

Facility ID: 1667060140 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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\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 1667060140 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>
P001 - Mixer 12, 30 HP High Speed Mixer	OAC rule 3745-31-05(A)(3)	<p>Toluene emissions shall not exceed 5.25 lbs/day, and 0.96 ton per year.</p> <p>Cyclo hexanone emissions shall not exceed 2.58 lbs/day, and 0.47 ton per year.</p> <p>Organic compound (OC) emissions shall not exceed 7.83 lbs/day, and 1.43 tons per year.</p> <p>The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.</p> <p>The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.</p>

	OAC rule 3745-31-05(C)	See B.4 below.
	OAC rule 3745-17-07(A)	See A.2.a and b below.
	OAC rule 3745-17-11(B)	See A.2.c below.
	OAC rule 3745-17-08(A)	See A.2.c below..
	OAC rule 3745-17-07(B)	See A.2.c below.

**2. Additional Terms and Conditions**

(a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:

- i. 99.0 tons of volatile organic compounds (VOC);
- ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
- iii. 9.9 tons of any individual HAP.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s)	VOC Limit	Total HAPs Limit	Individual HAP Limit
1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons
1-5	45.0 tons	11.25 tons	4.5 tons
1-6	54.0 tons	13.50 tons	5.4 tons
1-7	63.0 tons	15.75 tons	6.3 tons
1-8	72.0 tons	18.00 tons	7.2 tons
1-9	81.0 tons	20.25 tons	8.1 tons
1-10	90.0 tons	22.50 tons	9.0 tons
1-11	99.0 tons	24.75 tons	9.9 tons
1-12	99.0 tons	24.90 tons	9.9 tons

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

The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]

All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

**B. Operational Restrictions**

1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:

a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 566,770 pounds, based upon a rolling, 12-month summation of the monthly production rates.

2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Maximum Allowable Month(s) Cumulative Production Limit (Pounds)
1 111,350
1-2 167,025
1-3 222,700
1-4 278,375
1-5 334,050
1-6 389,725
1-7 445,400
1-8 501,075
1-9 556,770
1-10 556,770
1-11 556,770
1-12 556,770

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.

4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:
  - a. the coatings/adhesives production rate, in pounds;
  - b. the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight);
  - c. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);
  - d. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
  - e. the number of the days the emissions unit was in operation;
  - f. the average daily OC emissions, in pounds/day (average) [calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];
  - g. the average daily cyclohexanone emissions, in pounds/day (average) [calculated by dividing the cyclohexanone emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - h. the average daily toluene emissions, in pounds/day (average) [calculated by dividing the toluene emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - i. the rolling, 12-month coatings/adhesives production rate, in pounds.

\* The evaporation rates (loss factors) for toluene and cyclohexanone are estimated at 67% and 34%, by weight, respectively.

2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
  - a. the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);
  - b. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
  - c. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - d. during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - e. beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - f. For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729

Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
 MAGLC (ug/m3): 21,063

Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389

Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438

Pollutant: VM & P Naphtha  
 TLV (mg/m3): 1,398.8  
 Maximum Hourly Emission Rate (lbs/hr): 0.62  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
 MAGLC (ug/m3): 49,956

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
  - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
  - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
  - c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
  - d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 556,770 pounds;
  - e. all exceedances of the average daily OC, cyclohexanone, and toluene emission limitations of 7.83, 5.25 and 2.58 pounds, respectively.
2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

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

7.83 pounds per day OC  
 1.43 tons per year OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.

Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

Toluene emissions shall not exceed 5.25 lbs/day, and 0.96 ton per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable toluene emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly toluene emission rates for the calendar year.

Also, as long as compliance with the daily toluene emission limitation is maintained, compliance with the annual toluene emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

Cyclohexanone emissions shall not exceed 2.58 lbs/day, and 0.47 tons per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable cyclohexanone emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly cyclohexanone emission rates for the calendar year.

Also, as long as compliance with the daily cyclohexanone emission limitation is maintained, compliance with the annual cyclohexanone emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.

Emissions Limitation: No visible PE from the building

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.

Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)

9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

Operational Restriction:

556,770 pounds of coatings/adhesives/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**F. Miscellaneous Requirements**

- 1. None

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

**Facility ID: 1667060140 Emissions Unit ID: P002 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>
P002 - Mill 32, Sand Mill, 8 gallon chamber	OAC rule 3745-31-05(A)(3)	Toluene emissions shall not exceed 5.25 lbs/day, and 0.96 ton per year.
		Cyclo hexanone emissions shall not exceed 2.58 lbs/day, and 0.47 ton per year.
		Organic compound (OC) emissions shall not exceed 7.83 lbs/day, and 1.43 tons per year.
		The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.
		The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.
		See B.4 below.
	OAC rule 3745-31-05(C)	See A.2.a and b below.
	OAC rule 3745-17-07(A)	See A.2.c below.
	OAC rule 3745-17-11(B)	See A.2.c below..
	OAC rule 3745-17-08(A)	See A.2.c below.
	OAC rule 3745-17-07(B)	See A.2.c below.

**2. Additional Terms and Conditions**

- (a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:
  - i. 99.0 tons of volatile organic compounds (VOC);
  - ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
  - iii. 9.9 tons of any individual HAP.  
To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s)	VOC Limit	Total HAPs Limit	Individual HAP Limit
1	9.0 tons	2.25 tons	0.9 tons

- 1-2 18.0 tons 4.50 tons 1.8 tons
- 1-3 27.0 tons 6.75 tons 2.7 tons
- 1-4 36.0 tons 9.00 tons 3.6 tons
- 1-5 45.0 tons 11.25 tons 4.5 tons
- 1-6 54.0 tons 13.50 tons 5.4 tons
- 1-7 63.0 tons 15.75 tons 6.3 tons
- 1-8 72.0 tons 18.00 tons 7.2 tons
- 1-9 81.0 tons 20.25 tons 8.1 tons
- 1-10 90.0 tons 22.50 tons 9.0 tons
- 1-11 99.0 tons 24.75 tons 9.9 tons
- 1-12 99.0 tons 24.90 tons 9.9 tons

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).  
 The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]  
 All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

**B. Operational Restrictions**

1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:
  - a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 566,770 pounds, based upon a rolling, 12-month summation of the monthly production rates.
2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Month(s)	Maximum Allowable Cumulative Production Limit (Pounds)
1	111,350
1-2	167,025
1-3	222,700
1-4	278,375
1-5	334,050
1-6	389,725
1-7	445,400
1-8	501,075
1-9	556,770
1-10	556,770
1-11	556,770
1-12	556,770

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.
4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:
  - a. the coatings/adhesives production rate, in pounds;
  - b. the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight);
  - c. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);
  - d. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
  - e. the number of the days the emissions unit was in operation;
  - f. the average daily OC emissions, in pounds/day (average) [calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];

- g. the average daily cyclohexanone emissions, in pounds/day (average) [calculated by dividing the cyclohexanone emissions, from section C.1.c. by the number of days of operation, from section C.1.e];
  - h. the average daily toluene emissions, in pounds/day (average) [calculated by dividing the toluene emissions, from section C.1.c. by the number of days of operation, from section C.1.e];
  - i. the rolling, 12-month coatings/adhesives production rate, in pounds.
    - \* The evaporation rates (loss factors) for toluene and cyclohexanone are estimated at 67% and 34%, by weight, respectively.
2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
- a. the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);
  - b. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
  - c. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - d. during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - e. beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - f. For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729

Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
 MAGLC (ug/m3): 21,063

Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389

Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438

Pollutant: VM & P Naphtha  
 TLV (mg/m3): 1,398.8  
 Maximum Hourly Emission Rate (lbs/hr): 0.62  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
 MAGLC (ug/m3): 49,956

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

- 1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
  - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
  - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
  - c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
  - d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 556,770 pounds;
  - e. all exceedances of the average daily OC, cyclohexanone, and toluene emission limitations of 7.83, 5.25 and 2.58 pounds, respectively.
- 2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

- 1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitations:

7.83 pounds per day OC  
1.43 tons per year OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.

Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

Toluene emissions shall not exceed 5.25 lbs/day, and 0.96 ton per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable toluene emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly toluene emission rates for the calendar year.

Also, as long as compliance with the daily toluene emission limitation is maintained, compliance with the annual toluene emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

Cyclohexanone emissions shall not exceed 2.58 lbs/day, and 0.47 tons per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable cyclohexanone emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly cyclohexanone emission rates for the calendar year.

Also, as long as compliance with the daily cyclohexanone emission limitation is maintained, compliance with the annual cyclohexanone emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.

Emissions Limitation: No visible PE from the building

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.

Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)

9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

Operational Restriction:

556,770 pounds of coatings/adhesives/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**F. Miscellaneous Requirements**

1. None

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

**Facility ID: 1667060140 Emissions Unit ID: P003 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>
P003 - Mixer 2, 15 HP High Speed Mixer	OAC rule 3745-31-05(A)(3)	Methyl Ethyl Ketone emissions shall not exceed 6.93 lbs/day, and 1.26 ton per year.
		Organic compound (OC) emissions shall not exceed 6.93 lbs/day, and 1.26 tons per year.
		The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.
		The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.
		See B.4 below.
	OAC rule 3745-31-05(C)	See A.2.a and b below.
	OAC rule 3745-17-07(A)	See A.2.c below.
	OAC rule 3745-17-11(B)	See A.2.c below..
	OAC rule 3745-17-08(A)	See A.2.c below.
	OAC rule 3745-17-07(B)	See A.2.c below.

**2. Additional Terms and Conditions**

- (a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:

- i. 99.0 tons of volatile organic compounds (VOC);
- ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
- iii. 9.9 tons of any individual HAP.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s) VOC Limit Total HAPs Limit Individual HAP Limit

1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons
1-5	45.0 tons	11.25 tons	4.5 tons
1-6	54.0 tons	13.50 tons	5.4 tons
1-7	63.0 tons	15.75 tons	6.3 tons
1-8	72.0 tons	18.00 tons	7.2 tons
1-9	81.0 tons	20.25 tons	8.1 tons
1-10	90.0 tons	22.50 tons	9.0 tons
1-11	99.0 tons	24.75 tons	9.9 tons
1-12	99.0 tons	24.90 tons	9.9 tons

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

The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]

All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

**B. Operational Restrictions**

- 1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:

- a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 309,920 pounds, based upon a rolling, 12-month summation of the monthly production rates.
2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Maximum Allowable  
Month(s) Cumulative Production  
Limit (Pounds)

1 57,960  
1-2 115,920  
1-3 143,920  
1-4 171,920  
1-5 199,920  
1-6 227,920  
1-7 255,920  
1-8 283,920  
1-9 309,920  
1-10 309,920  
1-11 309,920  
1-12 309,920

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.
4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:
- the coatings/adhesives production rate, in pounds;
  - the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight);
  - the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);
  - the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
  - the number of the days the emissions unit was in operation;
  - the average daily OC emissions, in pounds/day (average) [calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];
  - the average daily MEK emissions, in pounds/day (average) [calculated by dividing the MEK emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - the rolling, 12-month coatings/adhesives production rate, in pounds.

\* The evaporation rate (loss factor) for MEK is estimated at 100%, by weight, respectively.

2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
- the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);
  - the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
  - the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.

3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729

Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
 MAGLC (ug/m3): 21,063

Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389

Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438

Pollutant: VM & P Naphtha  
 TLV (mg/m3): 1,398.8  
 Maximum Hourly Emission Rate (lbs/hr): 0.62  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
 MAGLC (ug/m3): 49,956

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
- a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
  - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the

monthly cumulative coatings/adhesives production rates restrictions (see section B.2);

- c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
  - d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 309,920 pounds;
  - e. all exceedances of the average daily OC, and MEK emission limitations of 6.93 and 6.93 pounds, respectively.
2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

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

Emission Limitations:

6.93 pounds per day OC  
1.26 tons per year OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.

Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

MEK emissions shall not exceed 6.93 lbs/day, and 1.26 ton per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable MEK emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly MEK emission rates for the calendar year.

Also, as long as compliance with the daily MEK emission limitation is maintained, compliance with the annual MEK emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.

Emissions Limitation: No visible PE from the building

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.

Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)  
9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

Operational Restriction:

309,920 pounds of coatings/adhesives/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**F. Miscellaneous Requirements**

- 1. None

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

Facility ID: 1667060140 Emissions Unit ID: P004 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>
P004 - Sand Mill 31, Sand Mill, 3 gallon chamber	OAC rule 3745-31-05(A)(3)	Methyl Ethyl Ketone emissions shall not exceed 6.93 lbs/day, and 1.26 ton per year.
		Organic compound (OC) emissions shall not exceed 6.93 lbs/day, and 1.26 tons per year.
		The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.
		The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.
		See B.4 below.
	OAC rule 3745-31-05(C)	See A.2.a and b below.
	OAC rule 3745-17-07(A)	See A.2.c below.
	OAC rule 3745-17-11(B)	See A.2.c below..
	OAC rule 3745-17-08(A)	See A.2.c below.
	OAC rule 3745-17-07(B)	See A.2.c below.

