

A. Applicable Emission Limitations and/or Control Requirements

1. The organic compound (OC) emissions from emissions unit P001 shall not exceed 75 pounds per day and 8 tons per year.
2. The particulate (PM) and PM10 emissions from emissions unit P001 shall not exceed 50 pounds per day and 4.5 tons per year.
3. Visible particulate emissions from emissions unit P001 shall not exceed 20% percent opacity, as a three-minute average, except as specified by rule.
4. The OC emissions from emissions unit P002 shall not exceed 75 pounds per day and 9 tons per year.
5. The OC emissions from emissions unit P003 shall not exceed 8 pounds per hour, 40 pounds per day and 6 tons per year.
6. The potential emissions [as defined by OAC 3745-77-01(BB)] of Hazardous Air Pollutants (HAPs) as identified in Section 112(b) of Title III of the Clean Air Act from this facility shall be less than 10 TPY as a rolling, 12-month summation for any single HAP and 25 TPY as a rolling, 12-month summation for any combination of HAPs.

B. Operational Restrictions

1. The amount of liquid organic material used in emissions unit P001 shall not exceed 10000 pounds per day and 1066 tons per year.
2. The amount of pigment used in emissions unit P001 shall not exceed 5000 pounds per day and 450 tons per year.
3. The amount of liquid organic material used in emissions unit P002 shall not exceed 10000 pounds per day and 1200 tons per year.
4. The amount of liquid organic material used in emissions unit P003 shall not exceed 1067 pounds per hour, 5333 pounds per day and 800 tons per year.

TBA Graphics, Inc.

PTI 14-4505

Page -2-

C. Monitoring and Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for the entire facility:
 - a. The name and identification number of each material used.
 - b. The amount of material used, in pounds.
 - c. The individual Hazardous Air Pollutant (HAP) content for each HAP in weight percent.
 - d. The total combined HAP content in weight percent.
 - e. The monthly emissions of each individual HAP in pounds calculated as follows:
For pigments, monthly emissions (in pounds) = sum of [(b)*(c)*20/2000] for each material containing that individual HAP.
For liquid organic material, monthly emissions (in pounds) = sum of [(b)*(c)*15/2000] for each material containing that individual HAP.
 - f. The total monthly emissions of all HAPs in pounds or tons.
 - g. The cumulative monthly total for the first twelve months following the issuance of this permit to install and the updated rolling, 12-month summation thereafter of the individual HAP emissions for each HAP from all materials used.
 - h. The cumulative monthly total for the first twelve months following the issuance of this permit to install and the updated rolling, 12-month summation thereafter of the combined HAP emissions for all HAPs from all material used.

A listing of the Hazardous Air Pollutants (HAPs) can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. This information does not have to be kept on an emissions unit - by - emissions unit basis.

2. The permittee shall maintain daily records for emissions unit P001 which shall include the following information:
 - a. The amount of organic solvent used, in pounds.

- b. The daily OC emissions, in pounds per day (the emissions shall be calculated based on an emission factor of 30 pounds of OC emissions per ton of organic solvent used).
- c. The amount of pigments used, in pounds.
- d. The particulate / PM₁₀ emissions, in pounds per day (the emissions shall be calculated based on an emission factor of 20 pounds of particulate / PM₁₀ emissions per ton of pigment used).

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

3. The permittee shall maintain daily records for emissions unit P002 which shall include the following information:
 - a. The amount of organic solvent used, in pounds.
 - b. The daily OC emissions, in pounds per day (the emissions shall be calculated based on an emission factor of 30 pounds of OC emissions per ton of organic solvent used).

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

4. The permittee shall maintain daily records for emissions unit P003 which shall include the following information:
 - a. The amount of organic solvent used, in pounds.
 - b. The daily OC emissions, in pounds per day (the emissions shall be calculated based on an emission factor of 30 pounds of OC emissions per ton of organic solvent used).
 - c. The number of hours the emissions unit was in operation.
 - d. The average hourly organic solvent usage calculated by dividing (a) by (c).
 - e. The average hourly OC emissions calculated by dividing (b) by (c).

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

5. 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, unless otherwise specified in this permit. Support information shall include, but not be 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 record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency; 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 record keeping 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 appropriate Ohio EPA District Office or local air agency.

