

(vvv) VOC Emissions from Surface Coating of Miscellaneous Plastic Parts and Products.

1. No person shall cause, let, permit, suffer, or allow the emissions of VOC from surface coating of miscellaneous plastic parts and products that does not fall under subparagraphs 2., 3., 4., 5., 6., 7., and/or 8. of this subsection to exceed:

(i) 2.3 pounds per gallon of coating, excluding water, delivered to a coating application system that applies a general one-component coating. If any coating delivered to the coating application system contains more than 2.3 pounds VOC per gallon, the solids equivalent limit shall be 3.35 pounds VOC per gallon of coating solids delivered to the coating application system.

(ii) 2.8 pounds per gallon of coating, excluding water, delivered to a coating application system that applies a military specification (1-pack) coating. If any coating delivered to the coating application system contains more than 2.8 pounds VOC per gallon, the solids equivalent limit shall be 4.52 pounds VOC per gallon of coating solids delivered to the coating application system.

(iii) 3.5 pounds per gallon of coating, excluding water, delivered to a coating application system that applies one or more of the following coatings: general multi-component; extreme-performance (2-pack) coating ; metallic coating; and military specification (2-pack) coating. If any coating delivered to the coating application system contains more than 3.5 pounds VOC per gallon, the solids equivalent limit shall be 6.67 pounds VOC per gallon of coating solids delivered to the coating application system.

(iv) 5.7 pounds per gallon of coating, excluding water, delivered to a coating application system that applies a multi-colored coating. If any coating delivered to the coating application system contains more than 5.7 pounds VOC per gallon, the solids equivalent limit shall be 25.3 pounds VOC per gallon of coating solids delivered to the coating application system.

(v) 6.3 pounds per gallon of coating, excluding water, delivered to a coating application system that applies a mold-seal coating. If any coating delivered to the coating application system contains more than 6.3 pounds VOC per gallon, the solids equivalent limit shall be 43.7 pounds VOC per gallon of coating solids delivered to the coating application system.

(vi) 6.7 pounds per gallon of coating, excluding water, delivered to a coating application system that applies an electric dissipating coating, shock-free coating, optical coating, or vacuum metalizing coating. If any coating delivered to the coating application system contains more than 6.7 pounds VOC per gallon, the solids equivalent limit shall be 74.7 pounds VOC per gallon of coating solids delivered to the coating application system.

2. No person shall cause, let, permit, suffer, or allow the emissions of VOC from surface coating of plastic parts of automobiles and trucks at a facility that is not an automobile or light-duty truck manufacturing facility using baked coatings for interior and exterior parts to exceed:

(i) 3.5 pounds per gallon of coating, excluding water, delivered to a coating application system that applies a non-flexible primer. If any non-flexible primer coating delivered to the coating application system contains more than 3.5 pounds VOC per gallon, the solids equivalent limit shall be 6.67 pounds VOC per gallon of coating solids delivered to the coating application system.

(ii) 4.0 pounds per gallon of coating, excluding water, delivered to a coating application system that applies a clear coat. If any clear coat coating delivered to the coating application system contains more than 4.0 pounds VOC per gallon, the solids equivalent limit shall be 8.76 pounds VOC per gallon of coating solids delivered to the coating application system.

(iii) 4.3 pounds per gallon of coating, excluding water, delivered to a coating application system that applies a base coat or non-base coat/clear coat. If any one of these coatings delivered to the coating application system contains more than 4.3 pounds VOC per gallon, the solids equivalent limit shall be 8.76 pounds VOC per gallon of coating solids delivered to the coating application system.

(iv) 4.5 pounds per gallon of coating, excluding water, delivered to a coating application system that applies a flexible primer. If any coating delivered to the coating application system contains more than 4.5 pounds VOC per gallon, the solids equivalent limit shall be 11.58 pounds VOC per gallon of coating solids delivered to the coating application system.

