TPY}$.
11. 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 within 6 months after issuance of the permit and within 6 months prior to permit renewal.
 - b. The emission testing shall be conducted to demonstrate compliance with the requirement that the permittee shall operate and maintain a thermal oxidizer capable of maintaining, at a minimum, a 95% (by weight of organic compounds) control efficiency at maximum hourly coating capacity from the oven exhaust for emissions units R001, R002 R003, R004 and R005.

- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):
 - Method 25 of 40 CFR Part 60, Appendix A.
 - Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions units R001, R002, R003, R004 and R005 are operating at or near their maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
 - e. 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), 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 Ohio EPA District Office's or local air agency's 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

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 1431154013 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
R005 - 4-unit heatset web offset press with one 2.133 mmBtu/hour oven, controlled by regenerative thermal oxidizer.	OAC rule 3745-31-05(A)(3) (PTI 14-4606)	See terms A.2.b, A.2.c and A.2.d. Oven emissions: Nitrogen Oxide (NOx) emissions shall not exceed 0.1 lb/mmBtu. Nitrogen Oxide (NOx) emissions shall not exceed 4.15 tons per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined. Carbon Monoxide (CO) emissions shall not exceed 0.084 lb/mmBtu. Carbon Monoxide (CO) emissions shall not exceed 3.5 tons per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005

combined.

Sulfur Dioxide (SO₂) emissions shall not exceed 0.0006 lb/mmBtu.

Sulfur Dioxide (SO₂) emissions shall not exceed 0.03 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.

Particulate Emissions (PE) and emissions of Particulate Matter less than 10 microns in diameter (PM₁₀) shall not exceed 0.0076 lb/mmBtu.

Particulate Emissions (PE) and emissions of Particulate Matter less than 10 microns in diameter (PM₁₀) shall not exceed 0.32 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.

Organic Compound (OC) emissions shall not exceed 0.011 lb/mmBtu.

Organic Compound (OC) emissions shall not exceed 0.46 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.

* The ovens associated with emissions units R001, R002, R003, R004 and R005 have a combined heat input rating of 9.471 mmBtu/hr.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).

OAC rule 3745-17-07(A)(1)

Visible particulate emissions from any stack associated with emissions units R001, R002 R003, R004 and R005 shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

OAC rule 3745-17-11

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

OAC rule 3745-21-07(G)

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- (a) Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the operation of a thermal oxidizer with a control efficiency equal to or greater than 95% for OC emissions, mass emission and material usage limitations.
 Combined organic compound emissions from the thermal oxidizer exhaust of emissions units R001, R002, R003, R004 and R005, combined, shall not exceed 28.17 pounds per day and 5.03 TPY.
 Total combined organic compound emissions from the thermal oxidizer and fugitive organic compound emissions associated with the fountain solution and blanket wash of emissions units R001, R002, R003, R004 and R005, combined shall not exceed 52.6 pounds per day and 8.58 TPY.
 The following organic compound contents shall not be exceeded for emissions units R001, R002, R003, R004 and R005:

The organic compound content for ink shall not exceed 42% by weight.
 The organic compound content for fountain solution shall not exceed 6.1% by weight.
 The organic compound content for blanket wash shall not exceed 96.2% by weight.
 The permittee shall operate and maintain a thermal oxidizer capable of maintaining, at a minimum, a 95% (by weight of organic compounds) control efficiency at maximum hourly coating capacity from the oven exhaust for emissions units R001, R002 R003, R004 and R005.
 The daily emission limitations outlined in this permit are based upon the maximum hourly production/application rate at 24 hours per day. Therefore, no daily records are required to demonstrate compliance.

B. Operational Restrictions

- 1. The use of photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) is prohibited.
- 2. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when emissions units R001, R002, R003, R004 and R005 are in operation shall not be less than 1600 degrees Fahrenheit.
- 3. Ink, fountain solution and cleanup material usages for emissions units R001, R002, R003, R004 and R005 combined shall not exceed the following limits:
 Inks usage shall not exceed 562,175 pounds per year.
 Fountain solution usage shall not exceed 27,000 pounds per year.
 Blanket wash usage shall not exceed 10,350 pounds per year.

