

## **INTRODUCTION**

PTI #03-13100 serves to permit three new adhesive spray areas (emissions units R014, R015 and R016) at Findlay Industries, Inc. - Plant One, which is a major facility for Title V. Solvent-based adhesive will be applied to pre-molded trim panels, automotive fiber board, and cover material in each spray booth.

Air toxics modeling was performed on emissions unit R014. The modeling was based on the worst-case assumption that all organic compound emissions from the adhesive spray area is hexane. Modeling was not performed on emissions unit R015 and R016 because the pollutants emitted do not have a listed Threshold Limit Value (TLV) exceeding one (1) ton per year, as listed in the 1996 edition of the American Conference of Governmental Industrial Hygienists (ACGIH) booklet.

### **A. APPLICABLE EMISSION LIMITATIONS AND/OR CONTROL REQUIREMENTS**

1. The visible emissions (VE's) from emissions units R014, R015, and R016 shall not exceed 0% opacity, as a six-minute average.

### **B. OPERATIONAL RESTRICTIONS**

1. Emissions units R014, R015, and R016 shall employ only adhesive coatings which are nonphotochemically reactive materials, as defined by OAC Rule 3745-21-01 (C)(5). This determination shall be based on the actual formulation of the adhesives and cleanup materials after any final in-plant reducing or thinning and prior to application of the product.
2. The organic compound (OC) content of each adhesive employed in emissions units R014 and R016 shall not exceed 5.05 pounds of OC per gallon.
3. The organic compound (OC) content of each adhesive employed in emissions unit R015 shall not exceed 0.40 pounds of OC per gallon.
4. The OC content of each cleanup material employed in emissions units R014, R015, and R016 shall not exceed 6.44 pounds of OC per gallon. In addition, the permittee shall be limited to 1.00 gallons of cleanup per month (12 gallons of cleanup per year) for each adhesive spray area.
5. This permit allows for the use of the adhesive specified by the permittee in the application for PTI number 03-13100. In conjunction with BAT requirements of OAC 3745-31-05, the hexane emission limitations (all

emissions are assumed to be hexane) specified in this permit were established in accordance with Ohio EPA's "Air Toxics Policy" and are based on both the adhesive formulation data and the design parameters of the emissions unit's exhaust systems, as specified in the application. Compliance with the Ohio EPA's "Air Toxics Policy" was demonstrated for the pollutant based on the Screen3 model and a comparison of the predicted 1-hour maximum ground-level concentration to the maximum allowable ground-level concentration ("MAGLC"). The following summarizes the results of the modeling for this pollutant:

Emissions Unit: R014  
Pollutant: Hexane  
TLV (mg/m<sup>3</sup>): 176  
Max. Hourly Emission Rate (lbs/hr): 5.00  
Predicted 1-Hour Max. Ground-Level  
Concentration at Fenceline (ug/m<sup>3</sup>): 993.40  
MAGLC (ug/m<sup>3</sup>): 4,190.00

Any of the following changes may be deemed a "modification" to an emissions unit and, as such, prior notification to and approval from the Ohio EPA, Northwest District Office, Division of Air Pollution Control, are required:

- a. Any change in the composition of the adhesives or use of new adhesives that would result in the emissions of a more toxic compound that was previously emitted.
- b. Any change in the composition of the adhesives or use of new adhesives that would result in the emissions of any organic compound excluded from the definition of "VOC" in OAC 3745-21-01 (B)(6).
- c. Any change to the emissions unit or its exhaust characteristics that would result in an exceedances of the Maximum Acceptable Ground-Level Concentration (MAGLC) of air toxics beyond plant property lines.
- d. Any change in the composition of the coatings/cleanup materials or use of new coatings/cleanup materials that would result in an increase in emissions of any "Hazardous Air Pollutants" (HAPs) as defined in OAC 3745-77-01 (V).
- e. Any change in an emissions unit or its method of operation that would either require an increase in the emission limitations established by this permit or would otherwise be considered a "modification" as defined in OAC 3745-31-01 (J).

