

Facility ID: 1409040883 Issuance type: Final State Permit To Operate

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

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

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

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

Facility ID: 1409040883 Emissions Unit ID: K004 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>
K004 - Miscellaneous Metal Parts Coating Line, consisting of surface pretreatment, three duplex spray coating application stations, a powder coating application station, and drying ovens connected by a monorail conveyor system.	OAC rule 3745-31-05(A)(3) (PTI 14-05946)	Volatile Organic Compound (VOC) emissions shall not exceed 168 pounds per hour, excluding cleanup and cleaning solvent. See term and condition A.2.i.
	OAC rule 3745-31-05(A)(3)(b)	The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-09(U)(1)(b), 3745-21-09(U)(1)(c), 3745-21-09(U)(1)(d), 3745-21-09(U)(1)(i), and 3745-31-05(C). See terms and conditions A.2.a and A.2.k.
	OAC rule 3745-31-05(C)	See terms and conditions A.2.b, A.2.c, and Section B.1.
	Synthetic Minor to Avoid Title V and Non-Attainment New Source Review	
	OAC rule 3745-21-09(U)(1)(b)	See term and condition A.2.d.
	OAC rule 3745-21-09(U)(1)(c)	See term and condition A.2.e.
	OAC rule 3745-21-09(U)(1)(d)	See term and condition A.2.f.
	OAC rule 3745-21-09(U)(1)(i)	See term and condition A.2.g.
	OAC rule 3745-17-07(A)(1)	See term and condition A.2.h.
	OAC rule 3745-17-11(B)(1)	Particulate emissions (PE) shall not exceed 1.72 pounds per hour. See term and condition A.2.i and Section B.2.
	OAC rule 3745-15-07(A)	See term and condition A.2.j and Section C.5.

2. Additional Terms and Conditions

- (a) The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions (PE) or particulate matter emissions 10 microns and less in diameter (PM10) from this air contaminant source because the calculated annual emission rate for PE and PM10 is less than ten tons per year, individually, taking into account the federally enforceable rule limit of 1.72 lb of PE per hour under OAC rule 3745-17-11(B). This is based upon the premise that all PM10 is considered to be PE.
The total usage of hazardous air pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act, from emissions units K004 (Miscellaneous Metal Parts Coating Line), P002 (Abrasive Blasting Enclosure), other de minimis air contaminant sources, as defined in OAC rule 3745-15-05 and other air contaminant sources exempt from the requirement to obtain a permit to install pursuant to OAC rule 3745-31-03 installed subsequent to the issuance of this permit combined shall not exceed 9.9 tons per year (TPY)* for any single HAP, as a rolling, 12-month summation and 24.9 TPY* for any combination of HAPs, as a rolling, 12-month summation.

*This assumes that the amount of HAPs used is equivalent to the amount of HAPs that will evaporate and be emitted.

The permittee has existing records to demonstrate compliance with this emissions limitation upon

permit issuance.

The volatile organic compound (VOC) emissions from emissions unit K004 (Miscellaneous Metal Parts Coating Line), including cleanup and cleaning solvent emissions, shall not exceed 89.32 TPY based upon a rolling, 12-month summation.

The permittee has existing records to demonstrate compliance with this emissions limitation upon permit issuance.

The VOC content of zinc rich primer coatings employed in this emissions unit shall not exceed a daily volume-weighted average of 4.0 lbs per gallon, as applied, excluding water and exempt solvents.

The VOC content of extreme performance coatings employed in this emissions unit shall not exceed a daily volume-weighted average of 3.5 lbs per gallon, as applied, excluding water and exempt solvents.

The VOC content of coatings dried at temperatures not exceeding 200 degrees Fahrenheit employed in this emissions unit shall not exceed a daily volume-weighted average of 3.5 lbs per gallon, as applied, excluding water and exempt solvents.

The VOC content of coatings employed in this emissions unit, that are not specified under terms A.2.d, A.2.e, and A.2.f above, shall not exceed a daily volume-weighted average of 3.0 lbs per gallon, as applied, excluding water and exempt solvents.

