Facility ID: 0857093330 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.

Facility ID: 0857093330 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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
K001 - roll coater and oven (metal parts)	OAC rule 3745-31-05(A)(3) PTI 08-04867	The organic compound (OC) emissions shall not exceed 5.48 lbs/hour, including cleanup. See A.2.a. The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-09(U)(2)(e)(i).
	OAC rule 3745-21-09(U)(2)(e)(i)	The coating usage rate shall be less than or equal to 8 gallons per day.
	OAC 3745-31-05(C) (synthetic minor to avoid Title V and voluntary limits)	The emissions of Hazardous Air Pollutants (HAPS), as identified in Section 112(b) of Title III of the Clean Air Act, from emissions units K001, K002, R001 - R009, deminimis, permit exempt, and permit by rule air contaminant sources combined shall be less than 9.9 tons for any single HAP and 24.9 tons for any combination of HAPs, per rolling 12-month summation. The organic compound (OC) emissions shall not exceed 87.68 lbs/day and 16.0 tons/year, including cleanup. See A.2.b.
	OAC rule 3745-114-01 and ORC 3704.03(F)	See section C.4.

2. **Additional Terms and Conditions**

   (a) The 5.48 pound of OC per hour limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.
   The permittee has requested federally enforceable emissions restrictions to limit the daily and annual OC emissions to establish the PTE for this pollutant.

B. **Operational Restrictions**

1. The usage rate of coatings for this emissions unit shall not exceed 8 gallons per day.

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

1. The permittee shall collect and record the following information for each day for the coating operation:

   a. The company identification for each coating and cleanup material employed.

   b. The number of gallons of each coating and cleanup material employed.

   c. The organic compound content of each coating and cleanup material, in pounds per gallon.

   d. The total organic compound emission rate for all coatings and cleanup materials, in pounds per day.

2. The permittee shall calculate and record the total annual OC emissions from coatings and cleanup materials, [i.e.,

the sum of the daily OC emission rates from the coating materials for the calendar year in Section C.1.d].

3. The permittee shall collect and record the following information for each month for emissions units K001, K002, R001 - R009, deminimis, permit exempt, and permit by rule air contaminant sources combined for the purpose of determining the HAP* emissions:

a. The name and company identification of each coating material employed.

b. The individual HAP content for each HAP of each coating material employed, in pounds of individual HAP per gallon, as applied.

c. The total combined HAP content of each coating material employed, in pounds of combined HAP per gallon [i.e., the sum of individual HAP contents from (b)], as applied.

d. The number of gallons of each coating material employed.

e. The name and company identification of each cleanup material employed.

f. The individual HAP content for each HAP of each cleanup material employed, in pounds of individual HAP per gallon, as applied.

g. The total combined HAP content of each cleanup material employed, in pounds of combined HAP per gallon [i.e., the sum of individual HAP contents from (f)], as applied.

h. The number of gallons of each cleanup material employed.

i. The total individual HAP emissions for each HAP from all coating and cleanup materials employed [i.e., the summation of (b x d) + (f x h)], in tons.

j. The total combined HAP emissions from all coating and cleanup materials employed [i.e., the summation of (c x d) + (g x h), in tons.

k. The rolling 12-month summation of the total individual HAP emissions for each HAP from all coating and cleanup materials [i.e., the rolling 12-month summation of (I)], in tons per year.

l. The rolling 12-month summation of the total combined HAP emissions from all coating and cleanup materials [i.e., the rolling 12-month summation of (j)], in tons per year.
*A listing of the Hazardous Air Pollutants can be found n Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency.

Material Safety Data Sheets typically include a listing of the solvents contained in the coating or cleanup materials. This information does not have to be kept on a emission unit-by-emission unit basis.

