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Rule 1151

Motor Vehicle and Mobile Equipment Coating Operations

(A) General

(1) Purpose

- (a) The purpose of this rule is to reduce emissions of Volatile Organic Compounds (VOCs), from Coatings and solvents associated with the Refinishing of Motor Vehicles, Mobile Equipment and their Associated Parts and Components.

(2) Applicability

- (a) This rule is applicable to:

- (i) Any Person who uses, applies, or solicits the use or application of any Automotive Coating or associated solvent within the District.
- (ii) Any Person who supplies, sells, offers for sale, manufactures, or distributes any Automotive Coating or associated solvent for use within the District.

- (b) This rule does not apply to:

- (i) Any Coating applied to Motor Vehicles or Mobile Equipment, or their Associated Parts and Components, during manufacture on an Assembly Line.
- (ii) Any Automotive Coating or associated solvent that is offered for sale, sold or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging.
- (iii) Any Stencil Coating Product.
- (iv) Any Aerosol Coating Products that are in compliance with regulations and requirements adopted by the California Air Resources Board (CCR, Title 17, Subchapter 8.5, Section 94522).
- (v) Any Automotive Coating that is sold, supplied, or offered for sale in one-half (0.5) fluid ounce or smaller containers intended to be used by the general public to repair tiny surface imperfections.

(B) Definitions

For the purposes of this rule, the following definitions shall apply:

- (1) “Adhesion Promoter” - A Coating which is labeled and formulated to be applied to uncoated plastic surfaces to facilitate bonding of subsequent Coatings, and on which, a subsequent Coating is applied.
- (2) “Aerosol Coating Product” - A pressurized Coating product containing pigments or resins that dispenses product ingredients by means of a propellant, and is packaged in a disposable can for hand-held application, or for use in specialized equipment for ground traffic/marketing applications.
- (3) “Air Pollution Control Officer (APCO)” - The person appointed by the Air Pollution Control Board and assigned full time to manage and direct the business and operations of the district. The Air Pollution Control Officer is also the District Director, and is that person described for State purposes as the Air Pollution Control Officer.
- (4) “Alternative Emission Control Plan” - A plan which allows a source to demonstrate an alternative method of rule compliance.
- (5) “Anti-Glare Safety Coating” - a Coating formulated to eliminate glare for safety purposes on interior surfaces of a vehicle and which shows a reflectance of 25 or less on a 60° gloss meter.
- (6) “Assembly Line” - An arrangement of industrial equipment and workers in which the product passes from one specialized operation to another until complete by either automatic or manual means.
- (7) “Associated Parts and Components” - Structures, devices, pieces, modules, sections, assemblies, subassemblies, or elements of Motor Vehicles or Mobile Equipment that are designed to be part of Motor Vehicles or Mobile Equipment but which are not attached to Motor Vehicles or Mobile Equipment at the time of coating the structure, device, piece, module, section, assembly, subassembly, or element. The Associated Parts and Components definition does not include circuit boards.
- (8) “ASTM” - American Society for Testing and Materials
- (9) “Automotive Coating” - Any coating or Automotive Coating Component, used or recommended for use, in Motor Vehicle or Mobile Equipment Refinishing, service, maintenance, repair, restoration, or modification, except metal plating activities. Any reference to automotive Refinishing or Automotive Coating made by a Person, on the container, or in product literature constitutes a recommendation for use in Motor Vehicle or Mobile Equipment Refinishing.

- (10) “Automotive Coating Component” - Any portion of a coating, including, but not limited to, a Reducer or thinner, toner, hardener, and Additive, which is recommended by any person to distributors or end-users, for use in an Automotive Coating, or which is supplied for or used in an Automotive Coating. The raw materials used to produce the components are not considered Automotive Coating Components.
- (11) “Automotive Refinishing Facility” - Any shop, business, location, or parcel of land where Motor Vehicles or Mobile Equipment or their Associated Parts and Components are coated, including autobody collision repair shops. Automotive Refinishing Facility does not include the original equipment manufacturing plant where the Motor Vehicle or Mobile Equipment is completely assembled.
- (12) “Bright Metal Trim Repair Coating” - A Coating applied directly to chrome-plated metal surfaces for the purpose of appearance.
- (13) “Bus” - Any Motor Vehicle having a manufacturer's gross vehicle weight of more than 8600 pounds and which is designed primarily for the transportation of persons, and having a design capacity of over 12 persons.
- (14) “CARB” - California Air Resources Board
- (15) “CFR” - Code of Federal Regulations
- (16) “Cleaning Operations” - The removal of loosely held uncured adhesives, inks, Coatings, or contaminants, including, but not limited to, dirt, soil, or grease, from Motor Vehicles, Mobile Equipment, Associated Parts and Components, substrates, parts, products, tools, machinery, equipment, or general work areas.
- (17) “Clear Coating” - Any coating that contains no pigments and is labeled and formulated for application over a Color Coating or Clear Coating.
- (18) “Coating” - A material which is applied to a surface and which forms a film in order to beautify and/or protect such surface.
- (19) “Coating Categories” - The table below shows Coating Categories prior to the 05/01/2013 compliance deadline, and the corresponding Coating Categories after the 05/01/2013 compliance deadline:

Comparison of Coating Categories	
Coating Categories Prior to 05/01/2013	Coating Categories 05/01/13 and After
Adhesion Promoter	Adhesion Promoter
Anti-glare Safety Coating	Clear Coating, Color Coating, or Single-Stage Coating
Bright Metal Trim Repair Coating	Any Other Coating Type
Camouflage	Color Coating

Comparison of Coating Categories	
Coating Categories Prior to 05/01/2013	Coating Categories 05/01/13 and After
Elastomeric Materials	Primer, Color Coating, Clear Coating, Single-stage Coating, or Underbody Coating
General Topcoat	Single-Stage Coating
Gloss Flatteners (aka Low-Gloss Coatings)	Clear Coating
Heat Resistant	Primer, Color Coating, Clear Coating, or Single-stage Coating
Impact Resistant Coating	Single-Stage Coating, Clear Coating, Underbody Coating, or Truck Bed Liner Coating
Jamming	Clear Coating
Metallic/Iridescent Topcoat	Single-Stage Coating
Multi-Color Coatings	Multi-Color Coating
Multi-Color Multi-Stage	Multi-Color Coating
Multi-Color Stage System	Color Coating & Clear Coating
Multi-Color Topcoat	Multi-Color Coating
Precoat	Primer
Pretreatment Wash Primer	Pretreatment Coating
Primer	Primer
Primer Sealer	Primer Sealer
Primer Surfacer	Primer
Rubberized Asphaltic Underbody	Underbody Coating
Single-Stage Metallic/Iridescent Coating	Single-Stage Coating
Single-Stage Nonmetallic/Noniridescent Topcoat	Single-Stage Coating
Solid Color Topcoat	Single-Stage Coating
Specialty Coatings	This generic category has been eliminated and replaced with specific categories for the various coatings previously grouped together
Temporary Protective Coating	Temporary Protective Coating
Topcoats	Single-Stage Coating
Uniform Finish Blenders	Uniform Finish Coating
Water Hold-Out Coating	Primer
Weld-Thru Coatings	Primer

- (20) “Color Coating” - Any pigmented Coating, excluding Adhesion Promoters, Primers, and Multi-color Coatings, that requires a subsequent Clear Coating and which is applied over a Primer, Adhesion Promoter, or Color Coating. Color Coatings include metallic/iridescent Color Coatings.

- (21) “Elastomeric Materials” - Coatings which are specifically formulated and applied over coated or uncoated flexible plastic substrates for the purpose of adhesion.
- (22) “Electrostatic Spray Application” - A method of applying Coatings whereby the atomized Coating droplets are charged and subsequently deposited on the substrate by electrostatic attraction.
- (23) “Emission Control System” - Any combination of capture systems and control devices used to reduce VOC emissions from Automotive Coating operations.
- (24) “Exempt Compounds” - Those compounds listed in 40 CFR 51.100(s).
- (25) “Finish” - The Coating of incomplete vehicles, their parts and components, or Mobile Equipment for which the original Coating was not applied from an Original Equipment Manufacturer (OEM) plant Coating Assembly Line.
- (26) “Grams of VOC per Liter of Coating Less Water and Less Exempt Compounds (VOC Content)” - The weight of VOC per combined volume of VOC and Coating solids and shall be calculated by the following equation:

$$G_{VOC/LoC} = \frac{W_S - W_W - W_{ES}}{V_M - V_W - V_{ES}}$$

- Where: $G_{VOC/LoC}$ = Grams VOC/L of Coating Less Water and Exempt Compounds
- W_S = weight of volatile compounds in grams
- W_W = weight of water in grams
- W_{ES} = weight of Exempt Compounds in grams
- V_M = volume of material in liters
- V_W = volume of water in liters
- V_{ES} = volume of Exempt Compounds in liters

- (27) “Grams of VOC per Liter of Material” - The weight of VOC per volume of material as calculated by the following equation:

$$G_{VOC/LoM} = \frac{W_S - W_W - W_{ES}}{V_M}$$

- Where: $G_{VOC/LoM}$ = Grams VOC/L of Material
- W_S = weight of volatile compounds in grams
- W_W = weight of water in grams
- W_{ES} = weight of exempt compounds in grams
- V_M = volume of material in liters