Visible particulate emissions from any stack serving this emissions unit shall not exceed 20% opacity, as a six-minute average, except as specified by rule.

The VOC emission limitation outlined in Section A.1 is equal to, and the particulate emissions limitation outlined in Section A.1 is greater than, the emissions unit's potential to emit (PTE). Therefore, no records are required to demonstrate compliance with these hourly emission limitations.

The particulate emissions from this emissions unit shall not cause a public nuisance, as defined in OAC rule 3745-15-07.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the nitrogen oxide (NOx) and carbon monoxide (CO) emissions from this air contaminant source since the uncontrolled potential to emit for NOx and CO, individually, is less than ten tons per year.

Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the VOC content and emission limitations.

B. Operational Restrictions

1. The total VOC input from coatings and cleanup/cleaning solvents employed in emissions unit K004 (Miscellaneous Metal Parts Coating Line) shall not exceed 89.32 tons per year (TPY). Compliance with the above limitation shall be based upon a rolling, 12 month-summation of the VOC input. The VOC input shall be determined by multiplying the number of gallons of each coating and cleanup/cleaning solvent employed per month by the VOC content of each coating and cleanup/cleaning solvent, in pounds per gallon. The VOC input of coatings and cleanup/cleaning solvents shall be assumed to be 100 percent of the VOC content of the coatings and cleanup/cleaning solvents employed and, as such, is equivalent to the VOC emission rate.
2. The permittee shall operate the dry filtration system (fabric filters) whenever this emissions unit is in operation.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain daily records that document any time periods when the dry filtration system (fabric filters) was not in service when the emissions unit was in operation.
2. The permittee shall collect and record the following information each day for this emissions unit:
 - a. the name, identification number, and type (zinc rich, extreme performance, dried <200 degrees F, other) of each coating, as applied;
 - b. the VOC content (excluding water and exempt solvents) of each coating, as applied;
 - c. the number of gallons (excluding water and exempt solvents) of each coating, as applied;
 - d. the daily VOC emissions from all the coatings employed, in pounds, [i.e., the sum of (b) times (c) for each coating employed]; and
 - e. the daily volume-weighted average VOC content of all coatings used to show compliance with each of the following terms: A.2.d thru A.2.g, individually, as applied, calculated in accordance with the equation specified in paragraph (B)(9) of OAC rule 3745-21-10 for CVOC,2.
3. The permittee shall collect and record the following information each month for this emissions unit:
 - a. the name and identification number of each coating and cleanup/cleaning solvent employed;
 - b. the VOC content for each coating, in pounds of VOC per gallon of coating, excluding water and exempt solvents;
 - c. the VOC content for each cleanup/cleaning solvent, in pounds of VOC per gallon of cleaning solvent;
 - d. the number of gallons of each coating employed, excluding water and exempt solvents;
 - e. the number of gallons of each cleanup/cleaning solvent employed;
 - f. the total VOC input/emissions in pounds or tons [summation of (b x d) for all coatings plus (c x e) for all cleanup/cleaning solvents and divided by 2,000 pounds per ton if the units are in tons]; and
 - g. the updated rolling, 12-month summation of the total VOC input/emissions, in tons. This shall include the information for the current month and the preceding eleven calendar months.
4. The permittee shall collect and record the following information each month for the emissions units identified in term and condition A.2.b:
 - a. The name and identification number of each coating employed.
 - b. The individual HAP* content for each HAP of each coating, in pounds of individual HAP per gallon of coating,

as applied.