3. No person shall cause, let, permit, suffer, or allow the emissions of VOC from surface coating of plastic parts of automobiles and trucks at a facility that is not an automobile or light-duty truck manufacturing facility using air dried coatings for exterior parts to exceed:

(i) 4.0 pounds per gallon of coating, excluding water, delivered to a coating application system that applies a clear coat. If any coating delivered to the coating application system contains more than 4.0 pounds VOC per gallon, the solids equivalent limit shall be 11.58 pounds VOC per gallon of coating solids delivered to the coating application system.

(ii) 4.8 pounds per gallon of coating, excluding water, delivered to a coating application system that applies a primer. If any coating delivered to the coating application system contains more than 4.8 pounds VOC per gallon, the solids equivalent limit shall be 13.80 pounds VOC per gallon of coating solids delivered to the coating application system.

(iii) 4.0 pounds per gallon of coating, excluding water, delivered to a coating application system that applies a base coat or a non-basecoat/clear coat. If any coating delivered to the coating application system contains more than 4.0 pounds VOC per gallon, the solids equivalent limit shall be 13.4 pounds VOC per gallon of coating solids delivered to the coating application system.

4. No person shall cause, let, permit, suffer, or allow the emissions of VOC from surface coating of plastic parts of automobile and trucks at a facility that is not an automobile or light-duty truck manufacturing facility using air dried coatings for interior parts to exceed:

(i) 5.0 pounds per gallon of coating, excluding water, delivered to a coating application system that applies a coating. If any coating delivered to the coating application system contains more than 5.0 pounds VOC per gallon, the solids equivalent limit shall be 15.59 pounds VOC per gallon of coating solids delivered to the coating application system.

5. No person shall cause, let, permit, suffer, or allow the emissions of VOC from surface coating of plastic parts of automobile and trucks at a facility that is not an automobile or light-duty truck manufacturing facility using touchup and repair coatings to exceed:

(i) 5.2 pounds per gallon of coating, excluding water, delivered to a coating application system that applies a coating. If any coating delivered to the coating application system contains more

than 5.2 pounds VOC per gallon, the solids equivalent limit shall be 17.72 pounds VOC per gallon of coating solids delivered to the coating application system.

6. No person shall cause, let, permit, suffer, or allow the emissions of VOC from surface coating of plastic parts of business machines to exceed:

(i) 2.2 pounds per gallon of coating, excluding water, delivered to a coating application system that applies a fog coat. If any coating delivered to the coating application system contains more than 2.2 pounds VOC per gallon, the solids equivalent limit shall be 3.14 pounds VOC per gallon of coating solids delivered to the coating application system.

(ii) 2.9 pounds per gallon of coating, excluding water, delivered to a coating application system that applies one or more of the following coatings: primer, topcoat, texture coat, touchup and repair. If any coating delivered to the coating application system contains more than 2.9 pounds VOC per gallon, the solids equivalent limit shall be 4.80 pounds VOC per gallon of coating solids delivered to the coating application system.

7. No person shall cause, let, permit, suffer, or allow the emissions of VOC from surface coating of miscellaneous motor vehicle plastic parts and products at a facility that is not an automobile or light-duty truck manufacturing facility to exceed:

(i) 1.7 pounds per gallon of coating, excluding water, delivered to a coating application system that applies the following motor vehicle materials: gasket/gasket sealing material and bedliner.

(ii) 3.5 pounds per gallon of coating, excluding water, delivered to a coating application system that applies the following motor vehicle materials: cavity wax, sealer, deadener, underbody coating, trunk interior coating, and lubricating wax/compound.

8. No person shall cause, let, permit, suffer, or allow the emissions of VOC from surface coating of plastic parts of automobile and trucks at a facility that is not an automobile or light-duty truck manufacturing facility using red or black coatings to exceed 1.15 times the applicable limit in this subsection except in the case of touch-up and repair coatings in which the applicable limit shall apply.

