

A. Applicable Emission Limitations and/or Control Requirements

1. On any day that no photochemically reactive materials [as defined in OAC rule 3745-21-01(C)(5)] are employed in emissions unit P021, the organic compound (OC) emissions shall not exceed 7.1* pounds per hour and 170.2* pounds per day.

* The hourly and daily OC emission limits are based on the maximum capacity of the equipment and thus, no record-keeping is required.

2. On any day during which a photochemically reactive material is employed in emissions unit P021, the OC emissions shall not exceed 7.1* pounds per hour and 40 pounds per day.

* The hourly emission limit is based on the maximum capacity of the equipment and thus, no record-keeping is required.

3. The annual OC emissions from emissions unit P021 shall not exceed 14.8 tons per year.

B. Operational Restrictions

1. The maximum annual production rate for emissions unit P021 shall not exceed 75,000,000 cans per year.
2. On any day during which photochemically reactive materials are employed in emissions unit P021, the maximum production rate for emissions unit P021 shall not exceed 101,500 cans per day.

C. Monitoring and Recordkeeping Requirements

1. The permittee shall collect and record the following information for each calendar month for emissions unit P021:
 - a. the company identification for each material filled and the number of cans filled for that material; and,
 - b. the total number of cans filled in this emissions unit.

These records shall be summarized at the end of each calendar year.

2. On any day during which a photochemically reactive material is employed, the permittee shall collect and record the following information for emissions unit P021:
 - a. the company identification for each material filled and the number of cans filled for that material during that day; and,
 - b. the total number of cans filled in this emissions unit during that day.
3. Each record of any monitoring data, testing data and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by this permit. Such records may be maintained in computerized form.

D. Reporting Requirements

1. The permittee shall submit required reports in the following manner:
 - a. reports of any required monitoring and/or recordkeeping information shall be submitted to the Hamilton County Dept. of Env. Services; and,
 - b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Hamilton County Dept. of Env. Services. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly i.e., by January 30, April 30, July 30, and October 30 of each year and shall cover the previous calendar quarters. (These

quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06).

2. The permittee shall submit deviation (excursion) reports which include the following information:

For the days during which a photochemically reactive material was employed, an identification of each day during which the can production exceeded the 101,500 cans per day production limit and the actual can production for each such day.

3. The permittee shall submit annual reports which shall include the annual can production for that calendar year. These reports shall be submitted by January 31 of each calendar year and shall cover the previous calendar year.

E. Compliance Methods/Testing Requirements

1. Compliance with the production limitations in Additional Special Terms and Conditions B.1 and B.2 shall be demonstrated by recordkeeping in Additional Special Terms and Conditions C.1 and C.2.
2. Compliance with the daily emissions limit in Additional Special Terms and Conditions A.2 and the annual emissions limit in A.3 shall be demonstrated by recordkeeping in Additional Special Terms and Conditions C.1 and C.2 and the emissions factor of 0.394 pound of OC emissions per 1000 cans produced.

F. Miscellaneous Requirements

1. This permit allows the use of the coatings and cleanup materials specified by the permittee in the application for PTI number 14-4589. In conjunction with the best available technology requirements of OAC rule 3745-31-05, the OC emission limitation(s) specified in this permit was (were) established in accordance with the Ohio EPA's "Air Toxics Policy" and is (are) based on both the coating and cleanup 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: Toluene

TLV (ug/m3): 4476.19
Maximum Hourly Emission Rate (lbs/hr): 1.84
Predicted 1 Hour Maximum Ground-Level Concentration at the Fenceline (ug/m3): 581.2
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 4476.19

Any of the following changes may be deemed a "modification" to the emissions unit and, as such, prior notification to and approval from the Hamilton County Dept. of Env. Services are required, including the possible issuance of modifications to PTI number 14-4589 and the operating permit:

- a. any changes in the composition of the coatings or cleanup materials, or the use of new coatings or cleanup 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 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;
- d. any change in the composition of the coatings or cleanup materials, or use of new coatings or cleanup materials, that would result in the emission of any of the exempted organic compounds included in the definition of "VOC" [OAC rule 3745-21-01(B)(6)]; and,
- e. any change in the composition of the coatings or

cleanup materials, or use of new coatings or cleanup materials, that would result in an increase in emissions of any "Hazardous Air Pollutants" (HAPS) as defined in OAC rule 3745-77-01(V).