4. The permit to install for this/these emissions unit K001 was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee in the permit application. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN 3.0, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., 24 hours per day and 7 days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

TLV/10 x 8/X x 5/Y = 4 TLV/XY = MAGLC

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: methyl isobutyl ketone
TLV (mg/m3): 204.83
Maximum Hourly Emission Rate (lbs/hr): 0.772
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 214.2
MAGLC (ug/m3): 4,876.8

Toxic Contaminant: xylene
TLV (mg/m3): 434.19
Maximum Hourly Emission Rate (lbs/hr): 0.386

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 107.1
MAGLC (ug/m3): 10,337.9

Toxic Contaminant: isophorone
TLV (mg/m3): 28.26
Maximum Hourly Emission Rate (lbs/hr): 0.772
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 214.2
MAGLC (ug/m3): 673.0

The permittee, has demonstrated that emissions of methyl isobutyl ketone, xylene, and isophorone from emissions unit K001, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

5. Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, 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 new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;

   b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

   c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
   If the permittee determines that the "Toxic Air Contaminant Statute" 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 a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification" or if a new toxic is emitted, or the modeled toxic(s) is/are expected to exceed the previous modeled level(s), then the permittee shall apply for and obtain a final permit-to-install prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit-to-install application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and may require the permittee to submit a permit-to-install application for the increased emissions.

6. The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

   a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

   b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

   c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

   d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

7. The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

D. **Reporting Requirements**

1. The permittee shall notify the Director (appropriate District Office or local air agency) in writing of any daily record showing that the coating line employed more than the applicable maximum daily coating usage limit of 8 gallons per day. The notification shall include a copy of such record and shall be sent to the Director (appropriate District Office or local air agency) within 45 days after the exceedance occurs.

2. The permittee shall submit quarterly deviation (excursion) reports that included the following information when the emissions unit was in operation:

   a. each day the OC emissions exceeded the daily emissions limit specified in Section A.1. above, and the actual average hourly organic compound emissions for each such day; and

   b. any exceedances of the HAPs emission limits specified in Section A.1. above.

   The quarterly deviation reports shall be submitted to the Director (appropriate District Office or local air agency) in accordance with the General Terms and Conditions. These reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter.

3. The permittee shall submit annual reports to the Director (the appropriate District Office or local air agency) that specify the total OC emissions, in tons, the total coating usage, in gallons, and the total cleanup material usage, in gallons for this emissions unit. These reports shall be submitted by April 15 of each year and shall cover the

previous calendar year.

4. The permittee shall submit annual reports which specify the total tons per year of the individual HAP emissions from emissions units K001, K002, R001 - R009, deminimis, permit exempt, and permit by rule air contaminant sources, and the and combined HAPs emissions from these emission units. These reports shall be submitted by April 15 of each year and shall cover for the previous calendar year.

5. The permittee shall submit annual reports to the appropriate Ohio EPA District Office or local air agency, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

E. **Testing Requirements**

1. Compliance with the specified emission limitations in Section A.1. of this permit shall be demonstrated in accordance with the following methods:
Emission Limitation -
The coating usage shall be less than or equal to 8 gallons per day.

Applicable Compliance Method -
Compliance shall be based upon the coating usage record keeping requirements specified in C.1. of this permit.
Emission Limitation-
The organic compound (OC) emissions from this emissions unit shall not exceed 5.48 lb/hr.

Applicable Compliance Method-
Compliance shall be determined by summation of the following:

i. multiplying the maximum coating usage rate of 0.375 gal/hour multiplied by the coating OC content of 7.08 lb-OC/gal,

ii. multiplying the maximum cleanup material 0.375 gal/hour multiplied by the cleanup OC content of 7.53 lb-OC/gal.

If required, the permittee shall demonstrate compliance with the hourly OC emission limitation in accordance with Methods 18, 25, or 25A, of 40 CFR, Part 60, Appendix A.
Emission Limitation -
The OC emissions shall not exceed 87.68 lb/day OC, including cleanup

Applicable Compliance Method -
Compliance shall be determined by record keeping requirements specified in Section C.1. of this permit.
Emission Limitation -
The OC emissions shall not exceed 16.0 TPY OC, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Section C.2. of this permit and shall be the summation of the daily OC emission rates.
The emissions of Hazardous Air Pollutants (HAPS), as identified in Section 112(b) of Title III of the Clean Air Act, from emissions units K001, K002, R001 - R009, deminimis, permit exempt, and permit by rule air contaminant sources combined shall be less than 9.9 tons for any single HAP and 24.9 tons for any combination of HAPs, per rolling 12-month summation.

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Section C.3. of this permit.

2. 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 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 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.

F. **Miscellaneous Requirements**

1. None