C. Monitoring and/or Record Keeping Requirements

- 1. The permittee shall collect and record the following information each month for emissions units R001, R002, R003, R004 and R005:

- a. The company identification number of each ink, fountain solution and blanket wash employed in each emissions unit.
 - b. The percent (%) by weight of the organic compound content of each ink, fountain solution and blanket wash for each emissions unit.
 - c. The number of pounds of each ink, fountain solution and blanket wash employed in each emissions unit.
 - d. A record of each liquid organic material employed in each emission unit indicating whether or not the liquid organic material is photochemically reactive as defined in OAC rule 3745-21-01(C)(5).
2. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when emission units R001, R002, R003, R004 and R005 are in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
 3. The permittee shall collect and record the following information for each day:
 - a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions units were in operation, was less than 1600 degrees Fahrenheit.
 - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions units were in operation.
 4. The permit to install for emission units R001, R002, R003, R004 and R005 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, 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 (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 Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: stoddard solvent (petroleum distillates)

TLV (mg/m3): 525

Maximum Hourly Emission Rate (lbs/hr): (R001, R002, R003, R004 and R005) 1.114

Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 38.14

Maximum Acceptable Ground-Level Concentration (ug/m3): 12,500

Pollutant: ethylene glycol

TLV (mg/m3): 100

Maximum Hourly Emission Rate (lbs/hr): (R001, R002, R003, R004 and R005) 1.114

Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3): 38.14

Maximum Acceptable Ground-Level Concentration (ug/m3): 2381

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.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer does not comply with the temperature limitation specified in Section B.2.
2. The permittee shall submit deviation reports which identify all exceedances of the OC content limitations in term A.2.d.
3. The permittee shall submit annual reports which specify the total usage in pounds from the inks, fountain solutions, and blanket wash (cleanup) for emissions units R001, R002, R003, R004 and R005 combined. These reports shall be submitted by February 15 of each year and shall cover the previous 12 calendar months.
4. 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 emissions units R001, R002, R003, R004 or R005. 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 exceedance occurs.
5. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. **Emission Limitation:**
Total combined organic compound emissions from the thermal oxidizer and fugitive organic compound emissions associated with the fountain solution and blanket wash of emissions units R001, R002, R003, R004 and R005, combined shall not exceed 8.58 TPY.

Applicable Compliance Method:
The OC emission limitation was calculated by multiplying the material usage rate times the percent (%) by weight OC content times the retention factors consistent with the Ohio EPA Engineering Guide #56 times the control efficiency of the thermal oxidizer.

Ink emissions = 562,175 pounds of ink per year x 0.8 pound of ink to oven per pounds of ink per year x 0.42 pound of OC per pound of ink x (1-.95) x 1 ton per 2000 pounds = 4.72 TPY.

Fountain Solution stack emissions = 27,000 pounds of fountain solution per year x 0.7 pound of fountain solution to oven per pounds of fountain solution per year x 0.061 pound of OC per pound of fountain solution x (1-.95) x 1 ton per 2000 pounds = 0.029 TPY.

Fountain Solution fugitive emissions = 27,000 pounds of fountain solution per year x 0.3 pound of fugitive fountain solution emissions per pounds of fountain solution per year x 0.061 pound of OC per pound of fountain solution x 1 ton per 2000 pounds = 0.25 TPY.

Blanket Wash stack emissions = 10,350 pounds of Blanket Wash per year x 0.4 pound of Blanket Wash stack emissions per pound of Blanket Wash x 0.962 pound of OC per pound of Blanket Wash x (1-.95) x 1 ton per 2000 pounds = 0.099 TPY.

Blanket Wash fugitive emissions = 10,350 pounds of Blanket Wash per year x 0.6 pound of Blanket Wash stack emissions per pound of Blanket Wash x 0.962 pound of OC per pound of Blanket Wash x 1 ton per 2000 pounds = 2.99 TPY.