**2. Additional Terms and Conditions**

- (a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:
  - i. 99.0 tons of volatile organic compounds (VOC);
  - ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
  - iii. 9.9 tons of any individual HAP.
    - To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s) VOC Limit Total HAPs Limit Individual HAP Limit

1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons
1-5	45.0 tons	11.25 tons	4.5 tons
1-6	54.0 tons	13.50 tons	5.4 tons
1-7	63.0 tons	15.75 tons	6.3 tons
1-8	72.0 tons	18.00 tons	7.2 tons
1-9	81.0 tons	20.25 tons	8.1 tons
1-10	90.0 tons	22.50 tons	9.0 tons
1-11	99.0 tons	24.75 tons	9.9 tons
1-12	99.0 tons	24.90 tons	9.9 tons

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

The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]

All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

**B. Operational Restrictions**

1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:
  - a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 172,900 pounds, based upon a rolling, 12-month summation of the monthly production rates.
2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Maximum Allowable  
Month(s) Cumulative Production  
Limit (Pounds)

1	23,450
1-2	46,900
1-3	64,900
1-4	82,900
1-5	100,900
1-6	118,900
1-7	136,900
1-8	154,900
1-9	172,900
1-10	172,900
1-11	172,900
1-12	172,900

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.
4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:
  - a. the coatings/adhesives production rate, in pounds;
  - b. the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight);
  - c. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);
  - d. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
  - e. the number of the days the emissions unit was in operation;

- f. the average daily OC emissions, in pounds/day (average) [calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];
  - g. the average daily MEK emissions, in pounds/day (average) [calculated by dividing the MEK emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - h. the rolling, 12-month coatings/adhesives production rate, in pounds.
    - \* The evaporation rates (loss factor) for MEK is estimated at 100%, by weight, respectively.
2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
- a. the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);
  - b. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
  - c. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - d. during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - e. beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - f. For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729

Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
 MAGLC (ug/m3): 21,063

Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389

Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438

Pollutant: VM & P Naphtha  
 TLV (mg/m3): 1,398.8  
 Maximum Hourly Emission Rate (lbs/hr): 0.62  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
 MAGLC (ug/m3): 49,956

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
- 4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
- D. **Reporting Requirements**

- 1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
  - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
  - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
  - c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
  - d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 172,900 pounds;
  - e. all exceedances of the average daily OC and MEK emission limitations of 6.93 and 6.93 pounds, respectively.
- 2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

E. **Testing Requirements**

- 1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitations:

6.93 pounds per day OC  
1.26 tons per year OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.

Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

MEK emissions shall not exceed 6.93 lbs/day, and 1.26 ton per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable MEK emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly MEK emission rates for the calendar year.

Also, as long as compliance with the daily MEK emission limitation is maintained, compliance with the annual

MEK emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.

Emissions Limitation: No visible PE from the building

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.

Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)  
 9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

Operational Restriction:

172,900 pounds of coatings/adhesives/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**F. Miscellaneous Requirements**

- 1. None

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

Facility ID: 1667060140 Emissions Unit ID: P005 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>
P005 - Mixer 11, 30 HP High Speed Mixer	OAC rule 3745-31-05(A)(3)	Methyl Ethyl Ketone emissions shall not exceed 18.87 lbs/day, and 3.44 tons per year.
		Organic compound (OC) emissions shall not exceed

18.9 lbs/day, and 3.45 tons per year.

The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.

The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.

See B.4 below.

OAC rule 3745-31-05(C)

See A.2.a and b below.

OAC rule 3745-17-07(A)

See A.2.c below.

OAC rule 3745-17-11(B)

See A.2.c below..

OAC rule 3745-17-08(A)

See A.2.c below.

OAC rule 3745-17-07(B)

See A.2.c below.

**2. Additional Terms and Conditions**

(a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:

- i. 99.0 tons of volatile organic compounds (VOC);
- ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
- iii. 9.9 tons of any individual HAP.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s) VOC Limit Total HAPs Limit Individual HAP Limit

1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons
1-5	45.0 tons	11.25 tons	4.5 tons
1-6	54.0 tons	13.50 tons	5.4 tons
1-7	63.0 tons	15.75 tons	6.3 tons
1-8	72.0 tons	18.00 tons	7.2 tons
1-9	81.0 tons	20.25 tons	8.1 tons
1-10	90.0 tons	22.50 tons	9.0 tons
1-11	99.0 tons	24.75 tons	9.9 tons
1-12	99.0 tons	24.90 tons	9.9 tons

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

The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]

All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

**B. Operational Restrictions**

1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:

a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 197,600 pounds, based upon a rolling, 12-month summation of the monthly production rates.

2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Maximum Allowable  
Month(s) Cumulative Production  
Limit (Pounds)

1	29,640
1-2	59,280
1-3	79,040
1-4	98,800
1-5	118,560
1-6	138,320
1-7	158,080
1-8	177,840
1-9	197,600
1-10	197,600

1-11 197,600  
1-12 197,600

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.
4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:
  - a. the coatings/adhesives production rate, in pounds;
  - b. the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight);
  - c. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);
  - d. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
  - e. the number of the days the emissions unit was in operation;
  - f. the average daily OC emissions, in pounds/day (average) [calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];
  - g. the average daily MEK emissions, in pounds/day (average) [calculated by dividing the MEK emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - h. the rolling, 12-month coatings/adhesives production rate, in pounds.

\* The evaporation rates (loss factor) for MEK is estimated at 100%, by weight, respectively.

2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
  - a. the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);
  - b. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
  - c. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - d. during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - e. beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - f. For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
TLV (mg/m3): 188.4  
Maximum Hourly Emission Rate (lbs/hr): 1.95  
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
MAGLC (ug/m3): 6,729

Pollutant: Methyl Ethyl Ketone  
TLV (mg/m3): 589.8  
Maximum Hourly Emission Rate (lbs/hr): 8.97  
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
MAGLC (ug/m3): 21,063

Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389

Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438

Pollutant: VM & P Naphtha  
 TLV (mg/m3): 1,398.8  
 Maximum Hourly Emission Rate (lbs/hr): 0.62  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
 MAGLC (ug/m3): 49,956

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
  - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
  - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
  - c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
  - d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 197,600 pounds;
  - e. all exceedances of the average daily OC, and MEK emission limitations of 18.87, and 18.9 pounds, respectively.
2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:  
 Emission Limitations:  
 18.87 pounds per day OC  
 3.44 tons per year OC

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.

Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

MEK emissions shall not exceed 18.87 lbs/day, and 3.44 ton per year.

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the daily allowable MEK emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly MEK emission rates for the calendar year.

Also, as long as compliance with the daily MEK emission limitation is maintained, compliance with the annual MEK emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

**Applicable Compliance Method:**

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.

Emissions Limitation: No visible PE from the building

**Applicable Compliance Method:**

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.

Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

**Applicable Compliance Method:**

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)

9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

Operational Restriction:

197,600 pounds of coatings/adhesives/yr

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**F. Miscellaneous Requirements**

1. None

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

Facility ID: 1667060140 Emissions Unit ID: P006 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>
P006 - Mixer 6, 30 HP High Speed Mixer with 1000 gallon tank	OAC rule 3745-31-05(A)(3)	Toluene emissions shall not exceed 5.25 lbs/day, and 0.96 ton per year.
		Methyl Ethyl Ketone emissions shall not exceed 24.8 lbs/day, and 4.53 ton per year.
		Organic compound (OC) emissions shall not exceed 30.00 lbs/day, and 5.48 tons per year.
		The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.
		The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.
		See B.4 below.
	OAC rule 3745-31-05(C)	See A.2.a and b below.
	OAC rule 3745-17-07(A)	See A.2.c below.
	OAC rule 3745-17-11(B)	See A.2.c below..
	OAC rule 3745-17-08(A)	See A.2.c below.
	OAC rule 3745-17-07(B)	See A.2.c below.

**2. Additional Terms and Conditions**

- (a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:
  - i. 99.0 tons of volatile organic compounds (VOC);
  - ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
  - iii. 9.9 tons of any individual HAP.  
To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s)	VOC Limit	Total HAPs Limit	Individual HAP Limit
1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons
1-5	45.0 tons	11.25 tons	4.5 tons
1-6	54.0 tons	13.50 tons	5.4 tons
1-7	63.0 tons	15.75 tons	6.3 tons
1-8	72.0 tons	18.00 tons	7.2 tons
1-9	81.0 tons	20.25 tons	8.1 tons
1-10	90.0 tons	22.50 tons	9.0 tons
1-11	99.0 tons	24.75 tons	9.9 tons
1-12	99.0 tons	24.90 tons	9.9 tons

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).  
The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the

emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]  
All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

**B. Operational Restrictions**

1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:

a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 1,555,535 pounds, based upon a rolling, 12-month summation of the monthly production rates.

2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Month(s)	Maximum Allowable Cumulative Production Limit (Pounds)
1	233,325
1-2	466,650
1-3	622,205
1-4	777,760
1-5	933,315
1-6	1,088,870
1-7	1,244,425
1-8	1,399,982
1-9	1,555,535
1-10	1,555,535
1-11	1,555,535
1-12	1,555,535

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.

4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:

- a. the coatings/adhesives production rate, in pounds;
- b. the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight);
- c. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company -supplied loss factor\*);
- d. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
- e. the number of the days the emissions unit was in operation;
- f. the average daily OC emissions, in pounds/day (average) [calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];
- g. the average daily MEK emissions, in pounds/day (average) [calculated by dividing the MEK emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
- h. the average daily toluene emissions, in pounds/day (average) [calculated by dividing the toluene emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
- i. the rolling, 12-month coatings/adhesives production rate, in pounds.

\* The evaporation rates (loss factors) for toluene and MEK are estimated at 17% and 83%, by weight, respectively.

2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:

- a. the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);
  - b. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
  - c. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - d. during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - e. beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - f. For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):
- Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729
- Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
 MAGLC (ug/m3): 21,063
- Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389
- Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438
- Pollutant: VM & P Naphtha  
 TLV (mg/m3): 1,398.8  
 Maximum Hourly Emission Rate (lbs/hr): 0.62  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
 MAGLC (ug/m3): 49,956
- Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
- D. Reporting Requirements**
1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
    - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
    - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
    - c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
    - d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 1,555,535 pounds;
    - e. all exceedances of the average daily OC, toluene, and MEK emission limitations of 30.00, 5.25 and 24.8 pounds, respectively.
  2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.
- E. Testing Requirements**
1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitations:  
  
30.00 pounds per day OC  
5.48 tons per year OC  
  
Applicable Compliance Method:  
  
The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.  
  
If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.  
  
The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.  
  
Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).  
Emission Limitation:  
  
Toluene emissions shall not exceed 5.25 lbs/day, and 0.96 ton per year.  
  
Applicable Compliance Method:  
  
The permittee shall demonstrate compliance with the daily allowable toluene emission limitation based on the record keeping requirements established in section C.1 of this permit.  
  
If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.  
  
The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly toluene emission rates for the calendar year.  
  
Also, as long as compliance with the daily toluene emission limitation is maintained, compliance with the annual toluene emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).  
Emission Limitation:  
  
Methyl Ethyl Ketone emissions shall not exceed 24.8 lbs/day, and 4.53 tons per year.  
  
Applicable Compliance Method:  
  
The permittee shall demonstrate compliance with the daily allowable MEK emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly MEK emission rates for the calendar year.

Also, as long as compliance with the daily MEK emission limitation is maintained, compliance with the annual MEK emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.

Emissions Limitation: No visible PE from the building

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.

Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)

9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

Operational Restriction:

1,555,535 pounds of coatings/adhesives/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**F. Miscellaneous Requirements**

1. None

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

Facility ID: 1667060140 Emissions Unit ID: P007 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>
P007 - Mixer 7, 30 HP High Speed Mixer with 1000 gallon tank	OAC rule 3745-31-05(A)(3)	Toluene emissions shall not exceed 5.25 lbs/day, and 0.96 ton per year.  Methyl Ethyl Ketone emissions shall not exceed 24.8 lbs/day, and 4.53 ton per year.  Organic compound (OC) emissions shall not exceed 30.00 lbs/day, and 5.48 tons per year.  The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.  The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.
	OAC rule 3745-31-05(C)	See B.4 below.
	OAC rule 3745-17-07(A)	See A.2.a and b below.
	OAC rule 3745-17-11(B)	See A.2.c below.
	OAC rule 3745-17-08(A)	See A.2.c below.
	OAC rule 3745-17-07(B)	See A.2.c below.