**C. MONITORING/RECORD KEEPING REQUIREMENTS**

1. The permittee shall maintain daily records that list the following information for emissions units R014, R015, and R016:
  - a. The company identification of each adhesive employed.
  - b. An indication of whether or not each adhesive is a photochemically reactive material.
2. The permittee shall collect and record the following information (for emissions units R014, R015, and R016) on a monthly basis for the purpose of determining annual OC emissions:
  - a. The company identification of each cleanup material employed.
  - b. The number of gallons of each cleanup material employed.
  - c. The OC content of each cleanup material, in pounds per gallon.
  - d. The total OC emissions from all coating and cleanup materials, in pounds or tons.
3. All records shall be retained in the permittee's files for a period of five years and shall be made available to the Northwest District Office, Division of Air Pollution Control, for review during normal business hours.

**D. REPORTING REQUIREMENTS**

1. The permittee shall submit quarterly written reports summarizing the following:
  - a. any deviations from emission limitations and operational restrictions that have been detected by 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 that have been or will be taken.

If no deviations occurred during the calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during

the quarter.

The reports shall be submitted by January 31, April 30, July 31, and October 31 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). All reports shall be submitted to the Northwest District Office.

2. The permittee shall submit annual reports which summarize the total amount of OC emissions, in tons per year. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

## **E. TESTING REQUIREMENTS**

1. Compliance with the organic compound and particulate matter emission limitations outlined in this permit shall be determined in accordance with the following method(s):

- a. Emission Limitation - adhesive- for emissions unit R014 - 110.30 lbs OC/day; for emissions unit R015 - 1.92 lbs OC/day; for emissions unit R016 - 12.12 lbs OC/day

Applicable Compliance Method - These daily limits represent each unit's "maximum capacity" i.e., its potential to emit based on the maximum hourly coating application rate. Although this permit does not require periodic record keeping to verify compliance with these limits, the permittee shall maintain adequate records in the facility's files to verify that each emissions unit's maximum capacity has not been increased.

- b. Emission Limitation - adhesive - for emissions unit R014 - 20.13 tons OC/year; for emissions unit R015 - 0.35 tons OC/year; for emissions unit R016 - 2.21 tons OC/year

Applicable Compliance Method - The record keeping requirements in section C.2 shall be used to demonstrate compliance with the emission limitation.

- c. Emission Limitation - cleanup - 6.44 lbs OC/month and 0.40 tons OC/year (for each emissions unit)

Applicable Compliance Method - The record keeping requirements in section C.2 shall be used to demonstrate compliance with the emissions limitation.

- d. Emission Limitation - for emissions unit R014 - 1.68 lbs PE/day and 0.31 tons PE/year; for emissions unit R015 - 0.96 lbs PE/day and 0.18 tons PE/year; for emissions unit R016 - 0.24 lbs PE/day and 0.04 tons PE/year

Applicable Compliance Method - Compliance with the PE emissions shall be determined in accordance with the test method and procedures in OAC rule 3745-17-03 (B)(10). In the absence of Ohio EPA requiring such testing, the permittee may calculate actual PE emission rates for the unit utilizing the following equation for each coating employed:

$$E = A \times (1 - TE) \times (1 - CE)$$

where

E = actual particulate emission rate (pounds per day or pounds per year)

A = coating solids usage rate [gallons coating employed (gal/day or gal/year) x coating density x wt. % solids]

TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids employed.

CE = control efficiency of the control equipment (filters)

- e. Emission Limitation - 0% opacity as a six-minute average

Applicable Compliance Method - OAC rule 3745-17-03(B)(3)

Note: No term or condition specifying a method for demonstrating compliance with any emission limitation or other requirement of this permit shall preclude the use by any person of any credible evidence to establish compliance with or a violation of this permit, the Clean Air Act, or any implementing regulations or rules promulgated thereunder.

**F. MISCELLANEOUS REQUIREMENTS**

None