

Facility ID: 1409000646 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: 1409000646 Emissions Unit ID: R003 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>
R003-Paint Spray Booth for Plastic Parts	OAC rule 3745-31-05(A)(3) (14-04050)	Volatile Organic Compound (VOC) emissions shall not exceed 8 pounds per hour and 40 pounds per day and 7.3 TPY (includes cleanup). See term A.2.a. See sections B.1 and B.2.
	OAC rule 3745-31-05(C) (Synthetic Minor to avoid RACT)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C). VOC emissions from emissions units R003, R005 and P009 combined, shall not exceed 24.9 tons per year based on a rolling 12-month summation.
	OAC rule 3745-21-07(G)(2)	See terms A.2.b and A.2.d. The requirements established pursuant to this rule are equivalent to the requirements of OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- (a) The hexamethylene diisocyanate emissions from this emissions unit shall not exceed 0.0095 lb/hr.
The total volatile organic compound (VOC) emissions from all the aerospace manufacturing and rework operations and associated cleaning and washoff processes located at this facility shall not exceed 24.9 TPY based on a rolling, 12-month summation. The 24.9 TPY rolling, 12-month summation includes emissions from non-metal and metal coating. "Coating" means a protective, decorative, or functional material applied in a thin layer to a surface. Such materials include, but are not limited to, paints, topcoats, varnishes, sealers, stains, washcoats, basecoats, inks and temporary protective coatings. "Cleaning material" means organic solvent used to remove coating materials from equipment used in aerospace manufacturing and rework operations. "Washoff material" means organic solvent used to remove coating from a substrate. "Volatile organic compound" means any volatile organic compound as defined in OAC rule 3745-21-01(B)(6).
Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the emission limitations.
The actual emissions of hazardous air pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act, from emissions units P009, R003, R005, all de minimus emissions units (as defined in OAC rule 3745-15-05), all emissions units exempt from the requirement to obtain a permit to install pursuant to OAC rule 3745-31-03 and future to be installed air contaminant sources, combined, shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

B. Operational Restrictions

1. The amount of coating CTO 10009 used in this emissions unit shall not exceed 0.53 gallon per hour, as employed.
2. The amount of coating CTO 10007 used in this emission unit shall not exceed 1.53 gallon per hour, as employed.

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 VOC content of each coating and cleanup material employed, in pounds of VOC per gallon.
 - d. the VOC emissions for each coating and cleanup material employed, i.e., (b)(c), in pounds per day;
 - e. the total VOC emissions for all coatings and cleanup materials employed, i.e., the sum of (d) for all coatings and cleanup materials employed, in pounds per day;
 - f. the total number of hours the emissions unit was in operation; and
 - g. the average hourly VOC emission rate for all coatings and cleanup materials, i.e., (e)/(f), in pounds VOC per hour (average).

These daily records shall be summarized annually to demonstrate compliance with the annual VOC emission limitation of 7.3 TPY.
2. The permittee shall collect and record the following information for each hour of coating operation when using CTO10009, CTO10007, or any coating containing hexamethylene diisocyanate:
 - a. The number of gallons of CTO10009 used per hour of operation;
 - b. The number of gallons of CTO10007 used per hour of operation;
 - c. The number of gallons of coating (containing hexamethylene diisocyanate) used per hour of operation;
 - d. The hexamethylene diisocyanate content (of each coating containing hexamethylene diisocyanate), in pounds hexamethylene diisocyanate per gallon of coating; and
 - e. The hourly hexamethylene diisocyanate emission rate, i.e., (c)(d), in pounds of hexamethylene diisocyanate per hour.
3. The permittee shall collect and record the following information each month for the emission units identified in term A.2.d:
 - a. The name and identification number of each coating, as applied.
 - 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 of each cleanup material employed.
 - f. The individual HAP content for each HAP of each cleanup material in pounds of individual HAP per gallon of cleanup material, as applied.
 - g. 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 (f)].
 - h. The number of gallons of each cleanup material employed.
 - i. The total individual HAP emissions for each HAP from all coatings and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d) for each coating and the sum of (f) times (h) for each cleanup material].
 - j. The total combined HAP emissions from all coatings and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d) for each coating plus the sum of (g) times (h) for each cleanup material].
 - k. The updated rolling, 12-month summation for individual HAP emissions for each HAP, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.
 - l. The updated rolling, 12-month summation for total combined HAP emissions, in pounds or 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 Ohio EPA field office or local air agency contact. This information does not have to be kept on a line-by-line basis.
4. The permittee shall collect and record the following information each month for emissions units R003, R005 and P009 combined:
 - a. The name and identification number of each coating, cleaning and washoff material employed.
 - b. The volume, in gallons, of each coating, cleaning and washoff material employed.
 - c. The VOC content of each coating, cleaning and washoff material, in pounds of VOC per gallon, as applied.
 - d. The amount of VOC emitted for all coating, cleaning and washoff materials employed, in pounds per month.
 - e. The rolling 12-month* usage for coating, cleaning and washoff materials, in gallons.

- f. The rolling 12-month* VOC emission rate in tons per year (in tons, rounded off to one decimal place).

*A rolling 12-month period includes the previous set of 12 months.

- g. Monthly records shall be completed within 15 days following the end of each calendar month.

The records shall be maintained for five years, and upon request the permittee shall submit such records to the appropriate Ohio EPA District Office or local air agency.