**2. Additional Terms and Conditions**

(a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:

- i. 99.0 tons of volatile organic compounds (VOC);
- ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
- iii. 9.9 tons of any individual HAP.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s)	VOC Limit	Total HAPs Limit	Individual HAP Limit
1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons
1-5	45.0 tons	11.25 tons	4.5 tons
1-6	54.0 tons	13.50 tons	5.4 tons
1-7	63.0 tons	15.75 tons	6.3 tons
1-8	72.0 tons	18.00 tons	7.2 tons
1-9	81.0 tons	20.25 tons	8.1 tons
1-10	90.0 tons	22.50 tons	9.0 tons
1-11	99.0 tons	24.75 tons	9.9 tons
1-12	99.0 tons	24.90 tons	9.9 tons

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

The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]

All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

**B. Operational Restrictions**

1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:

a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 1,555,535 pounds, based upon a rolling, 12-month summation of the monthly production rates.

2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Maximum Allowable Month(s) Cumulative Production Limit (Pounds)
---

- 1 233,325  
 1-2 466,650  
 1-3 622,205  
 1-4 777,760  
 1-5 933,315  
 1-6 1,088,870  
 1-7 1,244,425  
 1-8 1,399,982  
 1-9 1,555,535  
 1-10 1,555,535  
 1-11 1,555,535  
 1-12 1,555,535

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.
4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:
  - a. the coatings/adhesives production rate, in pounds;
  - b. the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight);
  - c. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);
  - d. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
  - e. the number of the days the emissions unit was in operation;
  - f. the average daily OC emissions, in pounds/day (average) [calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];
  - g. the average daily MEK emissions, in pounds/day (average) [calculated by dividing the MEK emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - h. the average daily toluene emissions, in pounds/day (average) [calculated by dividing the toluene emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - i. the rolling, 12-month coatings/adhesives production rate, in pounds.
 

\* The evaporation rates (loss factors) for toluene and MEK are estimated at 17% and 83%, by weight, respectively.
2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
  - a. the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);
  - b. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
  - c. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - d. during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - e. beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - f. For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-

Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729

Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
 MAGLC (ug/m3): 21,063

Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389

Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438

Pollutant: VM & P Naphtha  
 TLV (mg/m3): 1,398.8  
 Maximum Hourly Emission Rate (lbs/hr): 0.62  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
 MAGLC (ug/m3): 49,956

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
  - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
  - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
  - c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
  - d. beginning the first month following the first 12 calendar months of operation following the issuance of this

permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 1,555,535 pounds;

e. all exceedances of the average daily OC, toluene, and MEK emission limitations of 30.00, 5.25 and 24.8 pounds, respectively.

2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

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

Emission Limitations:

30.00 pounds per day OC

5.48 tons per year OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.

Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

Toluene emissions shall not exceed 5.25 lbs/day, and 0.96 ton per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable toluene emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly toluene emission rates for the calendar year.

Also, as long as compliance with the daily toluene emission limitation is maintained, compliance with the annual toluene emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

Methyl Ethyl Ketone emissions shall not exceed 24.8 lbs/day, and 4.53 tons per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable MEK emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly MEK emission rates for the calendar year.

Also, as long as compliance with the daily MEK emission limitation is maintained, compliance with the annual MEK emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.

Emissions Limitation: No visible PE from the building

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.

Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in

accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)  
 9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

Operational Restriction:

1,555,535 pounds of coatings/adhesives/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**F. Miscellaneous Requirements**

- 1. None

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

**Facility ID: 1667060140 Emissions Unit ID: P008 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>
P008 - Mixer 20, 30 HP High Speed Mixer	OAC rule 3745-31-05(A)(3)	Trimethyl benzene emissions shall not exceed 6.64 lbs/day, and 1.21 tons per year.  Organic compound (OC) emissions shall not exceed 15.8 lbs/day, and 2.89 tons per year.  The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.  The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.
	OAC rule 3745-31-05(C)	See B.4 below.
	OAC rule 3745-17-07(A)	See A.2.a and b below.
	OAC rule 3745-17-11(B)	See A.2.c below.
	OAC rule 3745-17-08(A)	See A.2.c below..
	OAC rule 3745-17-07(B)	See A.2.c below.

- 2. **Additional Terms and Conditions**

- (a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:

- i. 99.0 tons of volatile organic compounds (VOC);
- ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
- iii. 9.9 tons of any individual HAP.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s) VOC Limit Total HAPs Limit Individual HAP Limit

1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons
1-5	45.0 tons	11.25 tons	4.5 tons
1-6	54.0 tons	13.50 tons	5.4 tons
1-7	63.0 tons	15.75 tons	6.3 tons
1-8	72.0 tons	18.00 tons	7.2 tons
1-9	81.0 tons	20.25 tons	8.1 tons
1-10	90.0 tons	22.50 tons	9.0 tons
1-11	99.0 tons	24.75 tons	9.9 tons
1-12	99.0 tons	24.90 tons	9.9 tons

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

The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]

All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

**B. Operational Restrictions**

- 1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:
  - a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 503,360 pounds, based upon a rolling, 12-month summation of the monthly production rates.
- 2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Maximum Allowable  
Month(s) Cumulative Production  
Limit (Pounds)

1	76,680
1-2	153,360
1-3	203,360
1-4	253,360
1-5	303,360
1-6	403,360
1-7	453,360
1-8	503,360
1-9	503,360
1-10	503,360
1-11	503,360
1-12	503,360

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

- 3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.
- 4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

- 1. The permittee shall calculate and record the following information each month for this emissions unit:
  - a. the coatings/adhesives production rate, in pounds;

- b. the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight);
- c. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);
- d. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
- e. the number of the days the emissions unit was in operation;
- f. the average daily OC emissions, in pounds/day (average) [calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];
- g. the average daily trimethyl benzene emissions, in pounds/day (average) [calculated by dividing the trimethyl benzene emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
- h. the rolling, 12-month coatings/adhesives production rate, in pounds.
- \* The evaporation rate (loss factor) for trimethyl benzene is estimated at 42% by weight.
2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
- a. the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);
- b. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
- c. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
- d. during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
- e. beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
- f. For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729

Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
 MAGLC (ug/m3): 21,063

Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389

Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438

Pollutant: VM & P Naphtha  
 TLV (mg/m3): 1,398.8  
 Maximum Hourly Emission Rate (lbs/hr): 0.62  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
 MAGLC (ug/m3): 49,956

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied.

Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
- D. Reporting Requirements**
1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
    - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
    - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
    - c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
    - d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 503,360 pounds;
    - e. all exceedances of the average daily OC, and Trimethyl benzene emission limitations of 15.8, and 6.64 pounds, respectively.
  2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

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

Emission Limitations:

30.00 pounds per day OC  
5.48 tons per year OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.

Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

Trimethyl benzene emissions shall not exceed 6.64 lbs/day, and 1.21 ton per year.

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the daily allowable Trimethyl benzene emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly toluene emission rates for the calendar year.

Also, as long as compliance with the daily Trimethyl benzene emission limitation is maintained, compliance with the annual Trimethyl benzene emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

**Applicable Compliance Method:**

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.

Emissions Limitation: No visible PE from the building

**Applicable Compliance Method:**

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.

Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

**Applicable Compliance Method:**

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)

9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

Operational Restriction:

503,360 pounds of coatings/adhesives/yr

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**F. Miscellaneous Requirements**

1. None

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

**Facility ID: 1667060140 Emissions Unit ID: P009 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>
P009 - Mixer 14, 30 HP High Speed Mixer	OAC rule 3745-31-05(A)(3)	Toluene emissions shall not exceed 5.25 lbs/day, and 0.96 ton per year.  Organic compound (OC) emissions shall not exceed 5.25 lbs/day, and 0.96 tons per year.  The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.  The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.
	OAC rule 3745-31-05(C)	See B.4 below.
	OAC rule 3745-17-07(A)	See A.2.a and b below.
	OAC rule 3745-17-11(B)	See A.2.c below..
	OAC rule 3745-17-08(A)	See A.2.c below.
	OAC rule 3745-17-07(B)	See A.2.c below.

**2. Additional Terms and Conditions**

- (a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:

- i. 99.0 tons of volatile organic compounds (VOC);
- ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
- iii. 9.9 tons of any individual HAP.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s) VOC Limit Total HAPs Limit Individual HAP Limit

1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons
1-5	45.0 tons	11.25 tons	4.5 tons
1-6	54.0 tons	13.50 tons	5.4 tons
1-7	63.0 tons	15.75 tons	6.3 tons
1-8	72.0 tons	18.00 tons	7.2 tons
1-9	81.0 tons	20.25 tons	8.1 tons
1-10	90.0 tons	22.50 tons	9.0 tons
1-11	99.0 tons	24.75 tons	9.9 tons
1-12	99.0 tons	24.90 tons	9.9 tons

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

The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]

All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

**B. Operational Restrictions**

1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:

a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 1,111,625 pounds, based upon a rolling, 12-month summation of the monthly production rates.

2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Maximum Allowable  
Month(s) Cumulative Production  
Limit (Pounds)

1 222,025  
1-2 333,225  
1-3 444,425  
1-4 555,625  
1-5 666,825  
1-6 778,025  
1-7 889,225  
1-8 1,000,425  
1-9 1,111,625  
1-10 1,111,625  
1-11 1,111,625  
1-12 1,111,625

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.
4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:
  - a. the coatings/adhesives production rate, in pounds;
  - b. the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight);
  - c. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);
  - d. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
  - e. the number of the days the emissions unit was in operation;
  - f. the average daily OC emissions, in pounds/day (average) [calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];
  - g. the average daily toluene emissions, in pounds/day (average) [calculated by dividing the toluene emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - h. the rolling, 12-month coatings/adhesives production rate, in pounds.

\* The evaporation rates (loss factors) for toluene is estimated at 100%, by weight.
2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
  - a. the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);
  - b. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
  - c. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - d. during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - e. beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - f. For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-

Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729

Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
 MAGLC (ug/m3): 21,063

Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389

Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438

Pollutant: VM & P Naphtha  
 TLV (mg/m3): 1,398.8  
 Maximum Hourly Emission Rate (lbs/hr): 0.62  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
 MAGLC (ug/m3): 49,956

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
  - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
  - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
  - c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
  - d. beginning the first month following the first 12 calendar months of operation following the issuance of this

permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 1,111,625 pounds;

e. all exceedances of the average daily OC, and toluene emission limitations of 5.25 pounds.

2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

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

30.00 pounds per day OC  
5.48 tons per year OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.

Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

Toluene emissions shall not exceed 5.25 lbs/day, and 0.96 ton per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable toluene emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly toluene emission rates for the calendar year.

Also, as long as compliance with the daily toluene emission limitation is maintained, compliance with the annual toluene emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.  
Emissions Limitation: No visible PE from the building

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.  
Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)  
9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

Operational Restriction:

1,111,625 pounds of coatings/adhesives/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**F. Miscellaneous Requirements**

- 1. None

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

**Facility ID: 1667060140 Emissions Unit ID: P010 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>
P010 - Mixer 15, 30 HP High Speed Mixer	OAC rule 3745-31-05(A)(3)	Methyl Ethyl Ketone emissions shall not exceed 39.95 lbs/day, and 7.29 ton per year.
		Organic compound (OC) emissions shall not exceed 39.95 lbs/day, and 7.29 tons per year.
		The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.
		The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.
		See B.4 below.
	OAC rule 3745-31-05(C)	See A.2.a and b below.
	OAC rule 3745-17-07(A)	See A.2.c below.
	OAC rule 3745-17-11(B)	See A.2.c below..
	OAC rule 3745-17-08(A)	See A.2.c below.
	OAC rule 3745-17-07(B)	See A.2.c below.

**2. Additional Terms and Conditions**

- (a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:
  - i. 99.0 tons of volatile organic compounds (VOC);
  - ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
  - iii. 9.9 tons of any individual HAP.  
To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s)	VOC Limit	Total HAPs Limit	Individual HAP Limit
1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons

- 1-5 45.0 tons 11.25 tons 4.5 tons
- 1-6 54.0 tons 13.50 tons 5.4 tons
- 1-7 63.0 tons 15.75 tons 6.3 tons
- 1-8 72.0 tons 18.00 tons 7.2 tons
- 1-9 81.0 tons 20.25 tons 8.1 tons
- 1-10 90.0 tons 22.50 tons 9.0 tons
- 1-11 99.0 tons 24.75 tons 9.9 tons
- 1-12 99.0 tons 24.90 tons 9.9 tons

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

The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]

All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

**B. Operational Restrictions**

1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:
  - a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 1,220,000 pounds, based upon a rolling, 12-month summation of the monthly production rates.