9. Each owner or operator of a facility that coats plastic parts shall ensure that all coating application systems utilize one or more of the application techniques stated below:

(i) Electrostatic spray application;

(ii) High volume low pressure (HVLP) spraying;

(iii) Flow/curtain application;

(iv) Roll coating;

(v) Dip coat application including electrodeposition;

(vi) Airless spray;

(vii) Air-assisted airless spray; or

(viii) Other coating application methods that achieve transfer efficiency equivalent to HVLP or electrostatic spray application methods, as determined by the Director.

10. Each owner or operator of a facility that coats plastic parts shall comply with the following work practice standards:

(i) store all VOC-containing coatings, thinners, and coating-related waste materials in closed containers;

(ii) ensure that mixing and storage containers used for VOC-containing coatings, thinners, and coating-related waste materials are kept closed at all times except when depositing or removing these materials;

(iii) minimize spills of VOC-containing coatings, thinners, and coating-related waste materials; and

(iv) convey VOC-containing coatings, thinners, and coating-related waste materials from one location to another in closed containers or pipes.

11. Each owner or operator of a facility that coats plastic parts shall comply with the following housekeeping requirements for any affected cleaning operation:

(i) store all VOC-containing cleaning materials and used shop towels in closed containers;

(ii) ensure that storage containers used for VOC-containing cleaning materials are kept closed at all times except when depositing or removing these materials;

(iii) minimize spills of VOC-containing cleaning materials;

(iv) convey VOC-containing cleaning materials from one location to another in closed containers or pipes; and

(v) minimize VOC emission from cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

12. The VOC limits specified in this subsection do not apply to the following types of plastics coatings and/or coating operations:

(i) Touch-up and repair coatings;

(ii) Stencil coatings applied on clear or transparent substrates;

(iii) Clear or translucent coatings;

(iv) Coatings applied at a paint manufacturing facility while conducting performance tests on the coatings;

(v) Any individual coating category used in volumes less than 50 gallons in any one year, if substitute compliant coatings are not available, provided that the total usage of all such coatings does not exceed 200 gallons per year, per facility;

(vi) Reflective coating applied to highway cones;

(vii) Mask coatings that are less than 0.5 millimeter thick (dried) and the area coated is less than 25 square inches;

(viii) EMI/RFI shielding coatings; and

(ix) Heparin-benzalkonium chloride (HBAC)-containing coatings applied to medical devices, provided that the total usage of all such coatings does not exceed 100 gallons per year, per facility.

The recommended application methods and work practice standards specified in this subsection still apply.

13. Airbrush operations using five gallons or less per year of coating are exempt from the application technique requirements of this subsection but must comply with the VOC limits and work practices specified.

14. The VOC limits specified in this subsection do not apply to the coating of plastic parts of automobiles and trucks or the coating of plastic parts of business machines of the following types of coatings and/or coating operations:

(i) Texture coatings;

(ii) Vacuum metalizing coatings;

(iii) Gloss reducers;

(iv) Texture topcoats;

(v) Adhesion primers;

(vi) Electrostatic preparation coatings;

(vii) Resist coatings; and

(viii) Stencil coatings.

The application methods and work practice standards specified in this subsection still apply.

15. All VOC emissions from solvent washings shall be considered in the emission limitations unless the solvent is directed into containers that prevent evaporation into the atmosphere.

16. The emission limits in this subsection shall be achieved by:

(i) the application of low solvent coating technology where each and every coating meets the limit expressed in pounds VOC per gallon of coating, excluding water, stated in paragraphs 1., 2., 3., 4., 5., 6., 7., and 8 of this subsection; or

(ii) the application of low-solvent coating technology where the 24-hour weighted average of all coatings on a single coating line or operation meets the solids equivalent limit expressed in pounds VOC per gallon of coating solids stated in paragraphs 1., 2., 3., 4., 5., 6., and 8. of this subsection. Averaging across lines is not allowed; or

(iii) control equipment, including but not limited to incineration, carbon adsorption and condensation, with a capture system approved by the Director, provided that 90 percent of the nonmethane volatile organic compounds which enter the control equipment are recovered or destroyed, and that overall VOC emissions do not exceed the solids equivalent limit, expressed in pounds VOC per gallon of coating solids stated in paragraphs 1., 2., 3., 4., 5., 6., and 8. of this subsection; and

(iv) for motor vehicle plastic parts, compliance may be achieved only as stated in subparagraph 7. of this section. There is no solids equivalent limit for such coatings.

