

Capital Resins Corporation
PTI 01-7449
Core Coating Mixer (P023)

ADDITIONAL TERMS AND CONDITIONS

A. Operational Restrictions

1. The permittee shall install and operate a dust collector to achieve 90% capture of dust. The dust collector shall be operated within a pressure drop of 2 to 10 inches water column whenever solids are added.
2. The permittee shall conduct the solvent charging and solids mixing operations with the hatch closed.
3. This emissions unit shall be restricted to 12 batches per day.

B. Monitoring and Recordkeeping Requirements

1. If the recipe for the batch is the same as what was indicated in the application, the permittee shall record on a daily basis the following information:
 - a. the number of batches completed,
 - b. any hazardous air pollutants (HAPs) employed in this emissions unit.
2. If the recipe for the batch is not the same as what was indicated in the application and there is not an increase to the OC emission limit, the permittee shall record on a per batch basis the following information:
 - a. The date and time of the batch,
 - b. All organic compounds (OC) employed in the batch,
 - c. The amount of OC emissions for each component used (see table in D.1.b) and for each step of the process (per the Batch ACT equations and formulation data),
 - d. the total OC emissions for the batch, i.e., the summation of all OC pollutants and all steps of the process (per the Batch ACT equations and formulation data), and
 - e. any hazardous air pollutants (HAPs) employed in this emissions unit.
3. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

C. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all the periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office) within 30 days of the excursion.
2. The permittee shall notify the Director (the appropriate Ohio EPA District Office) in writing of any daily record showing the use of a HAP in this emissions unit or any exceedances of the 12 batch per day limit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the occurrence.
3. If the recipe for the batch is not the same as what was indicated in the application, the permittee shall submit monthly reports which identify any exceedances of the 6.4 lb OC/batch limitation, the cause for the exceedance, as well as corrective actions that were taken to achieve compliance. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office) within 30 days of the occurrence.
4. The permittee shall notify the Director (appropriate District Office) of any addition to, substitution of, or reformulation of batch mix or recipe in this emissions unit. The notification shall be in writing and shall be submitted to the Director at least 30 days prior to any addition to, substitution of, or reformulation.

D. Compliance Determination

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

(a) Emission Limitation

0.06 lb particulate/batch; 0.26 ton particulate/year

Applicable Compliance Method

The following equation calculates the batch emission rate based on maximum process weight rate:

0.25 lb dust/ton solid(SCC 3-05-016-14) * 2.0 ton solids/batch * 1 batch/2 hr * (1-0.9 capture)= 0.025 lb fugitive PM/hr
2,000 cfm * 0.002 gr/dscf * 1 lb/7000 gr * 60 min/hr = 0.03 lb controlled PM/hr

The following equation calculates the annual emission rate:

$$0.06 \text{ lbs PM/hr} * 8760 \text{ hrs/yr} * 1 \text{ ton}/2,000 = 0.26 \text{ ton PM/yr}$$

- (b) Emission Limitation
6.37 lb organic compounds/batch; 14.0 tons organic compound/yr

Applicable Compliance Method

The following table summarizes emissions calculated during each of three mixing steps using confidential formulation data in the Batch ACT equations during a 120 minute cycle:

	(lbs/batch)			
	<u>Isoproyl</u>	<u>Acetone</u>	<u>Naptha</u>	<u>Diesel</u>
Charging	1.08	2.11	0.011	0.017
Mixing	0.08	0.16	5.7E-04	7.4E-04
Toting	0.97	1.97	6.9E-03	8.9E-03
Total	2.13	4.25	1.8E-02	2.7E-02

The following equation calculates the maximum hourly emission rate:

$$2.13 \text{ lbs IPA/batch} + 4.24 \text{ lbs Acetone/batch} + .018 \text{ lbs Naptha/batch} + .027 \text{ lbs Diesel/batch} = 6.42 \text{ lbs OC/batch}$$

The following equation calculates the annual emission rate:

$$6.42 \text{ lbs OC/batch} * 1 \text{ batch}/2 \text{ hours} * 8760 \text{ hours/year} * 1 \text{ ton}/2,000 \text{ lbs} = 14.06 \text{ tons OC/yr}$$

E. Miscellaneous Requirements

1. This permit allows the use of materials specified by the permittee in the PTI application. In conjunction with the best available technology requirements of OAC rule 3745-31-05, the emission limitation(s) specified in this permit were established based on material formulation data and the design parameters of the emissions unit's exhaust system, as specified in the application.

Compliance with the Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the screen3 model and a comparison of the predicted 1 hour maximum ground-level concentration to the MAGLC. The following summarizes the results of the modeling for each

pollutant:

Pollutant: Acetone

TLV (ug/m3):1,188,000

Maximum Hourly Emission Rate (lbs/hr):2.1

**Predicted 1 Hour Maximum Ground-Level Concentration at the
Fenceline (ug/m3):592**

**Maximum Acceptable Ground-Level Concentration (MAGLC)
(ug/m3):28,286**

Any of the following changes may be deemed a "modification" to the emissions unit and, as such, prior notification to and approval from the appropriate Ohio EPA District Office are required, including the possible issuance of modifications to this PTI:

- (a) Any change to the emission unit 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 specified in the above table.
- (b) Any change to the emissions unit or its exhaust parameters (e.g., increased emission rate, reduction of exhaust gas flow rate, and decreased stack height) that would result in an exceedance of any MAGLC specified in the above table.
- (c) Any change to the emissions unit or its method of operation that would either require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01.