2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Maximum Allowable  
Month(s) Cumulative Production  
Limit (Pounds)

- 1 183,000
- 1-2 366,000
- 1-3 488,000
- 1-4 610,000
- 1-5 732,000
- 1-6 854,000
- 1-7 976,000
- 1-8 1,098,000
- 1-9 1,220,000
- 1-10 1,220,000
- 1-11 1,220,000
- 1-12 1,220,000

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.
4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:
  - a. the coatings/adhesives production rate, in pounds;
  - b. the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight);
  - c. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);
  - d. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
  - e. the number of the days the emissions unit was in operation;
  - f. the average daily OC emissions, in pounds/day (average) [calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];
  - g. the average daily MEK emissions, in pounds/day (average) [calculated by dividing the MEK emissions, from section C.1.c, by the number of days of operation, from section C.1.e];

- h. the rolling, 12-month coatings/adhesives production rate, in pounds.
- \* The evaporation rates (loss factor) for MEK is estimated at 100%, by weight.
2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
- the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);
  - the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
  - the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):
- Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729
- Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
 MAGLC (ug/m3): 21,063
- Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389
- Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438
- Pollutant: VM & P Naphtha  
 TLV (mg/m3): 1,398.8  
 Maximum Hourly Emission Rate (lbs/hr): 0.62  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
 MAGLC (ug/m3): 49,956
- Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
- 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");
  - 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
  - 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be

required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
  - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
  - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
  - c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
  - d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 1,220,000 pounds;
  - e. all exceedances of the average daily OC, and MEK emission limitations of 39.95, and 39.95 pounds, respectively.
2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

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

Emission Limitations:

39.95 pounds per day OC  
7.29 tons per year OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.

Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

MEK emissions shall not exceed 39.95 lbs/day, and 7.29 ton per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable MEK emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly MEK emission rates for the calendar year.

Also, as long as compliance with the daily MEK emission limitation is maintained, compliance with the annual MEK emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.  
Emissions Limitation: No visible PE from the building

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.  
Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)  
9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.  
Operational Restriction:

1,220,000 pounds of coatings/adhesives/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**F. Miscellaneous Requirements**

- 1. None

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

Facility ID: 1667060140 Emissions Unit ID: P011 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>
P011 - Mill 40, Sand Mill with 16 gallon chamber	OAC rule 3745-31-05(A)(3)	Toluene emissions shall not exceed 5.25 lbs/day, and 0.96 ton per year.  Organic compound (OC) emissions shall not exceed 5.25 lbs/day, and 0.96 tons per year.  The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average,

and no visible PE from building ventilation.

The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.

See B.4 below.

OAC rule 3745-31-05(C)

See A.2.a and b below.

OAC rule 3745-17-07(A)

See A.2.c below.

OAC rule 3745-17-11(B)

See A.2.c below..

OAC rule 3745-17-08(A)

See A.2.c below.

OAC rule 3745-17-07(B)

See A.2.c below.

**2. Additional Terms and Conditions**

(a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:

- i. 99.0 tons of volatile organic compounds (VOC);
- ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
- iii. 9.9 tons of any individual HAP.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s) VOC Limit Total HAPs Limit Individual HAP Limit

1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons
1-5	45.0 tons	11.25 tons	4.5 tons
1-6	54.0 tons	13.50 tons	5.4 tons
1-7	63.0 tons	15.75 tons	6.3 tons
1-8	72.0 tons	18.00 tons	7.2 tons
1-9	81.0 tons	20.25 tons	8.1 tons
1-10	90.0 tons	22.50 tons	9.0 tons
1-11	99.0 tons	24.75 tons	9.9 tons
1-12	99.0 tons	24.90 tons	9.9 tons

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

The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]

All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

**B. Operational Restrictions**

1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:

a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 84,280 pounds, based upon a rolling, 12-month summation of the monthly production rates.

2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Maximum Allowable  
Month(s) Cumulative Production  
Limit (Pounds)

1	12,740
1-2	25,480
1-3	33,880
1-4	42,280
1-5	50,680
1-6	59,080
1-7	67,480
1-8	75,880
1-9	84,280
1-10	84,280
1-11	84,280
1-12	84,280

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual

production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.
4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:
  - a. the coatings/adhesives production rate, in pounds;
  - b. the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight);
  - c. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);
  - d. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
  - e. the number of the days the emissions unit was in operation;
  - f. the average daily OC emissions, in pounds/day (average) [calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];
  - g. the average daily toluene emissions, in pounds/day (average) [calculated by dividing the toluene emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - h. the rolling, 12-month coatings/adhesives production rate, in pounds.

\* The evaporation rates (loss factors) for toluene is estimated at 100%, by weight.

2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
  - a. the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);
  - b. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
  - c. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - d. during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - e. beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - f. For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729

Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
 MAGLC (ug/m3): 21,063

Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
MAGLC (ug/m3): 4,389

Pollutant: Cyclohexanone  
TLV (mg/m3): 96.3  
Maximum Hourly Emission Rate (lbs/hr): 3.49  
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
MAGLC (ug/m3): 3,438

Pollutant: VM & P Naphtha  
TLV (mg/m3): 1,398.8  
Maximum Hourly Emission Rate (lbs/hr): 0.62  
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
MAGLC (ug/m3): 49,956

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
  - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
  - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
  - c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
  - d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 84,280 pounds;
  - e. all exceedances of the average daily OC, and toluene emission limitations of 5.25 pounds.
2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

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

30.00 pounds per day OC  
5.48 tons per year OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the

record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.

Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

Toluene emissions shall not exceed 5.25 lbs/day, and 0.96 ton per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable toluene emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly toluene emission rates for the calendar year.

Also, as long as compliance with the daily toluene emission limitation is maintained, compliance with the annual toluene emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.

Emissions Limitation: No visible PE from the building

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.

Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)

9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

Operational Restriction:

84,280 pounds of coatings/adhesives/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**F. Miscellaneous Requirements**

1. None

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

Facility ID: 1667060140 Emissions Unit ID: P012 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>
P012 - Mixer 21, 40 HP High Speed Mixer	OAC rule 3745-31-05(A)(3)	Trimethyl benzene emissions shall not exceed 0.75 lbs/day, and 0.13 tons per year.  Naphthalene emissions shall not exceed 1.8 lbs/day, and 0.33 tons per year.  Organic compound (OC) emissions shall not exceed 17.95 lbs/day, and 3.28 tons per year.  The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.  The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.
	OAC rule 3745-31-05(C)	See B.4 below.
	OAC rule 3745-17-07(A)	See A.2.a and b below.
	OAC rule 3745-17-11(B)	See A.2.c below.
	OAC rule 3745-17-08(A)	See A.2.c below.
	OAC rule 3745-17-07(B)	See A.2.c below.

**2. Additional Terms and Conditions**

- (a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:

- i. 99.0 tons of volatile organic compounds (VOC);
- ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
- iii. 9.9 tons of any individual HAP.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s) VOC Limit Total HAPs Limit Individual HAP Limit

1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons
1-5	45.0 tons	11.25 tons	4.5 tons
1-6	54.0 tons	13.50 tons	5.4 tons
1-7	63.0 tons	15.75 tons	6.3 tons
1-8	72.0 tons	18.00 tons	7.2 tons
1-9	81.0 tons	20.25 tons	8.1 tons
1-10	90.0 tons	22.50 tons	9.0 tons
1-11	99.0 tons	24.75 tons	9.9 tons
1-12	99.0 tons	24.90 tons	9.9 tons

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

The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]

All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

#### B. Operational Restrictions

1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:
  - a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 2,683,200 pounds, based upon a rolling, 12-month summation of the monthly production rates.
2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Maximum Allowable  
Month(s) Cumulative Production  
Limit (Pounds)

1 371,200  
1-2 743,200  
1-3 1,027,200  
1-4 1,311,200  
1-5 1,595,200  
1-6 1,879,200  
1-7 2,147,200  
1-8 2,415,200  
1-9 2,683,200  
1-10 2,683,200  
1-11 2,683,200  
1-12 2,683,200

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.
4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:
  - a. the coatings/adhesives production rate, in pounds;
  - b. the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight);
  - c. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);
  - d. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
  - e. the number of the days the emissions unit was in operation;
  - f. the average daily OC emissions, in pounds/day (average) [calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];
  - g. the average daily Trimethyl benzene emissions, in pounds/day (average) [calculated by dividing the Trimethyl benzene emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - h. the average daily Naphthalene emissions, in pounds/day (average) [calculated by dividing the Naphthalene emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - i. the rolling, 12-month coatings/adhesives production rate, in pounds.
 

\* The evaporation rates (loss factors) for Trimethyl benzene and Naphthalene are estimated at 4% and 10%, by weight, respectively.
2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
  - a. the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);

- b. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
- c. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
- d. during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
- e. beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
- f. For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.

3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729

Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
 MAGLC (ug/m3): 21,063

Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389

Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438

Pollutant: VM & P Naphtha  
 TLV (mg/m3): 1,398.8  
 Maximum Hourly Emission Rate (lbs/hr): 0.62  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
 MAGLC (ug/m3): 49,956

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
- D. Reporting Requirements**
- 1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
    - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
    - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
    - c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
    - d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 2,683,200 pounds;
    - e. all exceedances of the average daily OC, Trimethyl benzene, and Naphthalene emission limitations of 17.95, 0.75 and 1.80 pounds, respectively.
  - 2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

- 1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitations:

17.95 pounds per day OC  
3.28 tons per year OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.

Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

Trimethyl benzene emissions shall not exceed 0.75 lbs/day, and 0.13 ton per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable Trimethyl benzene emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly toluene emission rates for the calendar year.

Also, as long as compliance with the daily Trimethyl benzene emission limitation is maintained, compliance with the annual Trimethyl benzene emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

Naphthalene emissions shall not exceed 1.8 lbs/day, and 0.33 tons per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable Naphthalene emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly Naphthalene emission rates for the calendar year.

Also, as long as compliance with the daily Naphthalene emission limitation is maintained, compliance with the annual Naphthalene emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.  
Emissions Limitation: No visible PE from the building

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.  
Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)  
9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.  
Operational Restriction:

2,683,200 pounds of coatings/adhesives/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**F. Miscellaneous Requirements**

1. None

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

**Facility ID: 1667060140 Emissions Unit ID: P013 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</u>
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P013 - Mixer 19, 30 HP High Speed Mixer OAC rule 3745-31-05(A)(3)

**Measures**

Methyl Ethyl Ketone emissions shall not exceed 21.17 lbs/day, and 3.86 tons per year.

Organic compound (OC) emissions shall not exceed 21.17 lbs/day, and 3.86 tons per year.

The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.

The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.

See B.4 below.

See A.2.a and b below.

See A.2.c below.

See A.2.c below..

See A.2.c below.

See A.2.c below.

OAC rule 3745-31-05(C)

OAC rule 3745-17-07(A)

OAC rule 3745-17-11(B)

OAC rule 3745-17-08(A)

OAC rule 3745-17-07(B)

**2. Additional Terms and Conditions**

(a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:

- i. 99.0 tons of volatile organic compounds (VOC);
- ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
- iii. 9.9 tons of any individual HAP.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s) VOC Limit Total HAPs Limit Individual HAP Limit

1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons
1-5	45.0 tons	11.25 tons	4.5 tons
1-6	54.0 tons	13.50 tons	5.4 tons
1-7	63.0 tons	15.75 tons	6.3 tons
1-8	72.0 tons	18.00 tons	7.2 tons
1-9	81.0 tons	20.25 tons	8.1 tons
1-10	90.0 tons	22.50 tons	9.0 tons
1-11	99.0 tons	24.75 tons	9.9 tons
1-12	99.0 tons	24.90 tons	9.9 tons

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

The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]

All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

**B. Operational Restrictions**

1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:

a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 1,510,080 pounds, based upon a rolling, 12-month summation of the monthly production rates.

2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Maximum Allowable  
Month(s) Cumulative Production  
Limit (Pounds)

1	222,540
1-2	445,080
1-3	600,080
1-4	755,080

- 1-5 906,080
- 1-6 1,057,080
- 1-7 1,208,080
- 1-8 1,359,080
- 1-9 1,510,080
- 1-10 1,510,080
- 1-11 1,510,080
- 1-12 1,510,080

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

- 3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.
- 4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

- 1. The permittee shall calculate and record the following information each month for this emissions unit:
  - a. the coatings/adhesives production rate, in pounds;
  - b. the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight);
  - c. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);
  - d. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
  - e. the number of the days the emissions unit was in operation;
  - f. the average daily OC emissions, in pounds/day (average) [calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];
  - g. the average daily MEK emissions, in pounds/day (average) [calculated by dividing the MEK emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - h. the rolling, 12-month coatings/adhesives production rate, in pounds.