5. The permittee shall maintain for this facility all purchase orders and invoices of VOC - containing materials. The permittee shall retain such purchase orders and invoices for at least five years from the date of issuance. Upon request, the permittee shall make available to the Director of the Ohio EPA, or an authorized representative of the Director, such purchase orders and invoices for use in confirming the general accuracy of the records maintained and the reports submitted regarding material usage.
6. The permit to install for this emissions unit R003 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: Formaldehyde

TLV (ug/m3): 370

Maximum Hourly Emission Rate (lbs/hr): 0.006

Predicted 1 Hour Maximum Ground-level Concentration (ug/m3): 0.5341

Maximum Acceptable Ground-level Concentration (MAGLC) (ug/m3): 8.809

Pollutant: 2 butoxy ethanol

TLV (ug/m3): 121,000

Maximum Hourly Emission Rate (lbs/hr): 2.943

Predicted 1 Hour Maximum Ground-level Concentration (ug/m3): 248.4

Maximum Acceptable Ground-level Concentration (MAGLC) (ug/m3): 2881

Pollutant: butyl alcohol

TLV (ug/m3): 152,000

Maximum Hourly Emission Rate (lbs/hr): 3.511

Predicted 1 Hour Maximum Ground-level Concentration (ug/m3): 297

Maximum Acceptable Ground-level Concentration (MAGLC) (ug/m3): 3619

Pollutant: cyclohexanone

TLV (ug/m3): 100,000

Maximum Hourly Emission Rate (lbs/hr): 2.652

Predicted 1 Hour Maximum Ground-level Concentration (ug/m3): 224

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

Pollutant: diethylene triamine

TLV (ug/m3): 4,200

Maximum Hourly Emission Rate (lbs/hr): 0.609

Predicted 1 Hour Maximum Ground-level Concentration (ug/m3): 51.43

Maximum Acceptable Ground-level Concentration (MAGLC) (ug/m3): 100

Pollutant: hexamethylene diisocyanate

TLV (ug/m3): 34

Maximum Hourly Emission Rate (lbs/hr): 0.0095

Predicted 1 Hour Maximum Ground-level Concentration (ug/m3): 0.8046

Maximum Acceptable Ground-level Concentration (MAGLC) (ug/m3): 0.81

The above described evaluation determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC (with the exception of hexamethylene diisocyanate). 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 deviation (excursion) reports which include the following information:

- a. An identification of each day during which the average hourly VOC emission rate exceeded 8 pounds per hour, and the actual average hourly VOC emission rate for each such day .
 - b. An identification of each day during which the VOC emission rate exceeded 40 pounds per day, and the actual VOC emission rate for each such day.
 - c. For the days in which coating CTO10009, CTO10007, or any coating containing hexamethylene diisocyanate is used, an identification of the hour(s) in which the 0.53 gal/hr, 1.53 gals/hr, or 0.0095 lb/hr usage and emission limits, respectively, were exceeded for each such day.
2. The permittee shall notify the Director (the appropriate Ohio EPA District Office or the local air agency) of any exceedance of the HAP emission limitations set forth in this Permit to Install. The permittee shall submit annual reports which identify all exceedances of these limitations, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year. If no exceedances occurred during the reporting period then a report is required stating so.
3. If the facility (emissions units R003, R005 and P009) has a rolling, 12 month record that exceeds 24.9 tons of VOC from combined operations associated with aerospace manufacturing and rework operations the permittee shall submit the following:
 - a. Within 30 days after the end of that rolling, 12-month period in which the exceedance occurred, a notification to the Hamilton County Department of Environmental Services that the VOC emission limit was exceeded .
 - b. Within three months after the end of that rolling, 12-month period in which the exceedance occurred, a compliance plan to the Hamilton County Department of Environmental Services to comply with the presumptive RACT standards specified within USEPA document 453/R-97-004 " Control of Volatile Organic Compound Emissions from Aerospace Manufacturing and Rework Operations" (December 1997). Any divergence from the presumptive RACT standards and the model rule provided within that document shall be described at the time of the submittal of the 3-month compliance plan. Compliance with the presumptive RACT standards is to be achieved within 12 months after the rolling, 12-month period exceedance, unless otherwise requested by the permittee and approved by USEPA as a revision to Ohio's state implementation plan for ozone.
 - c. Exceeding the 24.9 TPY VOC/OC limit is a violation for each day of the last month of each 12 month period in which the 24.9 TPY limit is exceeded regardless of whether a compliance plan is submitted.
4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions.

E. Testing Requirements

1. Compliance with the organic compound emission limitations of 8 pounds per hour, 40 pounds per day and 7.3 TPY shall be demonstrated by the recordkeeping requirements in section C.1.
2. Compliance with the emission limitation of 24.9 TPY VOC from emissions units R003, R005 and P009 combined based on a rolling 12-month summation shall be demonstrated by the recordkeeping requirements outlined in section C.4.
3. OAC rule 3745-21-10(B) shall be used to determine the VOC contents of the coatings, cleaning and washoff 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 ,cleaning or washoff material, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for the coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.
4. Compliance with the HAP usage limitations in term A.2.d shall be demonstrated by the recordkeeping requirements outlined in section C.3.
5. Compliance with the usage limitations in sections B.1 and B.2 shall be demonstrated by the recordkeeping requirements outlined in section C.2.

F. Miscellaneous Requirements

1. The following terms and conditions of this permit are federally enforceable: A, B, C.1-C.5, D and E.
2. This Federally Enforceable Permit limits the potential emissions of organic compounds from the aerospace manufacturing and rework processes and associated cleaning and washoff processes located at this facility to no more than 24.9 TPY during any rolling, 12-month period. Should VOC/OC emissions from the aerospace manufacturing and rework processes and associated cleaning and washoff processes exceed 24.9 TPY during any rolling, 12-month period, this facility should notify the Hamilton County Department of Environmental Services within 30 days.