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 for emissions units P001 and P002 which identify any exceedances of the daily usage and/or emissions limits. These reports shall include copies of any daily records showing exceedances and the steps taken by the permittee to avoid such exceedances in the future.
3. The permittee shall submit deviation (excursion) reports for emissions unit P003 which include the following information:
 - a. An identification of each day during which the average hourly organic compound emissions from the coatings and cleanup materials exceeded 8 pounds per hour, and the actual average hourly organic compound emissions for each such day .
 - b. An identification of each day during which the organic compound emissions from the coatings and cleanup materials exceeded 40 pounds per day, and the actual organic compound emissions for each such day.
4. The permittee shall submit annual reports for each of the emissions units P001, P002 and P003 which specify the total organic compound emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 30 of each year.
5. The permittee shall notify the Director (the appropriate Ohio EPA District Office or the local air agency) of any exceedance of the HAP emissions limitations set forth in this Permit to Install. The permittee shall submit annual reports which identify all exceedances of these limitations, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 30 of each year. If no exceedances occurred during the reporting period then a report is required stating so.

E. Compliance Methods/Testing Requirements

1. Compliance with the emissions limitations in Term A.1 and A.2 and usage limitations in Terms B.1 and B.2 shall be demonstrated by the recordkeeping in Term C.2.

2. Compliance with the visible emissions limitation in Term A.3 shall be demonstrated by Method 9, 40 CFR Part 60 Appendix A.
3. Compliance with the emissions limitations in Term A.4 and usage limitation in Term B.3 shall be demonstrated by the recordkeeping in Term C.3.
4. Compliance with the emissions limitations in Term A.5 and usage limitation in Term B.4 shall be demonstrated by the recordkeeping in Term C.4.
5. Compliance with the HAP emissions limitations in Term A.6 shall be demonstrated by the recordkeeping in Term C.1.

F. Miscellaneous Requirements

1. If probable cause exist indicating any emissions unit is causing or contributing to a nuisance in violation of Ohio Administrative Code rule 3475-15-07, the owner or operator of this emissions unit shall be required to submit and implement a control program which will bring the emissions unit into compliance.
2. The following terms in this permit are federally enforceable:

Term A.6, C.1 and D.5.

PERMIT REVIEW NARRATIVE
PTI 14-4505

TBA Graphics, Inc.
9070 Gold Park Drive
Hamilton, OH 45011

Facility ID: 1409040872

The facility manufactures fountain solutions, washes and aqueous coatings. The facility has a Vat and Pump Station #1 (emissions unit P001), Pump Station #2 (emissions unit P002) and Pump Station #3 (emissions unit P003). The emissions are organic compounds (OC) and particulate (PM only from emissions unit P001).

The applicable regulations are Ohio Administrative (OAC) 3745-31-05, 3745-15-07, 3745-17-07, 3745-17-08 and 3745-21-07(G). OAC 3745-31-05 is the Best Available Technology (BAT) requirement for all new emissions units. OAC 3745-15-07 prohibits air pollution nuisances. OAC 3745-17-07 applies to visible particulate emissions. OAC 3745-17-08 applies to emissions of fugitive dust. OAC 3745-21-07(G) applies to organic compound emissions.

The allowable emissions from emissions unit P001 are 75 lbs OC/day, 8 TPY OC, 50 lbs PM/day and 4.5 TPY PM. The allowable emissions from emissions unit P002 are 75 lbs OC/day and 9 TPY OC. The allowable emissions from emissions unit P003 are 8 lbs OC/hr, 40 lbs OC/day and 6 TPY OC.

BAT is satisfied by use of covers, usage and emissions limits and compliance with the air toxics policy for emissions units P001 thru P003. Additionally, use of PRMs is prohibited in emissions units P001 and P002.

A preliminary permit to install should be issued as the facility is in compliance with the applicable regulations.

The permit fee is P001 \$200.00 (minimum PWR)
P002 \$200.00 (minimum PWR)
P003 \$800.00 (based on 1236 lbs/hr, fee
doubled)

Total fee = \$1200.00

Ajay Bahri
April 13, 1998

Synthetic Minor Determination
TBA Graphics, Inc.
1409040872
PTI 14-4505

A. Emissions Units Description

This Permit to Install (PTI 14-4505) covers three emissions units - Vat and Pump Station #1 (emissions unit P001), Pump Station #2 (emissions unit) and Pump Station #3 (emissions unit P003).

B. Facility Emissions and Attainment Status

TBA Graphics, Inc. is a major stationary source based on potential Hazardous Air Pollutants (HAPs) emissions. This permit to install (PTI) will incorporate federally enforceable limitations in the PTI limiting HAP emissions to less than 10 TPY for any single HAP as a rolling, 12-month summation and less than 25 TPY for combined HAPs as a rolling, 12-month summation.