\* The evaporation rates (loss factor) for MEK is estimated at 100%, by weight, respectively.

- 2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
  - a. the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);
  - b. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
  - c. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - d. during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - e. beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - f. For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
- 3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729

Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
 MAGLC (ug/m3): 21,063

Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389

Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438

Pollutant: VM & P Naphtha  
 TLV (mg/m3): 1,398.8  
 Maximum Hourly Emission Rate (lbs/hr): 0.62  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
 MAGLC (ug/m3): 49,956

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
  - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
  - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
  - c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
  - d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 1,510,080 pounds;
  - e. all exceedances of the average daily OC, and MEK emission limitations of 21.17 and 21.17 pounds, respectively.
2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

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

21.16 pounds per day OC  
3.86 tons per year OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.

Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

MEK emissions shall not exceed 21.16 lbs/day, and 3.86 ton per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable MEK emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly MEK emission rates for the calendar year.

Also, as long as compliance with the daily MEK emission limitation is maintained, compliance with the annual MEK emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.  
Emissions Limitation: No visible PE from the building

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.  
Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)  
9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.  
Operational Restriction:

1,151,080 pounds of coatings/adhesives/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**F. Miscellaneous Requirements**

1. None

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

Facility ID: 1667060140 Emissions Unit ID: P014 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>
P014 - Mixer 5, 15 HP High Speed Mixer	OAC rule 3745-31-05(A)(3)	Cyclo hexanone emissions shall not exceed 6.41 lbs/day, and 1.17 ton per year.  Organic compound (OC) emissions shall not exceed 6.41 lbs/day, and 1.17 tons per year.  The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.  The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.
	OAC rule 3745-31-05(C)	See B.4 below.
	OAC rule 3745-17-07(A)	See A.2.a and b below.
	OAC rule 3745-17-11(B)	See A.2.c below.
	OAC rule 3745-17-08(A)	See A.2.c below.
	OAC rule 3745-17-07(B)	See A.2.c below.

**2. Additional Terms and Conditions**

- (a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:
  - i. 99.0 tons of volatile organic compounds (VOC);
  - ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
  - iii. 9.9 tons of any individual HAP.  
To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s)	VOC Limit	Total HAPs Limit	Individual HAP Limit
1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons
1-5	45.0 tons	11.25 tons	4.5 tons
1-6	54.0 tons	13.50 tons	5.4 tons
1-7	63.0 tons	15.75 tons	6.3 tons
1-8	72.0 tons	18.00 tons	7.2 tons
1-9	81.0 tons	20.25 tons	8.1 tons
1-10	90.0 tons	22.50 tons	9.0 tons
1-11	99.0 tons	24.75 tons	9.9 tons
1-12	99.0 tons	24.90 tons	9.9 tons

The emission limitation specified by this rule is less stringent than the emission limitation

established pursuant to OAC rule 3745-31-05(A)(3).

The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]

All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

#### B. Operational Restrictions

1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:

- a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 317,860 pounds, based upon a rolling, 12-month summation of the monthly production rates.

2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Maximum Allowable  
Month(s) Cumulative Production  
Limit (Pounds)

1 46,860  
1-2 93,720  
1-3 125,720  
1-4 157,720  
1-5 189,720  
1-6 221,720  
1-7 253,720  
1-8 285,720  
1-9 317,860  
1-10 317,860  
1-11 317,860  
1-12 317,860

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.
4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:

- a. the coatings/adhesives production rate, in pounds;

- b. the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight;

- c. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);

- d. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);

- e. the number of the days the emissions unit was in operation;

- f. the average daily OC emissions, in pounds/day (average)  
[calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];

- g. the average daily cyclohexanone emissions, in pounds/day (average) [calculated by dividing the cyclohexanone emissions, from section C.1.c, by the number of days of operation, from section C.1.e];

- h. the rolling, 12-month coatings/adhesives production rate, in pounds.

\* The evaporation rate (loss factor) for cyclohexanone is estimated at 100%, by weight

2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:

- a. the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC

- emissions, from section C.1.b, for emissions units P001 through P024);
- b. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
  - c. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - d. during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - e. beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - f. For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729

Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
 MAGLC (ug/m3): 21,063

Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389

Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438

Pollutant: VM & P Naphtha  
 TLV (mg/m3): 1,398.8  
 Maximum Hourly Emission Rate (lbs/hr): 0.62  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
 MAGLC (ug/m3): 49,956

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in

stack/exhaust parameters, etc.);

- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
  - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
  - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
  - c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
  - d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 317,860 pounds;
  - e. all exceedances of the average daily OC, and cyclohexanone emission limitations of 6.41, and 6.41 pounds, respectively.
2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

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

6.41 pounds per day OC  
1.17 tons per year OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.

Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

Cyclohexanone emissions shall not exceed 6.41 lbs/day, and 1.17 tons per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable cyclohexanone emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly cyclohexanone emission rates for the calendar year.

Also, as long as compliance with the daily cyclohexanone emission limitation is maintained, compliance with the annual cyclohexanone emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.

Emissions Limitation: No visible PE from the building

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.

Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)  
 9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

Operational Restriction:

317,860 pounds of coatings/adhesives/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

F. **Miscellaneous Requirements**

- 1. None

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

Facility ID: 1667060140 Emissions Unit ID: P015 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>
P015 - Mill 34, Sand Mill with 3 gallon chamber	OAC rule 3745-31-05(A)(3)          OAC rule 3745-31-05(C) OAC rule 3745-17-07(A)	Cyclo hexanone emissions shall not exceed 6.41 lbs/day, and 1.17 ton per year.  Organic compound (OC) emissions shall not exceed 6.41 lbs/day, and 1.17 tons per year.  The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.  The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.  See B.4. below. See A.2.a and b below. See A.2.c below.

OAC rule 3745-17-11(B) See A.2.c below.  
 OAC rule 3745-17-08(A) See A.2.c below.  
 OAC rule 3745-17-07(B) See A.2.c below.

**2. Additional Terms and Conditions**

(a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:

- i. 99.0 tons of volatile organic compounds (VOC);
- ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
- iii. 9.9 tons of any individual HAP.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s) VOC Limit Total HAPs Limit Individual HAP Limit

1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons
1-5	45.0 tons	11.25 tons	4.5 tons
1-6	54.0 tons	13.50 tons	5.4 tons
1-7	63.0 tons	15.75 tons	6.3 tons
1-8	72.0 tons	18.00 tons	7.2 tons
1-9	81.0 tons	20.25 tons	8.1 tons
1-10	90.0 tons	22.50 tons	9.0 tons
1-11	99.0 tons	24.75 tons	9.9 tons
1-12	99.0 tons	24.90 tons	9.9 tons

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

The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]

All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

**B. Operational Restrictions**

1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:

a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 317,860 pounds, based upon a rolling, 12-month summation of the monthly production rates.

2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Maximum Allowable  
 Month(s) Cumulative Production  
 Limit (Pounds)

1	46,860
1-2	93,720
1-3	125,720
1-4	157,720
1-5	189,720
1-6	221,720
1-7	253,720
1-8	285,720
1-9	317,860
1-10	317,860
1-11	317,860
1-12	317,860

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.

4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:
  - a. the coatings/adhesives production rate, in pounds;
  - b. the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight;
  - c. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);
  - d. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
  - e. the number of the days the emissions unit was in operation;
  - f. the average daily OC emissions, in pounds/day (average) [calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];
  - g. the average daily cyclohexanone emissions, in pounds/day (average) [calculated by dividing the cyclohexanone emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - h. the rolling, 12-month coatings/adhesives production rate, in pounds.

\* The evaporation rate (loss factor) for cyclohexanone is estimated at 100%, by weight

2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
  - a. the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);
  - b. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
  - c. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - d. during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - e. beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - f. For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729

Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
 MAGLC (ug/m3): 21,063

Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389

Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438

Pollutant: VM & P Naphtha

TLV (mg/m3): 1,398.8

Maximum Hourly Emission Rate (lbs/hr): 0.62

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033

MAGLC (ug/m3): 49,956

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
- D. Reporting Requirements**
1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
    - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
    - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
    - c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
    - d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 317,860 pounds;
    - e. all exceedances of the average daily OC, and cyclohexanone emission limitations of 6.41, and 6.41 pounds, respectively.
  2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitations:  
6.41 pounds per day OC  
1.17 tons per year OC  
Applicable Compliance Method:  
The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.  
If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.  
The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.

Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

Cyclohexanone emissions shall not exceed 6.41 lbs/day, and 1.17 tons per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable cyclohexanone emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly cyclohexanone emission rates for the calendar year.

Also, as long as compliance with the daily cyclohexanone emission limitation is maintained, compliance with the annual cyclohexanone emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.

Emissions Limitation: No visible PE from the building

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.

Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)  
9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

Operational Restriction:

317,860 pounds of coatings/adhesives/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**F. Miscellaneous Requirements**

1. None

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

Facility ID: 1667060140 Emissions Unit ID: P016 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>
P016 - Mixer 9, 25 HP Dissolver	OAC rule 3745-31-05(A)(3)	Cyclo hexanone emissions shall not exceed 6.41 lbs/day, and 1.17 ton per year.  Organic compound (OC) emissions shall not exceed 6.41 lbs/day, and 1.17 tons per year.  The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.  The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.
	OAC rule 3745-31-05(C)	See B.4 below.
	OAC rule 3745-17-07(A)	See A.2.a and b below.
	OAC rule 3745-17-11(B)	See A.2.c below..
	OAC rule 3745-17-08(A)	See A.2.c below.
	OAC rule 3745-17-07(B)	See A.2.c below.

**2. Additional Terms and Conditions**

- (a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:
  - i. 99.0 tons of volatile organic compounds (VOC);
  - ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
  - iii. 9.9 tons of any individual HAP.  
To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s) VOC Limit Total HAPs Limit Individual HAP Limit

1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons
1-5	45.0 tons	11.25 tons	4.5 tons
1-6	54.0 tons	13.50 tons	5.4 tons
1-7	63.0 tons	15.75 tons	6.3 tons
1-8	72.0 tons	18.00 tons	7.2 tons
1-9	81.0 tons	20.25 tons	8.1 tons
1-10	90.0 tons	22.50 tons	9.0 tons
1-11	99.0 tons	24.75 tons	9.9 tons
1-12	99.0 tons	24.90 tons	9.9 tons

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

The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]

All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

**B. Operational Restrictions**

- 1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:
  - a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 317,860

pounds, based upon a rolling, 12-month summation of the monthly production rates.

2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Maximum Allowable  
Month(s) Cumulative Production  
Limit (Pounds)

1 46,860  
1-2 93,720  
1-3 125,720  
1-4 157,720  
1-5 189,720  
1-6 221,720  
1-7 253,720  
1-8 285,720  
1-9 317,860  
1-10 317,860  
1-11 317,860  
1-12 317,860

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.
4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:
- the coatings/adhesives production rate, in pounds;
  - the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight);
  - the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);
  - the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
  - the number of the days the emissions unit was in operation;
  - the average daily OC emissions, in pounds/day (average) [calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];
  - the average daily cyclohexanone emissions, in pounds/day (average) [calculated by dividing the cyclohexanone emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - the rolling, 12-month coatings/adhesives production rate, in pounds.
- \* The evaporation rate (loss factor) for cyclohexanone is estimated at 100%, by weight
2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
- the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);
  - the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
  - the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729

Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
 MAGLC (ug/m3): 21,063

Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389

Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438

Pollutant: VM & P Naphtha  
 TLV (mg/m3): 1,398.8  
 Maximum Hourly Emission Rate (lbs/hr): 0.62  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
 MAGLC (ug/m3): 49,956

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
- D. Reporting Requirements**
1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
    - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
    - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);

- c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
  - d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 317,860 pounds;
  - e. all exceedances of the average daily OC, and cyclohexanone emission limitations of 6.41, and 6.41 pounds, respectively.
2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

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

Emission Limitations:

6.41 pounds per day OC  
1.17 tons per year OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.

Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

Cyclohexanone emissions shall not exceed 6.41 lbs/day, and 1.17 tons per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable cyclohexanone emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly cyclohexanone emission rates for the calendar year.

Also, as long as compliance with the daily cyclohexanone emission limitation is maintained, compliance with the annual cyclohexanone emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.

Emissions Limitation: No visible PE from the building

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.

Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)  
9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.  
Operational Restriction:

317,860 pounds of coatings/adhesives/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**F. Miscellaneous Requirements**

- 1. None

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

Facility ID: 1667060140 Emissions Unit ID: P017 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>
P017 - Mill 35, Sand Mill with 8 gallon chamber	OAC rule 3745-31-05(A)(3)	Cyclo hexanone emissions shall not exceed 6.41 lbs/day, and 1.17 ton per year.
		Organic compound (OC) emissions shall not exceed 6.41 lbs/day, and 1.17 tons per year.
		The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.
		The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.
		See B.4 below.
	OAC rule 3745-31-05(C)	See A.2.a and b below.
	OAC rule 3745-17-07(A)	See A.2.c below.
	OAC rule 3745-17-11(B)	See A.2.c below..
	OAC rule 3745-17-08(A)	See A.2.c below.
	OAC rule 3745-17-07(B)	See A.2.c below.

**2. Additional Terms and Conditions**

- (a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:
  - i. 99.0 tons of volatile organic compounds (VOC);
  - ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
  - iii. 9.9 tons of any individual HAP.  
To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s) VOC Limit Total HAPs Limit Individual HAP Limit

1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons
1-5	45.0 tons	11.25 tons	4.5 tons
1-6	54.0 tons	13.50 tons	5.4 tons
1-7	63.0 tons	15.75 tons	6.3 tons
1-8	72.0 tons	18.00 tons	7.2 tons
1-9	81.0 tons	20.25 tons	8.1 tons
1-10	90.0 tons	22.50 tons	9.0 tons
1-11	99.0 tons	24.75 tons	9.9 tons
1-12	99.0 tons	24.90 tons	9.9 tons

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

The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]

All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

**B. Operational Restrictions**

1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:
  - a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 317,860 pounds, based upon a rolling, 12-month summation of the monthly production rates.
2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Maximum Allowable  
Month(s) Cumulative Production  
Limit (Pounds)

1	46,860
1-2	93,720
1-3	125,720
1-4	157,720
1-5	189,720
1-6	221,720
1-7	253,720
1-8	285,720
1-9	317,860
1-10	317,860
1-11	317,860
1-12	317,860

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.
4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:
  - a. the coatings/adhesives production rate, in pounds;
  - b. the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight);
  - c. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);
  - d. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
  - e. the number of the days the emissions unit was in operation;

- f. the average daily OC emissions, in pounds/day (average)  
[calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];
  - g. the average daily cyclohexanone emissions, in pounds/day (average) [calculated by dividing the cyclohexanone emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - h. the rolling, 12-month coatings/adhesives production rate, in pounds.  
\* The evaporation rate (loss factor) for cyclohexanone is estimated at 100%, by weight
2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
- a. the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);
  - b. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
  - c. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - d. during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - e. beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - f. For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729

Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
 MAGLC (ug/m3): 21,063

Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389

Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438

Pollutant: VM & P Naphtha  
 TLV (mg/m3): 1,398.8  
 Maximum Hourly Emission Rate (lbs/hr): 0.62  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
 MAGLC (ug/m3): 49,956

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

- 1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
  - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
  - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
  - c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
  - d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 317,860 pounds;
  - e. all exceedances of the average daily OC, and cyclohexanone emission limitations of 6.41, and 6.41 pounds, respectively.
- 2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

- 1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitations:

6.41 pounds per day OC  
1.17 tons per year OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.

Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

Cyclohexanone emissions shall not exceed 6.41 lbs/day, and 1.17 tons per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable cyclohexanone emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly cyclohexanone emission rates for the calendar year.

Also, as long as compliance with the daily cyclohexanone emission limitation is maintained, compliance with the annual cyclohexanone emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).  
Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.  
Emissions Limitation: No visible PE from the building

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.  
Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).  
Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)  
9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

Operational Restriction:

317,860 pounds of coatings/adhesives/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**F. Miscellaneous Requirements**

- 1. None

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

Facility ID: 1667060140 Emissions Unit ID: P018 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>
P018 - Mixer 13, 20 HP Dissolver	OAC rule 3745-31-05(A)(3)	Cyclo hexanone emissions shall not exceed 4.81 lbs/day, and 0.88 ton per year.

Organic compound (OC) emissions shall not exceed 4.81 lbs/day, and 0.88 tons per year.

The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.

The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.

See B.4 below.

See A.2.a and b below.

OAC rule 3745-31-05(C)

See A.2.c below.

OAC rule 3745-17-07(A)

See A.2.c below..

OAC rule 3745-17-11(B)

See A.2.c below.

OAC rule 3745-17-08(A)

See A.2.c below.

OAC rule 3745-17-07(B)

**2. Additional Terms and Conditions**

(a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:

- i. 99.0 tons of volatile organic compounds (VOC);
- ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
- iii. 9.9 tons of any individual HAP.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s) VOC Limit Total HAPs Limit Individual HAP Limit

1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons
1-5	45.0 tons	11.25 tons	4.5 tons
1-6	54.0 tons	13.50 tons	5.4 tons
1-7	63.0 tons	15.75 tons	6.3 tons
1-8	72.0 tons	18.00 tons	7.2 tons
1-9	81.0 tons	20.25 tons	8.1 tons
1-10	90.0 tons	22.50 tons	9.0 tons
1-11	99.0 tons	24.75 tons	9.9 tons
1-12	99.0 tons	24.90 tons	9.9 tons

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

The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]

All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

**B. Operational Restrictions**

1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:

a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 191,127 pounds, based upon a rolling, 12-month summation of the monthly production rates.

2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Maximum Allowable  
Month(s) Cumulative Production  
Limit (Pounds)

1	29,127
1-2	58,127
1-3	77,127
1-4	96,127
1-5	115,127
1-6	134,127
1-7	153,127
1-8	172,127

1-9 191,127  
 1-10 191,127  
 1-11 191,127  
 1-12 191,127

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.
4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:
  - a. the coatings/adhesives production rate, in pounds;
  - b. the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight);
  - c. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);
  - d. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
  - e. the number of the days the emissions unit was in operation;
  - f. the average daily OC emissions, in pounds/day (average) [calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];
  - g. the average daily cyclohexanone emissions, in pounds/day (average) [calculated by dividing the cyclohexanone emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - h. the rolling, 12-month coatings/adhesives production rate, in pounds.
 

\* The evaporation rate (loss factor) for cyclohexanone is estimated at 100%, by weight
2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
  - a. the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);
  - b. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
  - c. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - d. during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - e. beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - f. For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729

Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
MAGLC (ug/m3): 21,063

Pollutant: Trimethylbenzene  
TLV (mg/m3): 122.9  
Maximum Hourly Emission Rate (lbs/hr): 0.93  
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
MAGLC (ug/m3): 4,389

Pollutant: Cyclohexanone  
TLV (mg/m3): 96.3  
Maximum Hourly Emission Rate (lbs/hr): 3.49  
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
MAGLC (ug/m3): 3,438

Pollutant: VM & P Naphtha  
TLV (mg/m3): 1,398.8  
Maximum Hourly Emission Rate (lbs/hr): 0.62  
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
MAGLC (ug/m3): 49,956

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
  - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
  - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
  - c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
  - d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 191,127 pounds;
  - e. all exceedances of the average daily OC, and cyclohexanone emission limitations of 4.81, and 4.81pounds, respectively.
2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

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

4.81 pounds per day OC  
0.88 tons per year OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.

Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

Cyclohexanone emissions shall not exceed 4.81 lbs/day, and 0.88 tons per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable cyclohexanone emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly cyclohexanone emission rates for the calendar year.

Also, as long as compliance with the daily cyclohexanone emission limitation is maintained, compliance with the annual cyclohexanone emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.  
Emissions Limitation: No visible PE from the building

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.  
Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)  
9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.  
Operational Restriction:

191,127 pounds of coatings/adhesives/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**F. Miscellaneous Requirements**

1. None

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

Facility ID: 1667060140 Emissions Unit ID: P019 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>
P019 - Mill 36, Sand Mill with 8 gallon chamber	OAC rule 3745-31-05(A)(3)	Cyclo hexanone emissions shall not exceed 4.81 lbs/day, and 0.88 ton per year.  Organic compound (OC) emissions shall not exceed 4.81 lbs/day, and 0.88 tons per year.  The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.  The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.
	OAC rule 3745-31-05(C)	See B.4 below.
	OAC rule 3745-17-07(A)	See A.2.a and b below.
	OAC rule 3745-17-11(B)	See A.2.c below.
	OAC rule 3745-17-08(A)	See A.2.c below.
	OAC rule 3745-17-07(B)	See A.2.c below.

**2. Additional Terms and Conditions**

- (a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:
  - i. 99.0 tons of volatile organic compounds (VOC);
  - ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
  - iii. 9.9 tons of any individual HAP.  
To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s) VOC Limit Total HAPs Limit Individual HAP Limit

1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons
1-5	45.0 tons	11.25 tons	4.5 tons
1-6	54.0 tons	13.50 tons	5.4 tons
1-7	63.0 tons	15.75 tons	6.3 tons
1-8	72.0 tons	18.00 tons	7.2 tons
1-9	81.0 tons	20.25 tons	8.1 tons
1-10	90.0 tons	22.50 tons	9.0 tons
1-11	99.0 tons	24.75 tons	9.9 tons
1-12	99.0 tons	24.90 tons	9.9 tons

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).  
The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the

emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]

All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

#### B. Operational Restrictions

1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:

- a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 191,127 pounds, based upon a rolling, 12-month summation of the monthly production rates.

2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Month(s)	Maximum Allowable Cumulative Production Limit (Pounds)
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1	29,127
1-2	58,127
1-3	77,127
1-4	96,127
1-5	115,127
1-6	134,127
1-7	153,127
1-8	172,127
1-9	191,127
1-10	191,127
1-11	191,127
1-12	191,127

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.
4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:
  - a. the coatings/adhesives production rate, in pounds;
  - b. the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight);
  - c. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);
  - d. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
  - e. the number of the days the emissions unit was in operation;
  - f. the average daily OC emissions, in pounds/day (average) [calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];
  - g. the average daily cyclohexanone emissions, in pounds/day (average) [calculated by dividing the cyclohexanone emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - h. the rolling, 12-month coatings/adhesives production rate, in pounds.
 

\* The evaporation rate (loss factor) for cyclohexanone is estimated at 100%, by weight
2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
  - a. the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);

- b. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
  - c. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - d. during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - e. beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - f. For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):
- Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729
- Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
 MAGLC (ug/m3): 21,063
- Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389
- Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438
- Pollutant: VM & P Naphtha  
 TLV (mg/m3): 1,398.8  
 Maximum Hourly Emission Rate (lbs/hr): 0.62  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
 MAGLC (ug/m3): 49,956
- Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
- D. Reporting Requirements**
- 1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
    - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
    - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
    - c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
    - d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 191,127 pounds;
    - e. all exceedances of the average daily OC, and cyclohexanone emission limitations of 4.81, and 4.81pounds, respectively.
  - 2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated . Each report shall be submitted within 30 days after the deviation occurs.
- E. Testing Requirements**
- 1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitations:  
4.81 pounds per day OC  
0.88 tons per year OC  
  
Applicable Compliance Method:  
  
The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.  
  
If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.  
  
The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.  
  
Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).  
Emission Limitation:  
  
Cyclohexanone emissions shall not exceed 4.81 lbs/day, and 0.88 tons per year.  
  
Applicable Compliance Method:  
  
The permittee shall demonstrate compliance with the daily allowable cyclohexanone emission limitation based on the record keeping requirements established in section C.1 of this permit.  
  
If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.  
  
The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly cyclohexanone emission rates for the calendar year.  
  
Also, as long as compliance with the daily cyclohexanone emission limitation is maintained, compliance with the annual cyclohexanone emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).  
Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.  
  
Applicable Compliance Method:  
  
Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.  
Emissions Limitation: No visible PE from the building  
  
Applicable Compliance Method:  
  
Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.  
Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)  
 9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

Operational Restriction:

191,127 pounds of coatings/adhesives/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

F. **Miscellaneous Requirements**

1. None

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

Facility ID: 1667060140 Emissions Unit ID: P020 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>
P020 - S 3 Mixer 10 HP High Speed dispersion	OAC rule 3745-31-05(A)(3)	VM & P Naphtha emissions shall not exceed 9.90 lbs/day, and 1.81 ton per year.  Organic compound (OC) emissions shall not exceed 9.90 lbs/day, and 1.81 tons per year.  The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.  The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.
	OAC rule 3745-31-05(C)	See B.4 below.
	OAC rule 3745-17-07(A)	See A.2.a and b below.
	OAC rule 3745-17-11(B)	See A.2.c below.
	OAC rule 3745-17-08(A)	See A.2.c below.

OAC rule 3745-17-07(B)

See A.2.c below.

