

Facility ID: 1677120065 Issuance type: Final State Permit To Operate

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In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

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

Facility ID: 1677120065 Emissions Unit ID: K001 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (a) None.

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Paper coating line (adhesive coating of a continuous paper web, including one drying oven, one gravure, one knife over roll, roll coater, a winder and unwinder) controlled with a thermal incinerator and a permanent total enclosure.	OAC rule 3745-31-05(A)(3) (PTI 16-01717)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(B)(6), OAC rule 3745-21-09(F), OAC rule 3745-35-07(B), and 40 CFR Part 60, Subpart RR.
		Volatile organic compounds (VOC) emissions shall not exceed 9.23 lbs/hr, including cleanup materials.
	OAC rule 3745-21-09(F)	VOC emissions shall not exceed 40.4 tpy. exempt
	OAC rule 3745-21-09(B)(6)	See section A.2.a below. 81% overall control efficiency 90% destruction efficiency
	40 CFR Part 60, Subpart RR OAC rule 3745-35-07(B)	See section A.2.a below. 90 percent overall VOC emission reduction as calculated over a calendar month. Facility-wide emissions shall not exceed the following: 99.9 tpy of VOC per rolling, 12-month period; 24.9 tpy of total combined hazardous air pollutants (HAPs) per rolling, 12-month period; and 9.9 tpy of any individual HAP per rolling, 12-month period.

2. Additional Terms and Conditions

- (a) In lieu of complying with the pounds of VOC per gallon of solids limitation contained in paragraph (F) of OAC rule 3745-21-09, the permittee shall employ a control system that provides not less than an eighty-one percent reduction, by weight, in the overall VOC emissions from the coating line and that provides a control efficiency of not less than ninety percent, by weight, for the VOC emissions vented to the control equipment.
The permittee has existing coating and cleanup material production records and therefore does not need cumulative emission limitations for HAPs or VOC for the first 12-months of the effective permit.

B. Operational Restrictions

1. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.
2. The permanent total enclosure shall be totally enclosed such that VOC emissions are captured and contained for

discharge to the thermal incinerator. Compliance with the following criteria identified by USEPA Method 204, shall satisfy the permanent total enclosure requirements:

- a. Any natural draft opening (NDO) shall be at least four equivalent opening diameters from each VOC emitting point unless otherwise specified by the Administrator.
 - b. The total area of all NDO's shall not exceed 5 percent of the surface area of the enclosure's four walls, floor, and ceiling.
 - c. The average facial velocity (FV) of air through all NDO's shall be at least 3,600 m/hr (200 fpm). The direction of air flow through all NDO's shall be into the enclosure.
 - d. All access doors and windows whose areas are not included in section (b) and are not included in the calculation section (c) shall be enclosed during routine operation of the process.
 - e. All VOC emissions must be captured and contained for discharge through a control device.
3. The primary process enclosures shall be maintained under negative pressure, at a minimum differential that is not less than 0.007 inch of water, whenever the emissions unit is in operation. This value has been determined to be equivalent to 200 fpm average facial velocity at standard temperature.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

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

- a. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance; and
 - b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
2. The permittee shall operate and maintain monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall record and maintain the following information on a daily basis:

- a. the difference in pressure between the permanent total enclosure and the surrounding area(s); and
 - b. a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
3. The permittee shall collect and record the following information for each day for the coating line:
 - a. the name and identification number of each coating and cleanup material, as applied;
 - b. the VOC content of each coating and cleanup material, as applied, in pounds per gallon;
 - c. the number of gallons of each coating and cleanup material employed;
 - d. the total VOC emission rate for all coatings and cleanup materials, in pounds per day;
 - e. the total number of hours the emissions unit was in operation; and
 - f. the calculated, controlled average hourly VOC emission rate, in pounds per hour, as applied.

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

4. The permittee shall collect and record the following information each month for each coating and cleanup material employed at the facility:
 - a. the name and identification number of each coating, as applied;
 - b. the total VOC content, in pounds of VOC per gallon, of each coating and cleanup material, as applied;
 - c. the individual HAP content for each HAP of each coating, in pounds of individual HAP per gallon of coating, as applied;
 - d. the total combined HAP content of each coating, in pounds of combined HAPs per gallon of coating, as applied [sum all the individual HAP contents from (c)];
 - e. the number of gallons of each coating employed;
 - f. the name and identification of each cleanup material employed;
 - g. the individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, as applied;