C. Source Emissions

Potential emissions were calculated based on maximum capacity and 8760 hrs/yr of operation. The potential emissions from these emissions units, in the absence of this federally enforceable PTI, is at 69.36 TPY for combined HAPs. The emissions limitations outlined in this PTI limit HAP emissions to less than 10 TPY of any single HAP as a rolling, 12-month summation and less than 25 TPY of combined HAPs as a rolling, 12-month summation. The permittee will record coating usages and submit semi-annual reports as described in the PTI's terms and conditions to ensure compliance with the emissions limitations.

D. Conclusion

The terms and conditions in this PTI limit the permittee's potential HAP emissions to less than 10 TPY for any single HAP as a rolling, 12-month summation and less than 25 TPY of combined HAPs as a rolling, 12-month summation. The permittee will maintain coating usage records and submit reports as outlined in the terms and conditions for all emissions units to demonstrate compliance with the emissions limitations. Because the potential HAP emissions are less than 10 TPY for any single HAP as a rolling, 12-month summation and less than 25 TPY of combined HAPs as a rolling, 12-month summation, the permittee will not be subject to the requirements of Title V permitting.

Prepared by: Ajay Bahri
Date prepared: April 13, 1998

Toxic Screening Analysis

Emissions unit P001

Emissions unit P001 is used to make fountain solution and alcohol replacement. The worst case pollutant is 2-butoxy ethanol and is used at a maximum of 35%. A toxic screening analysis was done assuming a max. hourly emissions rate of 4.69 lbs/hr (based on 75 lbs/day max., 16 hr day max.) and 35% 2-butoxy ethanol.

$$\begin{aligned} \text{Emissions rate} &= 0.35 * 4.69 = 1.64 \text{ lbs/hr} = \\ &0.2066 \text{ g/sec} \end{aligned}$$

$$\begin{aligned} \text{Source release height} &= \text{building height} = 14 \text{ feet} = \\ &4.27 \text{ m} \end{aligned}$$

$$\begin{aligned} \text{Initial lateral dimension} &= \text{building width}/4.3 = 66 \text{ ft} / 4.3 = \\ 20.12 \text{ m} / 4.3 &= 4.68 \text{ m} \end{aligned}$$

$$\begin{aligned} \text{Initial vertical dimension} &= \text{building height}/2.15 = 14 \text{ ft} / 2.15 \\ = 4.27 \text{ m} / 2.15 &= 1.99 \text{ m} \end{aligned}$$

$$\begin{aligned} \text{MAGLC based on TLV/42} &= 2880.952 \text{ } \mu\text{g}/\text{m}^3 \\ \text{Maximum ground concentration from SCREEN3} &= 1318 \text{ } \mu\text{g}/\text{m}^3 \end{aligned}$$

As the maximum ground level concentration is less than MAGLC, the emissions unit passes a toxic screening analysis.

Emissions units P002 & P003

Emissions units P002 & P003 is used to make blanket wash / roller wash. The worst case pollutant is trimethyl benzene and is used at a maximum of 15% of 60% = 9%. A toxic screening analysis was done assuming a max. hourly emissions rate of 4.69 lbs/hr (based on 75 lbs/day max., 16 hr day max.) for emissions unit P002 and 8 lbs/hr for emissions unit P003 and 9% trimethyl benzene.

$$\begin{aligned} \text{Emissions rate} &= 0.09 * (4.69+8) = 1.142 \text{ lbs/hr} = \\ &0.1439 \text{ g/sec} \end{aligned}$$

$$\begin{aligned} \text{Source release height} &= \text{building height} = 14 \text{ feet} = \\ &4.27 \text{ m} \end{aligned}$$

$$\begin{aligned} \text{Initial lateral dimension} &= \text{building width}/4.3 = 66 \text{ ft} / 4.3 = \\ 20.12 \text{ m} / 4.3 &= 4.68 \text{ m} \end{aligned}$$

$$\begin{aligned} \text{Initial vertical dimension} &= \text{building height}/2.15 = 14 \text{ ft} / 2.15 \\ = 4.27 \text{ m} / 2.15 &= 1.99 \text{ m} \end{aligned}$$

$$\begin{aligned} \text{MAGLC based on TLV/42} &= 2928.572 \text{ } \mu\text{g}/\text{m}^3 \\ \text{Maximum ground concentration from SCREEN3} &= 918.1 \text{ } \mu\text{g}/\text{m}^3 \end{aligned}$$

As the maximum ground level concentration is less than MAGLC, the emissions units pass a toxic screening analysis.