**2. Additional Terms and Conditions**

(a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:

- i. 99.0 tons of volatile organic compounds (VOC);
- ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
- iii. 9.9 tons of any individual HAP.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s) VOC Limit Total HAPs Limit Individual HAP Limit

1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons
1-5	45.0 tons	11.25 tons	4.5 tons
1-6	54.0 tons	13.50 tons	5.4 tons
1-7	63.0 tons	15.75 tons	6.3 tons
1-8	72.0 tons	18.00 tons	7.2 tons
1-9	81.0 tons	20.25 tons	8.1 tons
1-10	90.0 tons	22.50 tons	9.0 tons
1-11	99.0 tons	24.75 tons	9.9 tons
1-12	99.0 tons	24.90 tons	9.9 tons

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

The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]  
All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

**B. Operational Restrictions**

1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:

a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 3,536,485 pounds, based upon a rolling, 12-month summation of the monthly production rates.

2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Maximum Allowable  
Month(s) Cumulative Production  
Limit (Pounds)

1	522,743
1-2	1,065,485
1-3	1,065,385
1-4	1,418,485
1-5	2,124,485
1-6	2,477,485
1-7	2,830,385
1-8	3,183,485
1-9	3,536,485
1-10	3,536,485
1-11	3,536,485
1-12	3,536,485

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.

4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:
  - a. the coatings/adhesives production rate, in pounds;
  - b. the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight);
  - c. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);
  - d. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
  - e. the number of the days the emissions unit was in operation;
  - f. the average daily OC emissions, in pounds/day (average) [calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];
  - g. the average daily VM & P Naphtha emissions, in pounds/day (average) [calculated by dividing the VM & P Naphtha emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - h. the rolling, 12-month coatings/adhesives production rate, in pounds.

\* The evaporation rate (loss factor) for VM & P Naphtha is estimated at 100%, by weight

2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
  - a. the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);
  - b. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
  - c. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - d. during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - e. beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - f. For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729

Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
 MAGLC (ug/m3): 21,063

Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389

Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438

Pollutant: VM & P Naphtha  
 TLV (mg/m3): 1,398.8  
 Maximum Hourly Emission Rate (lbs/hr): 0.62

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033

MAGLC (ug/m3): 49,956

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
  - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
  - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
  - c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
  - d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 3,536,485 pounds;
  - e. all exceedances of the average daily OC, and VM & P Naptha emission limitations of 9.90, and 9.90 pounds, respectively.
2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

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

9.90 pounds per day OC  
1.81 tons per year OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.

Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC

emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

VM & P Naptha emissions shall not exceed 9.90 lbs/day, and 1.81 tons per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable VM & P Naptha emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly VM & P Naptha emission rates for the calendar year.

Also, as long as compliance with the daily VM & P Naptha emission limitation is maintained, compliance with the annual VM & P Naptha emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.

Emissions Limitation: No visible PE from the building

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.

Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)

9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

Operational Restriction:

3,536,485 pounds of coatings/adhesives/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**F. Miscellaneous Requirements**

1. None

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

**Facility ID: 1667060140 Emissions Unit ID: P021 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>
P021 - S 1 10 HP Dispersion Mixer	OAC rule 3745-31-05(A)(3)	Trimethyl benzene emissions shall not exceed 1.68 lbs/day, and 0.31 tons per year.  Organic compound (OC) emissions shall not exceed 4.0 lbs/day, and 0.73 tons per year.  The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.  The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.
	OAC rule 3745-31-05(C)	See B.4 below.
	OAC rule 3745-17-07(A)	See A.2.a and b below.
	OAC rule 3745-17-11(B)	See A.2.c below.
	OAC rule 3745-17-08(A)	See A.2.c below.
	OAC rule 3745-17-07(B)	See A.2.c below.

**2. Additional Terms and Conditions**

- (a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:

- i. 99.0 tons of volatile organic compounds (VOC);
- ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
- iii. 9.9 tons of any individual HAP.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s) VOC Limit Total HAPs Limit Individual HAP Limit

1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons
1-5	45.0 tons	11.25 tons	4.5 tons
1-6	54.0 tons	13.50 tons	5.4 tons
1-7	63.0 tons	15.75 tons	6.3 tons
1-8	72.0 tons	18.00 tons	7.2 tons
1-9	81.0 tons	20.25 tons	8.1 tons
1-10	90.0 tons	22.50 tons	9.0 tons
1-11	99.0 tons	24.75 tons	9.9 tons
1-12	99.0 tons	24.90 tons	9.9 tons

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

The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]

All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

**B. Operational Restrictions**

- 1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:

- a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 394,200 pounds, based upon a rolling, 12-month summation of the monthly production rates.

2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Maximum Allowable  
Month(s) Cumulative Production  
Limit (Pounds)

1 41,100  
1-2 82,200  
1-3 121,200  
1-4 160,200  
1-5 199,200  
1-6 277,200  
1-7 316,200  
1-8 355,200  
1-9 394,200  
1-10 394,200  
1-11 394,200  
1-12 394,200

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.
4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:
- the coatings/adhesives production rate, in pounds;
  - the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight);
  - the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);
  - the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
  - the number of the days the emissions unit was in operation;
  - the average daily OC emissions, in pounds/day (average) [calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];
  - the average daily trimethyl benzene emissions, in pounds/day (average) [calculated by dividing the trimethyl benzene emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - the rolling, 12-month coatings/adhesives production rate, in pounds.
- \* The evaporation rate (loss factor) for trimethyl benzene is estimated at 42%, by weight
2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
- the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);
  - the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
  - the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729

Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
 MAGLC (ug/m3): 21,063

Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389

Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438

Pollutant: VM & P Naphtha  
 TLV (mg/m3): 1,398.8  
 Maximum Hourly Emission Rate (lbs/hr): 0.62  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
 MAGLC (ug/m3): 49,956

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
  - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
  - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
  - c. beginning the first month following the first 12 calendar months of operation following the issuance of this

permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;

- d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 394,200 pounds;
  - e. all exceedances of the average daily OC, and trimethyl benzene emission limitations of 4.00, and 1.68 pounds, respectively.
2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

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

Emission Limitations:

4.00 pounds per day OC  
0.73 tons per year OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.

Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

Trimethyl benzene emissions shall not exceed 1.68 lbs/day, and 0.31 tons per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable trimethyl benzene emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly trimethyl benzene emission rates for the calendar year.

Also, as long as compliance with the daily trimethyl benzene emission limitation is maintained, compliance with the annual trimethyl benzene emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.

Emissions Limitation: No visible PE from the building

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.

Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)  
9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above

based on the record keeping requirements established in sections C.1 and C.2 of this permit.

Operational Restriction:

394,200 pounds of coatings/adhesives/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**F. Miscellaneous Requirements**

- 1. None

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

**Facility ID: 1667060140 Emissions Unit ID: P022 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>
P022 - SM 33 Sand mill with 3 gallon chamber	OAC rule 3745-31-05(A)(3)	Trimethyl benzene emissions shall not exceed 1.68 lbs/day, and 0.31 tons per year.
		Organic compound (OC) emissions shall not exceed 4.0 lbs/day, and 0.73 tons per year.
		The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.
		The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.
		See B.4 below.
		See A.2.a and b below.
	OAC rule 3745-31-05(C)	See A.2.c below.
	OAC rule 3745-17-07(A)	See A.2.c below.
	OAC rule 3745-17-11(B)	See A.2.c below..
	OAC rule 3745-17-08(A)	See A.2.c below.
	OAC rule 3745-17-07(B)	See A.2.c below.

**2. Additional Terms and Conditions**

- (a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:
  - i. 99.0 tons of volatile organic compounds (VOC);
  - ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
  - iii. 9.9 tons of any individual HAP.  
To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s) VOC Limit Total HAPs Limit Individual HAP Limit

- 1 9.0 tons 2.25 tons 0.9 tons
- 1-2 18.0 tons 4.50 tons 1.8 tons
- 1-3 27.0 tons 6.75 tons 2.7 tons
- 1-4 36.0 tons 9.00 tons 3.6 tons
- 1-5 45.0 tons 11.25 tons 4.5 tons
- 1-6 54.0 tons 13.50 tons 5.4 tons
- 1-7 63.0 tons 15.75 tons 6.3 tons
- 1-8 72.0 tons 18.00 tons 7.2 tons
- 1-9 81.0 tons 20.25 tons 8.1 tons
- 1-10 90.0 tons 22.50 tons 9.0 tons
- 1-11 99.0 tons 24.75 tons 9.9 tons
- 1-12 99.0 tons 24.90 tons 9.9 tons

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

The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]

All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

**B. Operational Restrictions**

1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:
  - a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 394,200 pounds, based upon a rolling, 12-month summation of the monthly production rates.

2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Maximum Allowable  
Month(s) Cumulative Production  
Limit (Pounds)

- 1 41,100
- 1-2 82,200
- 1-3 121,200
- 1-4 160,200
- 1-5 199,200
- 1-6 277,200
- 1-7 316,200
- 1-8 355,200
- 1-9 394,200
- 1-10 394,200
- 1-11 394,200
- 1-12 394,200

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.
4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:
  - a. the coatings/adhesives production rate, in pounds;
  - b. the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight;
  - c. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company -supplied loss factor\*);
  - d. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
  - e. the number of the days the emissions unit was in operation;
  - f. the average daily OC emissions, in pounds/day (average)

[calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];

- g. the average daily trimethyl benzene emissions, in pounds/day (average) [calculated by dividing the trimethyl benzene emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - h. the rolling, 12-month coatings/adhesives production rate, in pounds.
    - \* The evaporation rate (loss factor) for trimethyl benzene is estimated at 42%, by weight
2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
- a. the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);
  - b. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
  - c. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - d. during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - e. beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - f. For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729

Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
 MAGLC (ug/m3): 21,063

Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389

Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438

Pollutant: VM & P Naphtha  
 TLV (mg/m3): 1,398.8  
 Maximum Hourly Emission Rate (lbs/hr): 0.62  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
 MAGLC (ug/m3): 49,956

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).

4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
  - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
  - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
  - c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
  - d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 3,536,485 pounds;
  - e. all exceedances of the average daily OC, and trimethyl benzene emission limitations of 4.00, and 1.68 pounds, respectively.
2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

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

4.00 pounds per day OC  
0.73 tons per year OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.

Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

Trimethyl benzene emissions shall not exceed 1.68 lbs/day, and 0.31 tons per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable trimethyl benzene emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly trimethyl benzene emission rates for the calendar year.

Also, as long as compliance with the daily trimethyl benzene emission limitation is maintained, compliance with

the annual trimethyl benzene emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.

Emissions Limitation: No visible PE from the building

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.

Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)  
 9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

Operational Restriction:

394,200 pounds of coatings/adhesives/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**F. Miscellaneous Requirements**

- 1. None

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

Facility ID: 1667060140 Emissions Unit ID: P023 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>
P023 - S 18, 30 HP Dispersion Mixer	OAC rule 3745-31-05(A)(3)	Cyclo hexanone emissions shall not exceed 4.52 lbs/day, and 0.82 ton per year.
		Organic compound (OC) emissions shall not exceed

4.52 lbs/day, and 0.82 tons per year.

The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.

The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.

See B.4 below.

OAC rule 3745-31-05(C)

See A.2.a and b below.

OAC rule 3745-17-07(A)

See A.2.c below.

OAC rule 3745-17-11(B)

See A.2.c below..

OAC rule 3745-17-08(A)

See A.2.c below.

OAC rule 3745-17-07(B)

See A.2.c below.

**2. Additional Terms and Conditions**

(a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:

- i. 99.0 tons of volatile organic compounds (VOC);
- ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
- iii. 9.9 tons of any individual HAP.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s) VOC Limit Total HAPs Limit Individual HAP Limit

1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons
1-5	45.0 tons	11.25 tons	4.5 tons
1-6	54.0 tons	13.50 tons	5.4 tons
1-7	63.0 tons	15.75 tons	6.3 tons
1-8	72.0 tons	18.00 tons	7.2 tons
1-9	81.0 tons	20.25 tons	8.1 tons
1-10	90.0 tons	22.50 tons	9.0 tons
1-11	99.0 tons	24.75 tons	9.9 tons
1-12	99.0 tons	24.90 tons	9.9 tons

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

The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]

All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

**B. Operational Restrictions**

1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:

- a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 1,191,360 pounds, based upon a rolling, 12-month summation of the monthly production rates.

2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Maximum Allowable  
Month(s) Cumulative Production  
Limit (Pounds)

1	178,360
1-2	297,360
1-3	416,360
1-4	535,360
1-5	654,360
1-6	773,360
1-7	892,360
1-8	1,011,360
1-9	1,191,360
1-10	1,191,360

1-11 1,191,360  
1-12 1,191,360

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.
4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:
  - a. the coatings/adhesives production rate, in pounds;
  - b. the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight);
  - c. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);
  - d. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
  - e. the number of the days the emissions unit was in operation;
  - f. the average daily OC emissions, in pounds/day (average) [calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];
  - g. the average daily cyclohexanone emissions, in pounds/day (average) [calculated by dividing the cyclohexanone emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - h. the rolling, 12-month coatings/adhesives production rate, in pounds.

