

Facility ID: 0278030797 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.

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Facility ID: 0278030797 Emissions Unit ID: F001 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>
Sand Blast Cleaning Area	OAC rule 3745-31-05(A)(3) (PTI No. 02-21042) OAC rule 3745-17-07(A)(1)	Particulate emissions (PE) shall not exceed 13.5 pounds per hour and 10.8 tons per year. Visible fugitive particulate emissions from this emissions unit shall not exceed 20% opacity as a 3-minute average.
	OAC rule 3745-17-08	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**
  - (a) None

**B. Operational Restrictions**

1. The permittee shall use a dust suppressant additive to the abrasive that aids in reducing fugitive emissions. The additive will not be necessary if the facility switches to a non silica abrasive.

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

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. The permittee shall collect and record the following information for this emissions unit:
  - a. the total amount of abrasive blasting material used on a monthly basis, in pounds; and
  - b. a yearly summation of the amount of abrasive blasting material used, in pounds.

**D. Reporting Requirements**

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

The permittee may, upon receipt of written approval from the Ohio EPA Northeast District Office, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements.

**E. Testing Requirements**

1. Compliance with the emissions limitation(s) in section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):  
Emission Limitation:

Visible fugitive particulate emissions from this emissions unit shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(3) and (B)(3)(b).  
Emission Limitation:

Particulate emissions (PE) shall not exceed 13.5 lbs/hr.

Applicable Compliance Method:

Compliance shall be based on a one time calculation by using emission factors from AP-42, Section 13.2-1 (1997 update) for sandblasting (27 lbs/1000 lbs abrasive), and the maximum abrasive usage weight rate from the application.

$E(PE)_{blasting} = 27 \text{ lbs}/1000 \text{ lbs abr.} \times 500 \text{ lbs/hr} = 13.5 \text{ lbs/hr}$   
Emission Limitation:

Particulate emissions (PE) shall not exceed 10.8 tons/yr.

Applicable Compliance Method:

Compliance shall be based on a calculation by using emission factors from AP-42, Section 13.2-1 (1997 update) for sandblasting (27 lbs/1000 lbs abrasive), and the abrasive usage weight rate from C.2.b.

$E(PE)_{blasting} = 27 \text{ lbs}/1000 \text{ lbs abr.} \times \text{abrasive usage weight lbs/year.}$

Tons per year is determined by dividing E(PE) in lbs/year by 2000 lbs/ton.

**F. Miscellaneous Requirements**

1. None

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Facility ID: 0278030797 Emissions Unit ID: P001 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>
Large Stress Relief Furnace	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) shall not exceed 0.35 pound

(PTI No.02-21042)

per hour and 1.5 tons/year.

Nitrogen oxides (NOx) emissions shall not exceed 4.61 pounds per hour and 20.2 tons/year.

Carbon monoxide (CO) emissions shall not exceed 1.85 pounds per hour and 8.1 tons/year.

Volatile organic compound (VOC) emissions shall not exceed 0.25 pound per hour and 1.1 tons/year.

OAC rule 3745-17-07(A)(1)

Visible PE from the exhaust stack or egress points serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

OAC rule 3745-17-10

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

(a) None

**B. Operational Restrictions**

1. The permittee shall burn only natural gas in this emissions unit.

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

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A. of these terms and condition shall be determined in accordance with the following method(s):

Emission Limitation :

NOx emissions shall not exceed 4.61 lbs/hr and 20.2 tons/yr NOx.

Applicable Compliance Method:

Hourly compliance shall be based on a one time calculation by using emission factors from AP-42, Section 1.4 (1998) for natural gas combustion and the maximum capacity of the gas burners.

$E(NOx) = 0.046 \text{ MM scf/hr} \times 100 \text{ lbs NOx}/10E6 \text{ scf (AP-42)} = 4.61 \text{ lbs/hr}$

Annual emissions are determined by multiplying the hourly emissions by 8760 hrs/year and dividing by 2000 lbs/ton.

If required pursuant to OAC 3745-15-04, the permittee shall demonstrate compliance with the hourly NOx emission limit of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 7 or 7E.

Emission Limitation:

PE shall not exceed 0.35 lb/hr and 1.5 tons/yr PE.

Applicable Compliance Method:

Hourly compliance shall be based on a one time calculation by using emission factors from AP-42, Section 1.4 (1998) for natural gas combustion and the maximum capacity of the gas burners.

$E(PE) = 0.046 \text{ MM scf/hr} \times 7.6 \text{ lbs PE}/10E6 \text{ scf (AP-42)} = 0.35 \text{ lb/hr.}$

Annual emissions are determined by multiplying the hourly emissions by 8760 hrs/year and dividing by 2000 lbs/ton.

