Facility ID: 1431052206 Issuance type: Final State Permit To Operate

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

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

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

Facility ID: 1431052206 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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P007 - Emulsion polymerization process w/ thermal incinerator R-5	OAC rule 3745-31-05(A)(3) (PTI 14-4191)	Organic compound (OC) emissions shall not exceed 7.36 pounds per day (lb/day) and 1.34 tons per year (TPY). Particulate emissions (PE) and emissions of Particulate Matter 10 microns or less in diameter (PM10) shall not exceed 4.0 lb/day and 0.73 TPY See terms and conditions A.2.a through A.2.c. See sections B.1 and B.2. The requirements of this rule also include compliance with OAC rules 3745-17-07(B), OAC rule 3745-17-08 (B), and OAC rule 3745-31-05(C).
	OAC rule 3745-17-07(B)(1)	Fugitive visible particulate emissions shall not exceed 20% opacity as a 3-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ Reasonably Available Control Measures (RACM) to prevent fugitive emissions from becoming airborne. Fugitive particulate emissions shall be minimized by the use of good engineering practices.
	OAC 3745-21-07(G)(2)	The requirements of this rule are less stringent than the OC emissions limits established per OAC 3745-31-05 (A)(3).
	OAC rule 3745-31-05(C)	See term A.2.b. See section B.1.

2. **Additional Terms and Conditions**

   (a) Best Available Technology for the control of OC emissions from emissions unit P007 is the installation and maintenance of a thermal incinerator capable of maintaining a 95% overall control efficiency.
   The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units P003 through P008, T001 through T023, other de minimus air contaminant sources, as defined in OAC rule 3745-15-05, and other air contaminant sources exempt from the requirement to obtain a permit-to-install pursuant to OAC rule 3745-31-03 installed subsequent to the issuance of this permit, combined, shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.
   The daily emissions limits are based on the maximum production capacity of the equipment; therefore, no record keeping or reporting is required to demonstrate compliance with the emissions limits.

B. **Operational Restrictions**

1. All of the OC emissions from this emissions unit shall be vented to the thermal oxidizer when the emissions unit is in operation.

2. The average temperature of the exhaust gases from the thermal incinerator, for any 3-hour block of time, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

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

1. The permittee shall properly operate, and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emissions unit(s) is/are in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder 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 and recorder shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals. The permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:

   a. the average temperature of the exhaust gases from the thermal incinerator during each of the eight 3-hour blocks of time during the day;

   b. all 3-hour blocks of time, when the emissions unit(s) controlled by the thermal oxidizer was/were in operation, during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature measured during the most recent emissions test that demonstrated the emissions unit(s) was/were in compliance; and

   c. a log or record of the operating time for the capture (collection) system, thermal oxidizer, monitoring equipment, and the associated emissions unit(s).

   These records shall be maintained at the facility for a period of five years.

2. The permittee shall maintain monthly records of the following for the entire facility:

   a. the name and identification number of each liquid organic material utilizied ;
   b. the individual Hazardous Air Pollutant (HAP) content for each HAP of each liquid organic material utilizied, in pounds of individual HAP per pound of liquid organic material utilizied;
   c. the total combined HAP content of each liquid organic material in pounds of combined HAPs per pound of liquid organic material utilizied, (sum all the individual HAP contents from (b));
   d. the number of pounds of liquid organic material utilizied ;
   e. the name and identification of each cleanup material employed (if applicable);
   f. the individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per pound of cleanup material, utilized;
   g. the total combined HAP content of each cleanup material, in pounds of combined HAPs per pound of cleanup material utilized(sum all the individual HAP contents from (f));
   h. the number of pounds of each cleanup material utilized;
   i. the total individual HAP emissions for each HAP from all liquid organic material utilizied and cleanup materials utilized, in pounds or tons per month (for each HAP, the sum of (b) times (d) for each liquid organic material utilizied and the sum of (f) times (h) for each cleanup material);
   j. the total combined HAP emissions from all liquid organic material utilizied and cleanup materials utilized, in pounds or tons per month (the sum of (c) times (d) for each liquid organic material utilizied plus the sum of (g) times (h) for each cleanup material);
   k. the controlled individual HAP emissions from this facility (multiply (i) for each HAP by (1-x/100)) where x is the overall control efficiency as demonstrated during the most recent emission test which showed that the emissions unit was in compliance;
   l. the controlled combined HAP emissions from this facility (multiply (j) by (1-x/100)) where x is the overall control efficiency as demonstrated during the most recent emission test which showed that the emissions unit was in compliance;
   m. the rolling, 12-month summation of the controlled individual HAP emissions from all liquid organic material utilizied and cleanup materials utilized, in tons per year (sum of (k) for each HAP for the previous 12 months); and
   n. the rolling, 12-month summation of the controlled combined HAP emissions from all coatings and cleanup materials employed, in tons per year (sum of (l) for the previous 12 months).