- c. 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 (b)].
- d. The number of gallons of each coating employed.
- e. The name and identification number of each cleanup/cleaning solvent employed.
- f. The individual HAP content for each HAP of each cleaning solvent, in pounds of individual HAP per gallon of cleanup/cleaning solvent, as applied.
- g. The total combined HAP content of each cleaning solvent, in pounds of combined HAPs per gallon of cleanup/cleaning solvent, as applied [sum all the individual HAP contents from (f)].
- h. The number of gallons of each cleanup/cleaning solvent employed.
- i. The total individual HAP usage** for each HAP from all coatings and cleanup/cleaning solvents employed, in pounds or tons [for each HAP, the sum of (b) times (d) for all coatings plus the sum of (f) times (h) for all cleanup/cleaning solvents, and divided by 2,000 pounds per ton if the units are in tons].
- j. The total combined HAP usage** from all coatings and cleanup/cleaning solvents employed, in pounds or tons [the sum of (c) times (d) for all coatings plus the sum of (g) times (h) for all cleanup/cleaning solvents, and divided by 2,000 pounds per ton if the units are in tons].
- k. The updated rolling, 12-month summation of usage for each individual HAP**, in tons. This shall include the information for the current month and the preceding eleven calendar months.
- l. The updated rolling, 12-month summation of usage for the total combined HAPs**, in tons. This shall include the information for the current month and the preceding eleven calendar months.

* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Hamilton County Department of Environmental Services contact. This information does not have to be kept on a line-by-line basis.

** This assumes the amount of HAPs used is equivalent to the amount of HAPs that will evaporate and be emitted.

- 5. The permittee shall develop, implement, and maintain a preventive maintenance and malfunction plan to minimize particulate emissions, during operation of this emissions unit, in such a manner as to prevent the emissions unit from causing a public nuisance.

The preventive maintenance and malfunction plan and related records must be kept onsite and available for inspection during regular office hours.

- 6. The permit to install for this emissions unit K004 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: Toluene
 TLV (ug/m3): 75,360
 Maximum Hourly Emission Rate (lbs/hr): 9.12
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,371
 MAGLC (ug/m3): 1,794

- 7. The above described evaluation 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 notify the Hamilton County Department of Environmental Services in writing of any daily record showing that the dry filtration system (fabric filters) was not in service when the 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 after the event occurs.

2. The permittee shall notify the Hamilton County Department of Environmental Services in writing of each daily record showing a daily volume-weighted average coating VOC content greater than the limitations specified in terms and conditions A.2.d, A.2.e, A.2.f, or A.2.g, as applicable. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.
3. The permittee shall notify the Hamilton County Department of Environmental Services of any exceedance of the rolling, 12-month VOC input/emission limitation outlined in term and condition A.2.c and Section B.1. If no exceedances occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively).
4. The permittee shall notify the Hamilton County Department of Environmental Services of any exceedance of the HAP emission limitations outlined in term and condition A.2.b. If no exceedances occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively).
5. The permittee shall submit annual reports which specify the total VOC emissions, total individual HAP emissions, and total combined HAP emissions from emissions unit K004 for the previous calendar year. These reports shall be submitted to the Hamilton County Department of Environmental Services by January 31 of each year.

E. Testing Requirements

1. Compliance with the emission limitations in Sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation:

Volatile Organic Compound (VOC) emissions shall not exceed 168 pounds per hour, excluding cleanup and cleaning solvents.

Applicable Compliance Method:

The hourly VOC emission rate is based on the emissions unit's potential to emit. The potential to emit was calculated by: (maximum spray coating application rate of 42 gallons per hour) x (4.0 lbs of VOC per gallon of coating as worst-case zinc rich primer).

Emission Limitation:

Particulate emissions (PE) shall not exceed 1.72 pounds per hour.

Applicable Compliance Method:

The hourly PE emission rate is based on Table I in OAC rule 3745-17-11.

To determine actual PE rate, the following equation shall be used:

$E = \text{maximum coating solids usage rate, in pounds per hour,} \times (1-TE) \times (1-CE)$

where E = PE rate (lbs/hr);

TE = fractional transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used (0.40); and

CE = fractional control efficiency of the control equipment (blanket fabric filter) on the duplex coating spray station (0.997).

The permittee shall demonstrate that the permittee-supplied particulate emission factors and controlled mass rate of particulate emissions from the spray coating stations as provided in PTI application 14-05946, submitted May 14, 2007, are in compliance with the above emission limitation based upon the results of emission testing required in Section E.2 of this permit.