Emission Limitation:

CO emissions shall not exceed 1.85 lbs/hr and 8.1 tons/yr CO.

Applicable Compliance Method:

Hourly compliance shall be based on a one time calculation by using emission factors from AP-42, Section 1.4 (1998) for natural gas combustion and the maximum capacity of the gas burners.

$E(CO) = 0.046 \text{ MM scf/hr} \times 40 \text{ lbs CO}/10E6 \text{ scf (AP-42)} = 1.85 \text{ lbs/hr.}$

Annual emissions are determined by multiplying the hourly emissions by 8760 hrs/year and dividing by 2000 lbs/ton.

Emission Limitation:

VOC emissions shall not exceed 0.25 lb/hr and 1.1 tons/yr VOC.

Applicable Compliance Method:

Hourly compliance shall be based on a one time calculation by using emission factors from AP-42, Section 1.4 (1998) for natural gas combustion and the maximum capacity of the gas burners.

$$E(\text{VOC}) = 0.046 \text{ MM scf/hr} \times 5.5 \text{ lbs VOC/10E6 scf (AP-42)} = 0.25 \text{ lb/hr.}$$

Annual emissions are determined by multiplying the hourly emissions by 8760 hrs/year and dividing by 2000 lbs/ton.

Emission Limitation:

Visible PE from the exhaust stack or egress points serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with OAC Rule 3745-17-03(B)(3) using the methods and procedures specified in U.S.EPA Reference Method 9.

**F. Miscellaneous Requirements**

1. None

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Facility ID: 0278030797 Emissions Unit ID: R001 Issuance type: Final State Permit To Operate

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**Part II - Special Terms and Conditions**

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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>
Paint Area	OAC rule 3745-31-05(A)(3) (PTI No. 02-21042)	Volatile Organic compound (VOC) emissions shall not exceed 69.0 pounds per day and 12.6 tons per year of VOC
	OAC rule 3745-21-09(U)(2)(e)(iii)	The permittee shall not employ more than 10 gallons of coatings per day in this emissions unit.

2. **Additional Terms and Conditions**
  - (a) None

**B. Operational Restrictions**

1. None

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

1. The permittee shall collect and record the following information each day for the coating line:
  - a. the name and identification number of each coating, pre-clean and cleanup material employed;
  - b. the VOC content of each coating, pre-clean, and cleanup material (excluding water and exempt solvents), as applied;
  - c. the volume, in gallons, of each coating, pre-clean, and cleanup material employed;
  - d. the total volume, in gallons, of all of the coatings employed; and
  - e. the total VOC emissions from all coating, pre-clean, and cleanup material employed, in pounds, the sum of b. times c.
2. The permit to install for this emissions unit (R001) 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 emissions unit 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 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., "X" hours per day and "Y" 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):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

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: methyl propyl ketone

TLV (mg/m3): 704

Maximum Hourly Emission Rate (lbs/hr): 1.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 288.0

MAGLC (ug/m3): 16,762

Toxic: n-butyl acetate

TLV (mg/m3): 711

Maximum Hourly Emission Rate (lbs/hr): 1.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 288.1

MAGLC (ug/m3): 1692

Toxic: solvesso

TLV (mg/m3): 100

Maximum Hourly Emission Rate (lbs/hr): 1.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 288.1

MAGLC (ug/m3): 13,619

The permittee, has demonstrated that emissions of hexylene glycol, from emissions unit) P012, 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).

3. 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.

4. 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.
5. 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 (the Ohio EPA Northeast District Office) in writing of any daily record showing that the coating line emitted more than the allowable daily emission rate. The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA Northeast District Office) within 45 days after the exceedance occurs.
2. The permittee shall notify the Director (the Ohio EPA Northeast District Office ) in writing of any daily record showing that the coating line employs more than the applicable maximum daily coating usage limit. The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA Northeast District Office ) within 45 days after the exceedance occurs.
3. The permittee shall submit annual reports which specify the total VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by April 15 of each year.
4. The permittee shall submit annual reports to the Ohio EPA Northeast District Office, 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 emission limitation in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):
 

Emission Limitation:

VOC emissions shall not exceed 69.0 pounds per day.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in section C.1.e.

Emission Limitation:

VOC emissions shall not exceed 12.6 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the summation of the daily VOC emissions from the record keeping requirement specified in section C.1.e, divided by 2000 lbs/ton.

Emission Limitation:

This emissions unit shall not employ more than 10 gallons of coatings per day.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in section C.1.d.

**F. Miscellaneous Requirements**

1. None