17. Definitions: For the purpose of this subsection, the following definitions apply:

(i) "2-pack coating" means a coating requiring the addition of a separate reactive resin, commonly known as a catalyst, before application to form an acceptable dry film. 2-pack coating may also be known as a "two-component coating".

(ii) "Adhesion primer" means a coating that is applied to a polyolefin part to promote the adhesion of a subsequent coating. An adhesion primer is clearly identified as an adhesion primer or adhesion promoter on its accompanying material safety data sheet.

(iii) "Air brush operations" means the application of a coating with a small, air-operated tool.

(iv) "Air-dried coating" means a coating that is dried by the use of air or forced warm air at temperatures up to 194°F.

(v) "Baked Coating" means a coating that is cured at a temperature at or above 90°C (194°F).

(vi) "Base Coat" means an initial coat of paint, generally after a primer, that is applied for protection or as a background color.

(vii) "Bedliner" means a multi-component coating, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied to a cargo bed after the application of topcoat to provide additional durability and chip resistance.

(viii) "Black coating" means a coating which meets both of the following criteria:

(1) maximum lightness: 23 units; and (2) saturation: less than 2.8, where saturation equals the square root of $A^2 + B^2$. These criteria are based on Cielab color space, 0/45 geometry. For spherical geometry, specular included, maximum lightness is 33 units.

(ix) "Business machine" means a device that uses electronic or mechanical methods to process information, perform calculations, print or copy information or convert sound into electrical impulses for transmission, including devices listed in standard industrial classification numbers 3572, 3573, 3579, and 3661 and photocopy machines, a subcategory of standard industrial classification number 3861.

(x) "Cavity wax" means a coating, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied into the cavities of the vehicle primarily for the purpose of enhancing corrosion protection.

(xi) "Clear coating" means a coating which lacks color and opacity or is transparent and uses the undercoat as a reflectant base or undertone color;

(xii) "Coating application system" means all operations and equipment which applies, conveys, and dries a surface coating including, but not limited to, spray booths, flow coaters, flashoff areas, air dryers and ovens.

(xiii) "Coating of plastic parts of automobiles and trucks" means the coating of any plastic part that is or shall be assembled with other parts to form an automobile or truck.

(xiv) "Coating of plastic parts of business machines" means the coating of any plastic part that is or shall be assembled with other parts to form a business machine.

(xv) "Deadener" means a coating, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied to selected vehicle surfaces primarily for the purpose of reducing the source of road noise in the passenger compartment.

(xvi) "Electric dissipating coating" means a coating that rapidly dissipates a high-voltage electric charge.

(xvii) "Electrostatic prep coat" means a coating that is applied to a plastic part solely to provide conductivity for the subsequent application of a primer, a topcoat, or other coating through the use of electrostatic application methods. An electrostatic prep coat is clearly identified as an electrostatic prep coat on its accompanying material safety data sheet.

(xviii) "EMI/RFI shielding coating" means a coating used on plastic electronics enclosures to reduce or eliminate electromagnetic or radio frequency interference.

(xix) "Extreme-performance coating" means a coating used on a plastic surface where the coated surface is, in its intended use, subject to the following: (a) chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes, chemical mixtures or solutions; or (b) repeated exposure to temperatures in excess of 250°F; or (c) repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleansers or scouring agents. Extreme-performance coatings include, but are not limited to, coatings applied to locomotives, railroad cars, farm machinery, and heavy duty trucks.

(xx) "Flexible coating" means any coating including but not limited to primer, base coat, clear coat or topcoat that is required to comply with engineering specifications for impact resistance, mandrel bend, or elongation as defined by the original equipment manufacturer.

