

Facility ID: 1677010782 Issuance type: Final State Permit To Operate

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

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

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

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

Facility ID: 1677010782 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 - Fluorosilicone Gum mixer, consisting of Reactor Vessel, charging, condensation and wastewater tanks	OAC rule 3745-31-05(A)(3)	1.5 lbs Acetic Acid / Hour 6.57 tons Acetic Acid / Year
		2.92 tons PE / Year
		5% opacity as a six-minute average, except as provided by rule
		A chilled water condenser with a 90% minimum control efficiency to ensure the allowable mass emission rate for the acetic acid is obtained.
	OAC rule 3745-17-07(A)(1)	Less stringent than, or equal in stringency to, the requirements of OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11(B)(1)	0.668 pounds per hour of particulate emissions
	OAC rule 3745-21-07(G)(1)	See A.2.a. below.

**2. Additional Terms and Conditions**

- (a) The requirements of this rule are less stringent than the requirement of OAC rule 3745-31-05(A)(3) and this permit to install. The OC hourly and annual emission limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with this limit.

**B. Operational Restrictions**

1. 1. The temperature of the cooling water from the chiller, before entering the condenser, for any 3-hour block of time, shall not be greater than 55 degrees Fahrenheit, when the unit is in operation.
2. The chillers shall be in operation whenever the silicone gum reactor is in operation.

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

1. The permittee shall maintain a continuous temperature monitor which measures the temperature of the cooling water coming out of the chiller before entering the heat exchanger of the condenser when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple and monitor shall be guaranteed by the manufacturer to be within +/- 1 percent of the temperature being measured or +/- 5 degrees Fahrenheit, whichever is greater. The temperature monitor shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day that this emissions unit is in operation..

- a. A minimum of one temperature reading of the cooling water from the chiller during each of the 8 3-hour blocks of time during the day when the emissions unit is in operation.
  - b. A log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit

2. The permittee shall maintain the following information for this emissions unit:
  - a. the MSDS sheets for each liquid organic material employed; and
  - b. documentation as to whether or not each material is a photochemically reactive material, as defined by OAC rule 3745-21-01(C)(5).
3. The permit to install for this emissions unit P010 was evaluated based on the actual materials (typically coatings and cleanup 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 for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Acetic Acid

TLV (mg/m3): 24.54

Maximum Hourly Emission Rate (lbs/hr): 1.50

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 95.42

MAGLC (ug/m3): 584.3

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 (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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 its 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. 1. The permittee shall submit temperature deviation (excursion) reports that identify all 3-hour blocks of time during which the temperature of the cooling water to the chillers exceeded the temperature limitation specified above.

**E. Testing Requirements**

1. Compliance with the emission limitations in section A.1.1 of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

1.5 pounds organic compounds per hour, including all individual air toxics.

Applicable Compliance Method:

Compliance with the allowable emissions of organic compounds shall be determined using information provided by Shincor Silicones, Inc. in their PTI application which was received on May 24, 2005. Based on mass balance studies performed by Shincor Silicones, Inc., and their knowledge of the product, an average of 27.0 pounds of organic compounds escapes per batch and is emitted through the stack. The annual emission rate is calculated by multiplying that factor the number of batches processed during the year.

Should the process and/or equation for allowable OC emissions change, the permittee shall reconfirm the OC emission factors and submit appropriate documentation to the Akron RAQMD.

- b. Emission Limitation:

0.668 lb/hr particulate emissions

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

c. Emission Limitation:

5% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be demonstrated based upon OAC rule 3745-17-03(B)(1) and the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

2. Formulation data or USEPA Method 24 shall be used to determine the organic compound or VOC content of the raw material and cleanup materials employed.

F. **Miscellaneous Requirements**

1. None