

Facility ID: 1409030976 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: 1409030976 Emissions Unit ID: K001 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>
K001 - Engine Cover Paint Line 1 with recuperative thermal oxidizer	OAC rule 3745-31-05(A)(3) (PTI 14-05786)	Volatile organic compound (VOC) emissions shall not exceed 54.25 pounds per day, excluding cleanup material.* Volatile organic compound (VOC) emissions shall not exceed 9.06 tons per year (TPY), including cleanup material. Nitrogen oxides (NOx) emissions shall not exceed 1.21 pounds per hour and 5.3 tons per year (TPY).* Carbon monoxide (CO) emissions shall not exceed 1.63 pounds per hour and 7.14 tons per year (TPY).* * The daily emissions limitation for VOC and the hourly and annual emission limitations for NOx and CO are based upon the emissions units' potential to emit. Therefore, no records are required to demonstrate compliance with these limitations.
	OAC rule 3745-21-07(G)	See terms and conditions A.2.a, A.2.b, and A.2.c. See Sections B.1, B.2, B.3, and B.4. The emission limitations specified by this rule are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- (a) The VOC content of each coating employed in this emissions unit shall not exceed 6.0 pounds per gallon, as applied.
 The VOC content of each cleanup material employed in this emissions unit shall not exceed 7.7 pounds per gallon.
 The permittee shall operate the thermal oxidizer serving the spray paint booth and curing oven of emissions unit K001 so that the overall control efficiency is equal to or greater than 95 percent, by weight.
 Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emission limitations, material usage limitations, VOC content limitations, and the use of a thermal oxidizer having an overall VOC control efficiency of at least 95%.

B. Operational Restrictions

1. The maximum annual usage of all coatings employed in this emissions unit shall not exceed 58,692 gallons of coating per year.
2. The maximum annual usage of all cleanup materials employed in this emissions unit shall not exceed 950 gallons of cleanup material per year.

3. The thermal oxidizer shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.
4. The average temperature of the combustion chamber within the thermal oxidizer, for any 3-hour block of time while 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.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each month for the purpose of determining annual VOC emissions:
 - a. the name and identification number of each coating, as applied;
 - b. the VOC content of each coating, as applied, in pounds per gallon;
 - c. the number of gallons of each coating employed;
 - d. the name and identification of each cleanup material employed;
 - e. the number of gallons of each cleanup material employed;
 - f. the VOC content of each cleanup material, in pounds per gallon;
 - g. the total uncontrolled VOC emissions from all coatings and cleanup materials employed, in pounds or tons; and
 - h. the calculated, controlled VOC emission rate for all coatings and cleanup materials, in pounds or tons (the controlled VOC emission rate shall be calculated using the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance).
2. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the temperature within the thermal oxidizer 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 for the control equipment:

- a. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
- b. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, 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 that the emissions unit was in compliance.
3. 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 SCREEN3 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN3 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: n-butyl acetate
 TLV (ug/m3): 712,600
 Maximum Hourly Emission Rate (lbs/hr): 1.04
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 55.12
 MAGLC (ug/m3): 16,967

4. The above described evaluation in Section C.3 determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per ORC 3704.03(F)(4)(d), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. 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.).

The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.

D. Reporting Requirements

1. The permittee shall submit annual reports that specify the total VOC emissions, in tons, and the total usage, in gallons, for all coatings and cleanup materials employed in this emissions unit for the previous calendar year.

These reports shall be submitted to the Hamilton County Department of Environmental Services by January 31 of each year.

2. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any record showing the use of noncomplying coatings and/or cleanup materials (i.e., VOC contents). The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month.
3. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any daily record showing the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month.
4. 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, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated the emissions unit was in compliance.

These quarterly deviation reports shall be submitted to the Hamilton County Department of Environmental Services by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters.

E. Testing Requirements

1. Compliance with the emission limitations specified in Section A.1 shall be determined by the following methods:

Emission Limitation:
Volatile organic compound (VOC) emissions shall not exceed 54.25 pounds per day, excluding cleanup material.