\* The evaporation rate (loss factor) for cyclohexanone is estimated at 100%, by weight

2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
  - a. the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);
  - b. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);
  - c. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - d. during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - e. beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - f. For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
TLV (mg/m3): 188.4  
Maximum Hourly Emission Rate (lbs/hr): 1.95  
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
MAGLC (ug/m3): 6,729

Pollutant: Methyl Ethyl Ketone  
TLV (mg/m3): 589.8  
Maximum Hourly Emission Rate (lbs/hr): 8.97  
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
MAGLC (ug/m3): 21,063

Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389

Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438

Pollutant: VM & P Naphtha  
 TLV (mg/m3): 1,398.8  
 Maximum Hourly Emission Rate (lbs/hr): 0.62  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
 MAGLC (ug/m3): 49,956

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
  - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
  - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
  - c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
  - d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 1,191,360 pounds;
  - e. all exceedances of the average daily OC, and cyclohexanone emission limitations of 4.52, and 4.52 pounds, respectively.
2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

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

4.52 pounds per day OC  
0.82 tons per year OC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.

Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emission Limitation:

Cyclohexanone emissions shall not exceed 4.52 lbs/day, and 0.82 tons per year.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the daily allowable cyclohexanone emission limitation based on the record keeping requirements established in section C.1 of this permit.

If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly cyclohexanone emission rates for the calendar year.

Also, as long as compliance with the daily cyclohexanone emission limitation is maintained, compliance with the annual cyclohexanone emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).

Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.

Emissions Limitation: No visible PE from the building

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.

Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

Emission Limitations:

99.9 tons VOC/year (for emissions units P001 - P024, combined)

9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

Operational Restriction:

1,191,360 pounds of coatings/adhesives/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

F. **Miscellaneous Requirements**

1. None

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

Facility ID: 1667060140 Emissions Unit ID: P024 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>
P024 - SM 37 sand mill with 3 gallon chamber	OAC rule 3745-31-05(A)(3)	Cyclo hexanone emissions shall not exceed 4.52 lbs/day, and 0.82 ton per year.
		Organic compound (OC) emissions shall not exceed 4.52 lbs/day, and 0.82 tons per year.
		The visible particulate emissions (PE) shall not exceed 10% opacity from any stack, as a 6-minute average, and no visible PE from building ventilation.
		The PE shall not exceed 0.1 lb/hr, and 0.44 ton per year.
		See B.4 below.
		See A.2.a and b below.
	OAC rule 3745-31-05(C)	See A.2.c below.
	OAC rule 3745-17-07(A)	See A.2.c below..
	OAC rule 3745-17-11(B)	See A.2.c below.
	OAC rule 3745-17-08(A)	See A.2.c below.
	OAC rule 3745-17-07(B)	See A.2.c below.

**2. Additional Terms and Conditions**

- (a) The total combined annual emissions from the facility (which shall include emissions units P001 through P024, and all emission units that are exempt or permit by rule (OAC rule 3745-31-03), and de minimis (OAC rule 3745-15-05)) shall not exceed the following limitations, as rolling, 12-month summations:
  - i. 99.0 tons of volatile organic compounds (VOC);
  - ii. 24.9 tons of all hazardous air pollutants (HAPs) combined; and
  - iii. 9.9 tons of any individual HAP.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following Table for the total combined emissions from the facility:

Month(s) VOC Limit Total HAPs Limit Individual HAP Limit

1	9.0 tons	2.25 tons	0.9 tons
1-2	18.0 tons	4.50 tons	1.8 tons
1-3	27.0 tons	6.75 tons	2.7 tons
1-4	36.0 tons	9.00 tons	3.6 tons
1-5	45.0 tons	11.25 tons	4.5 tons
1-6	54.0 tons	13.50 tons	5.4 tons
1-7	63.0 tons	15.75 tons	6.3 tons
1-8	72.0 tons	18.00 tons	7.2 tons
1-9	81.0 tons	20.25 tons	8.1 tons
1-10	90.0 tons	22.50 tons	9.0 tons
1-11	99.0 tons	24.75 tons	9.9 tons
1-12	99.0 tons	24.90 tons	9.9 tons

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

The 0.1 lb/hr & 0.44 ton/yr PE limitations are established for PTI purposes to reflect the emissions unit's potentials to emit. Therefore, no additional monitoring, record keeping and/or

reporting requirements is necessary to ensure compliance with these emission limitations.

[Please note that if any proposed change(s), such as with production capacity, operating procedures, process materials, emission control equipment, or anything else that increase(s) the potential to emit, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).]

All OCs are considered to be VOCs.

This emissions unit is not subject to OAC rule 3745-21-07(G)(2) as determined by the Ohio Supreme Court in Ashland Chem. Co. v. Jones (2001), 92 Ohio St.3.d 234.

**B. Operational Restrictions**

1. In order to demonstrate compliance with the facility-wide limitations listed above, the permittee has voluntarily accepted the following operational restriction:

- a. The maximum annual coatings/adhesives production rate for this emissions unit shall not exceed 1,191,360 pounds, based upon a rolling, 12-month summation of the monthly production rates.

2. To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative coatings/adhesives production rates specified in the following Table:

Maximum Allowable  
Month(s) Cumulative Production  
Limit (Pounds)

- 1 178,360
- 1-2 297,360
- 1-3 416,360
- 1-4 535,360
- 1-5 654,360
- 1-6 773,360
- 1-7 892,360
- 1-8 1,011,360
- 1-9 1,191,360
- 1-10 1,191,360
- 1-11 1,191,360
- 1-12 1,191,360

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates.

3. The permittee has agreed to accept limitations on annual coating production to keep the annual facility-wide VOC emissions below 99 tons per year, all hazardous air pollutants below 24.9 tons per year, and any individual hazardous air pollutant (HAP) below 9.9 tons per year.
4. The permittee shall properly install (or have properly installed), adjust, operate, and maintain a closed-lid design for this emissions unit to contain and limit PE emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.

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

1. The permittee shall calculate and record the following information each month for this emissions unit:
  - a. the coatings/adhesives production rate, in pounds;
  - b. the total calculated OC emissions for all the coatings/adhesives produced, in pounds (calculated by multiplying the total production rate, from section C.1.a above, by a company-supplied evaporation rate\* (loss factor) of 0.5%, by weight);
  - c. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds (calculated by multiplying the OC emission rate, from section C.1.b above, by a company-supplied loss factor\*);
  - d. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (calculated by summing the individual HAP emissions, from section C.1.c above, for all HAPs);
  - e. the number of the days the emissions unit was in operation;
  - f. the average daily OC emissions, in pounds/day (average) [calculated by dividing the OC emissions, from section C.1.b, by the number of days of operation, from section C.1.e];
  - g. the average daily cyclohexanone emissions, in pounds/day (average) [calculated by dividing the cyclohexanone emissions, from section C.1.c, by the number of days of operation, from section C.1.e];
  - h. the rolling, 12-month coatings/adhesives production rate, in pounds.
 

\* The evaporation rate (loss factor) for cyclohexanone is estimated at 100%, by weight
2. The permittee shall calculate and record the following information each month for emissions units P001 through P024, combined:
  - a. the total calculated VOC emissions for all the coatings/adhesives produced, in pounds (summation of the VOC emissions, from section C.1.b, for emissions units P001 through P024);
  - b. the total calculated emissions for each individual HAP for all the coatings/adhesives produced, in pounds

(summation of the individual HAP emissions, from section C.1.c, for emissions units P001 through P024);

- c. the total calculated emissions for all the HAPs, combined, for all the coatings/adhesives produced, in pounds (summation of the combined HAPs emissions, from section C.1.d, for emissions units P001 through P024);
  - d. during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative VOC, individual HAP and combined HAPs emissions, in tons; and
  - e. beginning the first month after the first 12 months of operation following the issuance of this permit, the rolling, 12-month VOC, individual HAP and combined HAPs emission rates, in tons.
  - f. For each day during which the permittee did not operate the closed-lid system to control PE from this emissions unit, the permittee shall maintain a record of such instance for this emissions unit.
3. The permit to install for this emissions units P001 through P024 were 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 SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene  
 TLV (mg/m3): 188.4  
 Maximum Hourly Emission Rate (lbs/hr): 1.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3,255  
 MAGLC (ug/m3): 6,729

Pollutant: Methyl Ethyl Ketone  
 TLV (mg/m3): 589.8  
 Maximum Hourly Emission Rate (lbs/hr): 8.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 14,750  
 MAGLC (ug/m3): 21,063

Pollutant: Trimethylbenzene  
 TLV (mg/m3): 122.9  
 Maximum Hourly Emission Rate (lbs/hr): 0.93  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,550  
 MAGLC (ug/m3): 4,389

Pollutant: Cyclohexanone  
 TLV (mg/m3): 96.3  
 Maximum Hourly Emission Rate (lbs/hr): 3.49  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2,405  
 MAGLC (ug/m3): 3,438

Pollutant: VM & P Naphtha  
 TLV (mg/m3): 1,398.8  
 Maximum Hourly Emission Rate (lbs/hr): 0.62  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,033  
 MAGLC (ug/m3): 49,956

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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.).
4. If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic

Policy"; and

- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit, that identify the following:
  - a. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative VOC, individual HAP and combined HAPs emissions (see section A.2.b);
  - b. during the first 12 calendar months of operation following the issuance of this permit, all exceedances of the monthly cumulative coatings/adhesives production rates restrictions (see section B.2);
  - c. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month VOC, individual HAP and combined HAPs emission limitations of 99.0 tons, 9.9 tons and 24.9 tons, respectively;
  - d. beginning the first month following the first 12 calendar months of operation following the issuance of this permit, all exceedances of the rolling, 12-month coatings/adhesives production restriction of 1,191,360 pounds;
  - e. all exceedances of the average daily OC, and cyclohexanone emission limitations of 4.52, and 4.52 pounds, respectively.
2. The permittee shall submit deviation reports that identify each day when the closed-lid system to control PE from this emissions unit was not operated. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitations:  
4.52 pounds per day OC  
0.82 tons per year OC  
  
Applicable Compliance Method:  
  
The permittee shall demonstrate compliance with the daily allowable OC emission limitation based on the record keeping requirements established in section C.1 of this permit.  
  
If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.  
  
The permittee shall demonstrate compliance with the annual limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly OC emission rates for the calendar year.  
  
Also, as long as compliance with the daily OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).  
Emission Limitation:  
  
Cyclohexanone emissions shall not exceed 4.52 lbs/day, and 0.82 tons per year.  
  
Applicable Compliance Method:  
  
The permittee shall demonstrate compliance with the daily allowable cyclohexanone emission limitation based on the record keeping requirements established in section C.1 of this permit.  
  
If required, compliance with allowable emission limitation shall be based on stack testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.  
  
The permittee shall demonstrate compliance with the annual emission limitation based on the record keeping requirements established in section C.1 of this permit, and shall be the summation of the 12 monthly cyclohexanone emission rates for the calendar year.  
  
Also, as long as compliance with the daily cyclohexanone emission limitation is maintained, compliance with the annual cyclohexanone emission limitation shall be assumed (the annual limitation was determined by multiplying the daily limitation by 365, and then dividing by 2000).  
Emissions Limitation: Visible PE shall not exceed 10% opacity from any stack, as a 6-minute average.  
  
Applicable Compliance Method:  
  
Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 9 of 40 CFR Part 60, Appendix A.  
Emissions Limitation: No visible PE from the building  
  
Applicable Compliance Method:  
  
Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified Method 22 of 40 CFR Part 60, Appendix A.  
Emission Limitation: 0.1 lb PE/hr & 0.44 ton PE/year

**Applicable Compliance Method:**

If required, compliance with the hourly allowable PE limitation shall be based on stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

As long as compliance with the daily PE emission limitation is maintained, compliance with the annual PE emission limitation shall be assumed (the annual limitation was determined by multiplying the hourly limitation by 8760, and then dividing by 2000).

**Emission Limitations:**

99.9 tons VOC/year (for emissions units P001 - P024, combined)  
9.9 tons of any individual HAP/yr (for emissions units P001 - P024, combined) 24.90 tons combined HAPs/yr (for emissions units P001 - P024, combined) monthly cumulative VOC, individual HAP, and combined HAPs emissions (for emissions units P001 - P024, combined)

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the annual and monthly cumulative emission limitations above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**Operational Restriction:**

1,191,360 pounds of coatings/adhesives/yr

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the annual and monthly cumulative production rates restrictions above based on the record keeping requirements established in sections C.1 and C.2 of this permit.

**F. Miscellaneous Requirements**

1. None