

Air Program Fact Sheet Plastics Parts Coating RACT

February 2017

What is the plastic parts coating RACT?

In order to reduce emissions of volatile organic compounds (VOCs) in areas of Wisconsin that cannot meet, or formerly could not meet, the national air quality standard for ozone, the Department of Natural Resources (DNR) issued rules for certain industrial categories that are called Reasonably Available Control Technology (RACT) rules. One of those is a RACT rule for plastic parts coating operations, detailed in s. NR 422.083, Wisconsin Administrative Code.

Plastic parts coating is defined as coating applied to any part made from a material "formed from resin through application of pressure or heat or both."

Applicability and Exemptions

This rule affects only those facilities that are major sources of VOC emissions from their "affected" plastic parts coating operations. For our purposes here, "affected" means operations not already regulated by another RACT rule.

How do you determine if portions of a plastic parts coating operation are already regulated by another RACT rule? If the facility has a permit and is already affected by a RACT rule, the following sections of the Wisconsin Administrative Code will be listed with the limits on the permit:

- sections NR 419.05, 419.06 or 419.08
- any section in chapters NR 420 and 421
- sections NR 422.05 to 422.08 or 422.085 to 422.17
- sections NR 423.03, 423.035, 423.04, 423.05, 424.04 or 424.05

A facility is considered a major source if Maximum Theoretical Emissions (MTE) of VOCs from the affected plastic parts coating operations are:

- greater than 25 tons per year (TPY) for facilities located in Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha counties; **or**
- greater than 100 TPY for facilities located in Kewaunee, Manitowoc or Sheboygan counties.

The MTE is the level of emissions that would be generated if the facility operated continuously at full capacity for the whole year, not taking into account emissions reductions from any control device installed.

The MTE calculations for VOCs from the affected plastic parts coating operations proceed as follows:

- 1) calculate total MTE of VOCs from the whole facility
- 2) calculate total MTE of VOCs regulated by an existing VOC RACT rule
- 3) subtract the amount in #2 from the amount in #1

The amount calculated in #3 must be greater than the applicability levels of 25 TPY or 100 TPY, depending on the location, for this rule to apply.

For assistance with calculating the MTE of VOCs for a facility, contact the Small Business Environmental Assistance Program (SBEAP) toll free at 855-889-3021 or email DNRSsmallBusiness@wi.gov. Staff can help go over calculations or send a fact sheet with some example calculations.

This rule also includes an exemption for plastic parts coating operations already regulated under:

- NR 422.095, 422.10, 422.11 or 422.125; or
- NR 422.09, 422.10 or 422.15, where plastic parts are attached to metal parts prior to coating.

Requirements

The emissions limits are listed by type of operation in Table 1 (see the next page). The compliance deadline has passed, so anyone affected by this rule must now be in compliance. Also, no facility may emit over 6,200 pounds of VOCs per year from the use of extreme performance coatings.

Whether a facility is exempt from the limits in the rule or not, some records must be maintained to demonstrate compliance to the DNR. If a facility is exempt based on MTEs of VOCs, records of those calculations must be kept. In this case, these are one-time records.

If a facility expands, which may or may not require a **construction permit**, MTE must be calculated to determine whether the facility is still exempt.

If the facility must meet emission limits, then records of the VOC content of **each** coating used, measured in pounds VOC per gallon excluding water, must be kept. Any records created must be maintained on site for five years.

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Table 1. Emission Limits

Activity	VOC Content (lb/gal)
Automotive/transportation	
• Interiors	
~ Baked: Prime/Non-clear Coats	3.8/4.1
~ Air dried: Prime/Non-clear Coats	3.5/4.9
• Exteriors	
~Baked	
▪ Prime Coats (elastomeric/non-e)	5.0/4.5
▪ Clear Coats	4.3
▪ Other Coatings	4.6
~ Air dried	
▪ Prime Coats (elastomeric/non-e)	5.5
▪ Clear Coats	4.5
▪ Other Coatings (red & black/other)	5.6/5.1
~ Specialty	
▪ Vacuum metalizing, texture basecoats	5.5
▪ Reflective agent, air bag cover, and soft coatings	5.9
▪ Antiglare/safety coating, vacuum metalizing and texture topcoat	6.4
▪ Head lamp lens coating	7.4
Business Machine	
• Prime Coats	2.9
• Other Non-clear Coats	2.9
• Specialty	
~ Electromagnetic interference/radio frequency interference (EMI/RFI); shield coatings	4.0
~ Soft Coverings	4.3
~ Resist coatings	5.9
~ Sensitizer coatings	7.1
Miscellaneous	
• Air cleaner covers	6.0
• Building exterior shutters, weather stripping, trim and molding	6.2
• Building interior molding & trim	2.5
• Cosmetic cases	
~ Opaque coatings	4.8
~ Other coatings	5.9
• Personal hygiene razors	
~ Soft coatings	5.5
~ Other coatings	6.2
• Signs	
~ Mask coatings	0.8
~ Opaque coatings	5.9
~ Other coatings	6.5
• Smoke detector covers	6.2