Applicable Compliance Method:
The pound per day emission limitation above is based upon the emissions unit's potential to emit, operating 24 hours per day. Therefore, no daily records are required to demonstrate compliance with this limitation. Compliance with the 54.25 lbs/day of VOC emission limitation may be demonstrated by the maximum hourly production and material usage rates as provided in the PTI application 14-05786, dated November 7, 2005, and the allowable coating VOC content limitation of 6.0 pounds of VOC/gallon.

Emission Limitation:
Volatile organic compound (VOC) emissions shall not exceed 9.06 tons per year (TPY), including cleanup material.

Applicable Compliance Method:
Compliance with the annual controlled VOC emissions limitation of 9.06 TPY shall be demonstrated by the record keeping requirements listed in Section C.1 and the emissions testing conducted as required under Section E.2 of this permit.

Emission Limitations:
Nitrogen oxides (NOx) emissions shall not exceed 1.21 pounds per hour and 5.3 tons per year (TPY).

Applicable Compliance Method:
The pound per hour and annual emission limitations above are based upon the emissions unit's potential to emit, operating 8,760 hours per year. Therefore, no records are required to demonstrate compliance with these limits. The 1.21 lbs/hour of NOx emission limitation is the manufacturer's guaranteed oxidizer emissions rate and oven design specification for natural gas combustion as provided in the PTI application 14-05786, dated November 7, 2005. Compliance with the annual emission limitation shall be determined by multiplying the maximum pound per hour emissions rate of 1.21 lbs of NOx/hour by 8760 hours per year and dividing by 2000 lbs/ton.

Emission Limitations:
Carbon monoxide (CO) emissions shall not exceed 1.63 pounds per hour and 7.14 tons per year (TPY).

Applicable Compliance Method:
The pound per hour and annual emission limitations above are based upon the emissions unit's potential to emit, operating 8,760 hours per year. Therefore, no records are required to demonstrate compliance with these limits. The 1.63 lbs/hour of CO emission limitation is the manufacturer's guaranteed oxidizer emissions rate and oven design specification for natural gas combustion as provided in the PTI application 14-05786, dated November 7, 2005. Compliance with the annual emissions limitation shall be determined by multiplying the maximum pound per hour emission rate of 1.63 lbs of CO/hour by 8760 hours per year and dividing by 2000 lbs/ton.

Emission Limitations:
The VOC content of each coating employed in this emissions unit shall not exceed 6.0 pounds per gallon, as applied.

The VOC content of each cleanup material employed in this emissions unit shall not exceed 7.7 pounds per gallon.

Applicable Compliance Method:
Compliance with the above limits shall be demonstrated by the record keeping requirements in Section C.1 of this permit and the following USEPA methods:

USEPA Methods 24 and 24A shall be used to determine the VOC contents for the coatings and cleanup materials employed in this emissions unit. If, pursuant to, 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.

Emissions Limitation:
The overall control efficiency of the thermal oxidizer is equal to or greater than 95 percent, by weight.

Applicable Compliance Method:

Compliance with the emission limitation above shall be based upon on the results of emission testing conducted to determine overall control efficiency as specified in Section E.2 of this permit.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emissions testing shall be conducted within six months of expiration of this permit.
 - b. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency limitation (95%) for VOC emissions from emissions unit K001.
 - c. The following test methods shall be employed to demonstrate compliance with the overall control efficiency:
 - (i) 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. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.)
 - (ii) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.
 - f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Hamilton County Department of Environmental Services refusal to accept the results of the emission test(s).
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.
 - f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Hamilton County Department of Environmental Services refusal to accept the results of the emission test(s).
- Personnel from the Hamilton County Department of Environmental Services 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 Hamilton County Department of Environmental Services 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 Hamilton County Department of Environmental Services.

F. Miscellaneous Requirements

1. The following terms and conditions are federally enforceable: Sections A, B, C.1, C.2, D, and E.