Permit Narrative
PTI 14-4589

Bondo / Mar-Hyde Corporation
4677 Devitt Drive
Cincinnati, OH 45246

Premise Number: 1409000340

Bondo / Mar-Hyde Corporation manufactures paints and fills aerosol spray cans with paints. The permittee proposes to install a Rotary Aerosol Can Filling Line (P021).

The applicable regulations are 3745-31-05, 3745-15-07, 3745-21-07(G).

The predicted actual OC emissions are 7.38 TPY and the allowable OC emissions are 14.8 TPY. The maximum uncontrolled OC emissions, in the absence of any production limits, are 31.1 TPY. The cleanup emissions are included in a separate emissions unit called "facility wide cleanup".

A permit to install should be issued as the emissions unit will be in compliance with the applicable regulations.

BAT is satisfied by emission limits, production limits, using valve fill for propellant charging and compliance with the Air Toxics Policy.

The permit fee is: P021 \$800 (based on 20,808 lbs/hr)
Total permit fee = \$800.

Ajay Bahri
July 13, 1998

Toxic Screening Analysis

A toxic screening analysis was conducted for emissions unit P021. The screening was conducted for all toxics in Sun Yellow which has the maximum VOCs and also for the propellant.

All toxics in Sun Yellow

The maximum emissions rate from filling paint in cans
= 0.102 (lb/1000 cans) * 0.3 (1000cans/min) * 60 min/hr * 1/1000
= 1.84 lbs OC/hr.

The emissions are fugitive and were modeled as a volume source. The following are the building dimensions:
Building length = 200 ft = 60.96 m
Building width = 125 ft = 38.1 m
Building height = 25 ft = 7.62 m
Distance to fence-line = 42 ft = 12.8 m

The following are the values used for modeling:
Emissions rate = 1.84 lbs/hr = 0.232 g/s
Source release height = Bldg. height/2 = 3.81 m
Initial lateral dimension = Bldg. length / 4.3 = 14.177 m
Initial vertical dimension = Bldg. height / 2.15 = 3.544 m
Distance to fence-line = 12.8 m

The screening analysis gives a maximum ground level concentration of 581.2 $\mu\text{g}/\text{m}^3$ at 32 m.

Toxic	TLV mg/m ³	MAGLC TLV*1000/42 $\mu\text{g}/\text{m}^3$	Screen Predicted Conc. $\mu\text{g}/\text{m}^3$	Screening Result
MEK	590	14047.62	581.2	Pass
Toluene	188	4476.19	581.2	Pass
Xylene	434	10333.33	581.2	Pass
Acetone	1188	28285.71	581.2	Pass

As the maximum ground level concentration is less than (MAGLC based on TLV/42) for all toxics, the emissions unit passes a toxic screening analysis for propellant emissions and no further modeling is required.

Propellant

The facility uses propane, isobutane and dimethyl ether as propellant. Butane has the lowest TLV and the emissions were

modeled as all butane. The emissions are fugitive and were modeled as a volume source. The following are the building dimensions:

Building length = 22.5 ft = 6.86 m
Building width = 12.5 ft = 3.81 m
Building height = 9.5 ft = 2.9 m
Distance to fence-line = 52 ft = 15.8 m

The following are the values used for modeling:

Emissions rate = 5.26 lbs/hr =	0.663 g/s
Source release height = Bldg. height/2 =	1.45 m
Initial lateral dimension = Bldg. length / 4.3 =	1.502 m
Initial vertical dimension = Bldg. height / 2.15 =	1.349 m
Distance to fence-line =	15.8 m

The screening analysis gives a maximum ground level concentration of 21730 $\mu\text{g}/\text{m}^3$ at 16 m.

Butane has a TLV of 1900 mg/m^3 . MAGLC (based on TLV/42) = 45238.1 $\mu\text{g}/\text{m}^3$. As the maximum ground level concentration is less than MAGLC based on TLV/42, the emissions unit passes a toxic screening analysis for propellant emissions and no further modeling is required.

Ajay Bahri
July 13, 1998