Emission Limitation:

89.32 TPY of VOC emissions from emissions unit K004, including cleanup and cleaning solvents, based on a rolling 12-month summation.

Applicable Compliance Method:

Compliance with the annual VOC emissions limitation in term and condition A.2.c shall be based upon the record keeping requirements as specified in section C.3.

Emission Limitation:

9.9 TPY for any single HAP and 24.9 TPY for combined HAPs, based on a rolling 12-month summation for the emissions units listed in section A.2.b.

Applicable Compliance Method:

Compliance with the HAP emission limitations in term and condition A.2.b shall be demonstrated by the record keeping requirements specified in section C.4.

Emission Limitation:

Visible particulate emissions shall not exceed 20 percent opacity, as a six-minute average, except as provided by the rule.

Applicable Compliance Method:

When requested, compliance with the above visible emission limitation shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures

specified in USEPA Reference Method 9.

Emission Limitations:

The VOC content of zinc rich primer coatings employed in this emissions unit shall not exceed a daily volume-weighted average of 4.0 lbs per gallon, as applied, excluding water and exempt solvents.

The VOC content of extreme performance coatings employed in this emissions unit shall not exceed a daily volume-weighted average of 3.5 lbs per gallon, as applied, excluding water and exempt solvents.

The VOC content of coatings dried at temperatures not exceeding 200 degrees Fahrenheit employed in this emissions unit shall not exceed a daily volume-weighted average of 3.5 lbs per gallon, as applied, excluding water and exempt solvents.

The VOC content of coatings employed in this emissions unit, that are not specified under terms A.2.d, A.2.e, and A.2.f, shall not exceed a daily volume-weighted average of 3.0 lbs per gallon, as applied, excluding water and exempt solvents.

Applicable Compliance Method:

In accordance with OAC rule 3745-21-04(B)(5), facilities located in Ashtabula, Butler, Clark, Clermont, Cuyahoga, Delaware, Franklin, Geauga, Greene, Hamilton, Lake, Licking, Lorain, Lucas, Mahoning, Medina, Miami, Montgomery, Portage, Stark, Summit, Trumbull, Warren and Wood Counties shall use USEPA Method 24 to determine the VOC contents of the coatings. If an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24.

U.S. EPA Method 24 or formulation data shall be used to determine the VOC contents of the cleanup and cleaning solvents.

Emission Limitation:

The controlled potential to emit for PE and PM10 is less than ten tons per year.

Applicable Compliance Method:

The annual PE-PM10 emission rate shall be calculated by multiplying the hourly PE emission rate in term E.1.b by the maximum operating schedule of 8760 hours/year and dividing by 2000 pounds/ton. All PM10 are assumed to be PE.

Emission Limitation:

The uncontrolled potential to emit for NOx and CO emissions is less than ten tons per year.

Applicable Compliance Method:

The annual NOx and CO emission rates are based on this emissions unit's uncontrolled potential to emit from the combustion of natural gas in the surface pretreatment tank burners and drying ovens. The annual NOx and CO emission rates were calculated by the following equation:

$E, \text{NOx} = \text{total oven/burner heat input of } 12.5 \text{ mmBtu/hour} \times 0.098 \text{ lbs NOx/mmBtu per AP-42 Table 1.4} \times 8760 \text{ hours}/(2000)$; and

$E, \text{CO} = \text{total oven/burner heat input of } 12.5 \text{ mmBtu/hour} \times 0.082 \text{ lbs CO/mmBtu per AP-42 Table 1.4} \times 8760 \text{ hours}/(2000)$;

where E = Emissions Rate, (Pollutant) (tons per year)

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 expiration of this permit.
 - b. The emission testing shall be conducted to demonstrate that the controlled mass rate of particulate emissions from the duplex spray coating stations on the coating line are in compliance with the allowable particulate mass emissions rate, in pounds per hour.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate:

Methods 1 thru 5 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 coating application 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. The following terms and conditions of this installation permit are federally enforceable: Sections A, B, C.1, C.2, C.3, C.4, C.5, D, and E.