(xxi) "Fog coat" means a coating that is applied to a plastic part for the purpose of color matching without masking a molded-in texture. A fog coat shall not be applied at a thickness of more than 0.5 mils of coating solids.

(xxii) "Gasket/sealing material" means a fluid, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied to coat a gasket or replace and perform the same

function as a gasket. Automobile and light-duty truck gasket/gasket sealing material includes room temperature vulcanization (RTV) seal material.

(xxiii) "Gloss reducer" means a coating that is applied to a plastic part solely to reduce the shine of the part. A gloss reducer shall not be applied at a thickness of more than 0.5 mils of coating solids.

(xxiv) "Lubricating wax/compound" means a protective lubricating material, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied to vehicle hubs and hinges.

(xxv) "Metallic coating" means a coating which contains more than five grams of metal particles per liter of coating as applied. "Metal particles" are pieces of a pure elemental metal or combination of elemental metals.

(xxvi) "Miscellaneous plastic parts and products" means surface coating of products manufactured by the following industrial source categories: large farm machinery, small farm machinery, small appliances, commercial machinery, industrial machinery, fabricated plastic products and any other industrial category which coats plastic parts or products under the Standard Industry Classification Code Major Groups 33, 34, 35, 36, 37, 38, 40, and 41. The miscellaneous plastic parts and products source category does not include:

- (I) automobiles and light-duty trucks;
- (II) metal cans;
- (III) flat metal sheets and strips in the form of rolls or coils;
- (IV) magnet wire for use in electrical machinery;
- (V) metal furniture;
- (VI) large appliances;
- (VII) aerospace manufacturing and rework operations;
- (VIII) automobile refinishing;
- (IX) customized top coating of automobiles and trucks, if production is less than 35 vehicles per day;
- (X) exterior of marine vessels;
- (XI) gel coats applied to fiber reinforced plastic (fiberglass composite) products removed from the mold or used as in-mold coatings in the production of fiberglass parts;
- (XII) fiberglass boat manufacturing materials; and
- (XIII) miscellaneous industrial adhesives.

(xxvii) "Military specification coating" means a coating which has a formulation approved by a United States Military Agency for use on military equipment.

(xxviii) "Mold-seal coating" means the initial coating applied to a new mold or a repaired mold to provide a smooth surface which, when coated with a mold release coating, prevents products from sticking to the mold.

(xxix) "Multi-colored coating" means a coating which exhibits more than one color when applied and is packaged in a single container and applied in a single coat.

(xxx) "Multi-component coating" means a coating requiring the addition of a separate reactive resin, commonly known as a catalyst or hardener, before application to form an acceptable dry film.

(xxxi) "Non-flexible Coating" means any coating that does not meet the definition of "flexible coating" as specified in this subsection.

(xxxii) "One-component coating" or "1-pack coating" means a coating that is ready for application as it comes out of its container to form an acceptable dry film. A thinner, necessary to reduce the viscosity, is not considered a component.

(xxxiii) "Optical coating" means a coating applied to an optical lens.

(xxxiv) "Primer" means the first layer and any subsequent layers of identically-formulated coating applied to the surface of a plastic part or product. Primers are typically used for corrosion prevention, protection from the environment, functional fluid resistance, and adhesion of subsequent coatings.

(xxxv) "Red coating" means a coating which meets all of the following criteria:

(I) Yellow limit: the hue of hostaperm scarlet.

(II) Blue limit: the hue of monastrel red-violet.

(III) Lightness limit for metallics: 35 percent aluminum flake.

(IV) Lightness limit for solids: 50 percent titanium dioxide white.

(V) Solid reds: hue angle of -11 to 38 degrees and maximum lightness of 23 to 45 units.

(VI) Metallic reds: hue angle of -16 to 35 degrees and maximum lightness of 28 to 45 units.