3. The permittee shall maintain monthly production records for this emissions unit.

D. **Reporting Requirements**

1. The permittee shall submit semi-annual temperature deviation (excursion) reports that identify all 3-hour blocks of time during which the average temperature of the exhaust gases from the thermal incinerator does not comply with the temperature limitation specified above.

   If no deviations occurred during the previous six calendar months, the permittee shall submit a report which states that no deviations occurred during that six months. The reports shall be submitted by January 30 and July 30 and cover the previous six calendar months (July through December and January through June, respectively).

2. The permittee shall submit semi-annual deviation (excursion) reports which show an exceedance of the individual and combined HAP emission limits based on a rolling, 12-month summation.

   If no deviations occurred during the previous 6 calendar months, the permittee shall submit a report which states that no deviations occurred during that 6 months. The reports shall be submitted by January 30 and July 30 and cover the previous 6 calendar months (July through December and January through June, respectively).

3. The permittee shall submit an annual report which summarizes the individual and total HAP emissions from this facility for the calendar year. This report shall be submitted by January 30 of each year.

E. **Testing Requirements**

1. Compliance with OAC rule 3745-17-07(B)(1) shall be demonstrated by visible emissions observations performed in accordance with 40 CFR 60, Appendix A, Method 9, and the procedures outlined in OAC rule 3745-17-03(B)(3).

2. Emissions Limitation:
Organic compound (OC) emissions shall not exceed 7.36 pounds per day (lb/day) and 1.34 tons per year (TPY).

Applicable Compliance Method:
The emissions were calculated by taking the emissions rate, 147.15 lbs/day (provided by the facility in PTI 14-04191, issued on 12/5/96), times 1- the control efficiency of the thermal oxidizer (95%).

147.15 lbs of OC/day x (1-.95) = 7.36 lbs of OC/day.

The annual emissions were calculated using the following equation:

7.36 lbs of OC/day x 365 days/year x ton/2000 lbs = 1.34 TPY OC.

3. Emissions Limitation:
Particulate emissions (PE) and emissions of Particulate Matter 10 microns or less in diameter (PM10) shall not exceed 4.0 lb/day and 0.73 TPY

Applicable Compliance Method:
The emissions were calculated by using the following equation 200 lbs of solids/batch x 2 batches/day x 20 lbs of PE/PM10/ton of solids x ton/2000 lbs = 4.0 lbs PE/PM10/day. The emission factor is taken from AP-42, Fifth Edition, Chapter 6.4, Paint and Varnish (1/95).

The annual emissions were calculated using the following equation:

4.0 lbs of PE/PM10/day x 365 days/year x ton/2000 lbs = 0.73 TPY PE/PM10.

4. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of this permit to operate.

b. The emission testing shall be conducted to demonstrate compliance with the 95% overall control efficiency for OC.

c. The test method(s) which must be employed to demonstrate compliance with the overall control efficiency limitation for the allowable mass emission rate are specified below. The capture efficiency shall be determined using Methods 204 through 204F as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10 or the approved alternative test protocol approved on 10/25/95. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and theirtotal concentration, and on a consideration of the potential presence of interfering gases.
d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

F. **Miscellaneous Requirements**

1. None