- h. the total combined HAP content of each cleanup material, in pounds of combined HAPs per gallon of cleanup material, as applied [sum all the individual HAP contents from (g)];
- i. the number of gallons of each cleanup material employed;
- j. the total individual HAP emissions from all coatings and cleanup materials employed, in tons per month [for each HAP, the sum of (c) times (e) for all of the coatings plus the sum of (g) times (i) for all of the cleanup materials, the result is multiplied by 1 minus the control efficiency and then divided by 2000 lbs/ton];
- k. the total combined HAP emissions from all coatings and cleanup materials employed, in tons per month [the sum of (d) times (e) for all of the coatings plus the sum of (h) times (i) for all of the cleanup materials, the result is multiplied by 1 minus the control efficiency and then divided by 2000 lbs/ton];
- l. the total VOC emissions from all coatings and cleanup materials employed, in tons per month [the sum of (b) times (e) for all of the coatings plus the sum of (b) times (i) for all of the cleanup materials, the result is multiplied by 1 minus the control efficiency and then divided by 2000 lbs/ton];
- m. the rolling, 12-month summation of the total VOC emissions from all coatings and cleanup materials employed, in tons per year [sum of (l) for the previous 12 calendar months];
- n. the rolling, 12-month summation of individual HAP emissions from all coatings and cleanup materials employed, in tons per year [the sum of (j) for the previous 12 calendar months]; and
- o. the rolling, 12-month summation of the total combined HAP emissions from all coatings and cleanup materials employed, in tons per year [the sum of (k) for the previous 12 calendar months].

5. The permit to install for this emissions unit (K001) was evaluated based on the actual 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Ethyl Acetate

TLV (mg/m3): 1440
 Maximum Hourly Emission Rate (lbs/hr): 9.23
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 811.6
 MAGLC (ug/m3): 34,285

Pollutant: Ethanol

TLV (mg/m3): 1880
 Maximum Hourly Emission Rate (lbs/hr): 9.23
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 811.6
 MAGLC (ug/m3): 44,761

Pollutant: Toluene

TLV (mg/m3): 1880
 Maximum Hourly Emission Rate (lbs/hr): 9.23
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 811.6
 MAGLC (ug/m3): 4,476

6. 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.).
7. 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 that identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator did not comply with the temperature limitation specified in section B.1 above.
2. The permittee shall submit pressure differential deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified in section B.3 above.
3. The permittee shall submit deviation (excursion) reports that identify each daily record showing that the calculated, controlled VOC emission rate exceeded 9.23 lbs/hr and the actual controlled average hourly VOC emission rate for that day.
4. The permittee shall submit deviation (excursion) reports that identify all exceedances of the 90% overall VOC emission reduction limitation and actual VOC emission reduction for that period.
5. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month facility emission limitations for VOC, individual HAP, and combined HAP as specified in section A.1.
6. The deviation reports shall be submitted as specified in Part I - General Term and Condition 3 of this permit.
7. The permittee shall submit annual reports that specify the VOC, total HAP and individual HAP emissions, in tons, for the entire facility. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

E. Testing Requirements

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
Emission Limitation:
9.23 lbs/hr of VOC

Applicable Compliance Method:

Compliance may be demonstrated based upon the record keeping requirements specified in section C.3 of these terms and conditions.

Compliance shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 25 and the procedures specified in OAC rule 3745-21-10(C).

USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) cleanup materials, respectively. If, pursuant to section 11.4 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or cleanup material, 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.
Emission Limitation:
40.4 tpy of VOC

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable VOC emission limitation (9.23 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.
Emission Limitation:
90 percent overall VOC emission reduction as calculated over a calendar month.

81% overall control efficiency
90% destruction efficiency

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in section E.2.

If required, the capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995.
Emission Limitation:
99.9 tpy of VOC for the entire facility

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in section C.5 of these terms and conditions. Formulation data or USEPA Method 24 shall be used to determine the VOC content of each coating and cleanup material.

Emission Limitation:

24.9 tpy of total combined HAPs for the entire facility

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in section C.5 of these terms and conditions. Formulation data or USEPA Method 24 shall be used to determine the HAP content of each coating and cleanup material.

Emission Limitation:

9.9 tpy of any individual HAP for the entire facility

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in section C.5 of these terms and conditions. Formulation data or USEPA Method 24 shall be used to determine the HAP content of each coating and cleanup material.

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

a. The emission testing shall be conducted within 6 months of the effective date of this permit and within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for VOC.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for VOC, Methods 1 through 4 and 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 unit is operating at or near its maximum capacity, unless otherwise specified or approved by Akron RAQMD.

e. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in "OAC rule 3745-21-10" or the approved alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

f. The reported VOC mass emission value shall have been converted from "as carbon" to actual VOC emission rate. The determination of the weight fraction of carbon may be based on standard analytical techniques or material formulation data.

The performance test shall be conducted in accordance with the procedures outlined in both 40 CFR 60.444 and 40 CFR 60.446.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Akron RAQMD. 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 Akron RAQMD's refusal to accept the results of the emission test(s).

Personnel from the Akron RAQMD shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Akron RAQMD 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 Akron RAQMD.

F. Miscellaneous Requirements

1. Pursuant to OAC rule 3745-35-07, sections A, B, C, D, E, and F of these terms and conditions constitute federally enforceable portions of this permit.