(VII) These criteria are based on Cielab color space, 0/45 geometry. For spherical geometry, specular included, the upper limit is 49 units. The maximum lightness varies as the hue moves from violet to orange. This is a natural consequence of the strength of the colorants, and real colors show this effect.

(xxxvi) "Sealer" means a high viscosity material, used at a facility that is not an automobile or light-duty truck assembly coating facility, that is generally, but not always, applied in the paint shop after the body has received an electrodeposition primer coating and before the application of subsequent coatings (e.g., primer-surfacer). The primary purpose of automobile and light-

duty truck sealer is to fill body joints completely so that there is no intrusion of water, gases or corrosive materials into the passenger area of the body compartment. Such materials are also referred to as sealant, sealant primer, or caulk.

(xxxvii) "Repair coating" means a coating used to re-coat portions of a previously coated product which has sustained mechanical damage to the coating following normal coating operations.

(xxxviii) "Resist coat" means a coating that is applied to a plastic part before metallic plating to prevent deposits of metal on portions of the plastic part.

(xxxix) "Shock-free coating" means a coating applied to electrical components to protect the user from electric shock. The coating has characteristics of being of low capacitance, high resistance, and having resistance to breaking down under high voltage.

(xl) "Stencil coating" means an ink or a pigmented coating which is rolled or brushed onto a template or stamp in order to add identifying letters, symbols and/or numbers.

(xli) "Texture coating" means a coating that is applied to a plastic part which, in its finished form, consists of discrete raised spots of the coating.

(xlii) "Topcoat" means any final coating applied to a plastic part or product.

(xlili) "Touch-up coating" means a coating used to cover minor coating imperfections appearing after the main coating operation.

(xliv) "Translucent coating" means a coating which contains binders and pigment and is formulated to form a colored, but no opaque, film.

(xlv) "Transfer efficiency" means the weight (or volume) of coating solids adhering to the surface being coated divided by the total weight (or volume) of coating solids delivered to the applicator.

(xlvi) "Trunk interior coating" means a coating, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied to the trunk interior to provide chip protection.

(xlvii) "Underbody coating" means a coating, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied to the undercarriage or firewall to prevent corrosion and/or provide chip protection.

(xlviii) "Vacuum-metalizing coating" means the undercoat applied to the substrate on which the metal is deposited or the overcoat applied directly to the metal film. Vacuum metalizing/physical vapor deposition (PVD) is the process whereby metal is vaporized and deposited on a substrate in a vacuum chamber.

18. Applicability: On and after January 1, 2015, the requirements of this subparagraph (vvv) shall apply to facilities at which the potential emissions of volatile organic compounds from all surface coating of miscellaneous plastic parts and products categories covered in subparagraphs 1. through 8. of this subparagraph equal or exceed 10 tons per year and are located in Barrow, Bartow, Carroll, Cherokee, Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Hall, Henry, Newton, Paulding, Rockdale, Spalding, and Walton counties. Any physical or operational changes that are necessary to comply with the provisions specified in this subparagraph are subject to the compliance schedule specified in

subparagraph 20. Prior to January 1, 2015, such facilities shall comply with the provisions of subparagraph 391-3-1-.02(2)(tt), if applicable.

19. Applicability: The requirements of this Subparagraph (vvv) will no longer be applicable by the compliance deadlines if the counties specified in subparagraph 18. are re-designated to attainment for the 1997 National Ambient Air Quality Standard for ozone prior to January 1, 2015. In the event the 1997 National Ambient Air Quality Standard for ozone is violated in the specified counties, the requirements of this Subparagraph (vvv) will only be reinstated if the Director determines that the measure is necessary to meet the requirements of the contingency plan.

20. Compliance Schedule:

(i) An application for a permit to construct and operate volatile organic compound emission control systems and/or modifications of process and/or coatings used must be submitted to the Division no later than **July 1, 2014**.

(ii) On-site construction of emission control systems and/or modification of process or coatings must be completed by **November 1, 2014**.

(iii) Full compliance with the applicable requirements specified this subparagraph (vvv) must be completed before **January 1, 2015**.