OC emissions from the thermal oxidizer = 9.471 mmBtu/hr x 0.011 pound of OC per mmBtu x 8760 hours per year x 1 ton per 2000 pounds = 0.46 TPY.

Total OC emissions are 4.72 TPY + 0.029 TPY + 0.099 TPY + 0.25 TPY + 2.99 TPY + 0.46 TPY = 8.58 TPY.
If testing is required to demonstrate compliance with the allowable OC mass emission rates, then testing shall be conducted using the methods outlined in Methods 1-4 and 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

If testing is required, the test(s) shall be conducted while emissions units R001, R002, R003, R004 and R005 are all operating at or near their maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.
2. **Emission Limitation:**
Visible particulate emissions from any stack associated with emissions units R001, R002, R003, R004 and R005 shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:
Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).
3. Compliance with the usage limits outlined Section B.3 shall be demonstrated by the record keeping in Section C.1.
4. Compliance with the percent by weight OC content outlined in term A.2.d shall be demonstrated by the recordkeeping in Section C.1.
5. USEPA Methods 24 and 24A shall be used to determine the OC 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.
6. **Emission Limitation:**
Nitrogen Oxide (NOx) emissions shall not exceed 4.15 tons per year total from the ovens* associated with

emissions units R001, R002, R003, R004 and R005 combined.

Applicable Compliance Method:

The emission limitation was calculated using the following equation:

$9.471 \text{ mmBtu/hr} \times 0.1 \text{ pound of NOx/mmBtu} \times 8760 \text{ hours/year} \times \text{ton}/2000 \text{ pounds} = 4.15 \text{ TPY}$.

7. Emission Limitation:
Carbon Monoxide (CO) emissions shall not exceed 3.5 tons per year total from from the ovens* associated with emission units R001, R002, R003, R004 and R005 combined.
- Applicable Compliance Method:
The emission limitation was calculated using the following equation:
 $9.471 \text{ mmBtu/hr} \times 0.084 \text{ pound of CO/mmBtu} \times 8760 \text{ hours/year} \times \text{ton}/2000 \text{ pound} = 3.5 \text{ TPY}$
8. Emission Limitation:
Sulfur Dioxide (SO2) emissions shall not exceed 0.03 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.
- Applicable Compliance Method:
The emission limitation was calculated using the following equation:
 $9.471 \text{ mmBtu/hr} \times 0.0006 \text{ pound of SO2/mmBtu} \times 8760 \text{ hours/year} \times \text{ton}/2000 \text{ pounds} = 0.03 \text{ TPY}$.
9. Emission Limitation:
Particulate Emissions (PE) and emissions of Particulate Matter less than 10 microns in diameter (PM10) shall not exceed 0.32 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.
- Applicable Compliance Method:
The emission limitation was calculated using the following equation:
 $9.471 \text{ mmBtu/hr} \times 0.0076 \text{ pound of PE/PM10/mmBtu} \times 8760 \text{ hours/year} \times \text{ton}/2000 \text{ pounds} = 0.32 \text{ TPY}$.
10. Emission Limitation:
Organic Compound (OC) emissions shall not exceed 0.46 ton per year total from the ovens* associated with emissions units R001, R002, R003, R004 and R005 combined.
- Applicable Compliance Method:
The emission limitation was calculated using the following equation:
 $9.471 \text{ mmBtu/hr} \times 0.011 \text{ pound of OC/mmBtu} \times 8760 \text{ hours/year} \times \text{ton}/2000 \text{ pounds} = 0.46 \text{ TPY}$.
11. 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 within 6 months after issuance of the permit and within 6 months prior to permit renewal.
 - b. The emission testing shall be conducted to demonstrate compliance with the requirement that the permittee shall operate and maintain a thermal oxidizer capable of maintaining, at a minimum, a 95% (by weight of organic compounds) control efficiency at maximum hourly coating capacity from the oven exhaust for emissions units R001, R002 R003, R004 and R005.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Method 25 of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The test(s) shall be conducted while the emissions units R001, R002, R003, R004 and R005 are operating at or near their maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
e. 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), 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 Ohio EPA District Office's or local air agency's 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