- (28) “Group II Exempt Compounds” - Compounds that are restricted because they are either toxic, potentially toxic, upper-atmosphere ozone depleters, or cause other environmental impacts. These compounds are listed as follows:
- methylene chloride (dichloromethane)
 - 1,1,1-trichloroethane (methyl chloroform)
 - Trichlorofluoromethane (CFC-11)
 - dichlorodifluoromethane (CFC-12)
 - 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113)
 - 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114)
 - chloropentafluoroethane (CFC-115)
 - cyclic, branched, or linear, completely methylated siloxanes
 - tetrachloroethylene (perchloroethylene)
- (29) “High-Volume, Low-Pressure (HVL) Spray” - Equipment Permanently Labeled as such used to apply Coatings by means of a spray gun which is designed to be operated and which is operated between 0.1 and 10 pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns.
- (30) “Impact Resistant Coating” - Any Coating applied to a rocker panel for the purpose of chip resistance to road debris.
- (31) “Metallic/Iridescent Color Coating” - Any Coating which contains iridescent particles, composed of either metal as metallic particles or silicon as mica particles, in excess of five (5) grams per liter (0.042 pounds per gallon) as applied, where such particles are visible in the dried film.
- (32) “Mobile Equipment” - Any device which may be drawn or is capable of being driven on a Roadway or rails, including but not limited to, trains, railcars, truck bodies, truck trailers, utility bodies, camper shells, mobile cranes, bulldozers, street cleaners, and implements of husbandry or agriculture.
- (33) “Motor Vehicle” - a vehicle which is self-propelled, including, but not limited to cars, trucks, Buses, golf carts, vans, Motorcycles, tanks, and armored personnel carriers.
- (34) “Motorcycle” - any Motor Vehicle other than a tractor having a seat or saddle for the use of the rider and designed to travel on not more than three wheels in contact with the ground and weighing less than 1500 pounds, except that four wheels may be in contact with the ground when two of the wheels are a functional part of a sidecar.
- (35) “Multi-Color Coating” - Any Coating that exhibits more than one color in the dried film after a single application, is packaged in a single container, and hides surface defects on areas of heavy use, and which is applied over a Primer or Adhesion Promoter.

- (36) “Multi-Colored Multistage Topcoat System” - A Basecoat/Clearcoat Topcoat System in which the basecoat portion is a Multi-Colored Topcoat.
- (37) “Multi-Colored Topcoat” - a Coating which exhibits more than one color when applied, and which is packaged in a single container and applied in a single coat.
- (38) “Multistage Topcoat System” - Any Basecoat/Clearcoat Topcoat System or any Three-Stage Topcoat System, manufactured as a system, and used as specified by the manufacturer.
- (39) “Passenger Car” - any Motor Vehicle designed primarily for transportation of persons and having a design capacity of 12 persons or less.
- (40) “Person” - Shall have the same meaning as defined in the California Health and Safety Code §39047.
- (41) “Permanently Labeled” - Permanent labeling is in the form of an engraving or a plate permanently attached to the equipment.
- (42) “Pretreatment Coating” - A Coating which contains no more than sixteen (16) percent solids, by weight, and at least one-half (0.5) percent acid, by weight, is used to provide surface etching, and is applied directly to bare metal surfaces to provide corrosion resistance and promote adhesion for subsequent Coatings.
- (43) “Primer” - Any Coating which is labeled and formulated for application to a substrate to provide 1) a bond between the substrate and subsequent coats, 2) corrosion resistance, 3) a smooth substrate surface, or 4) resistance to penetration of subsequent coats, and on which a subsequent Coating is applied. Primers may be pigmented.
- (44) “Primer Sealer” - Any Coating which is labeled and formulated for application prior to the application of a Color Coating for the purpose of color uniformity, or to promote the ability of an underlying Coating to resist penetration by the Color Coating.
- (45) “Primer Surfacer” - A Coating applied for the purpose of corrosion resistance or adhesion, and which promotes a uniform surface by filling in surface imperfections.
- (46) “Reducer” - Any volatile liquid used to reduce the viscosity of the Coating, but not used for Cleaning Operations. This liquid may be solvents, diluents, or both, and may also be referred to as a thinner.
- (47) “Refinishing” - Any Coating of Motor Vehicles, their Associated Parts and Components, or Mobile Equipment, including partial body collision repairs, for the purpose of protection or beautification and which is subsequent to the original Coating applied at an Original Equipment Manufacturing (OEM) plant Coating Assembly Line.

- (48) “Roadway” - A way or place used for purposes of vehicular travel.
- (49) “Rocker Panel” - The panel area of a Motor Vehicle which is no more than ten inches from the bottom of a door, quarter panel or fender.
- (50) “Rubberized Asphaltic Underbody Coating” - A Coating applied to wheel wells, the inside of door panels or fenders, the underside of a trunk or hood, or the underside of the Motor Vehicle itself, for the purpose of sound deadening or protection.
- (51) “Single-Stage Coating” – Any pigmented coating, excluding Primers and Multi-Color coatings, labeled and formulated for application without a subsequent clear coat. Single-stage coatings include single-stage metallic/iridescent Coatings.
- (52) “Solvent Cleaning Operations” - The removal of loosely held uncured adhesives, uncured inks, uncured Coatings, and contaminants which include, but are not limited to, dirt, soil, and grease from parts, products, tools, machinery, equipment, and general work areas. Each distinct method of cleaning in a cleaning process which consists of a series of cleaning methods shall constitute a separate Solvent Cleaning Operation.
- (53) “Specialty Coating” - Any of the following Coatings: Adhesion Promoters, Uniform Finish Blenders, Elastomeric Materials, Anti-Glare Safety Coatings, Impact Resistant Coatings, Rubberized Asphaltic Underbody Coatings, Water Hold-Out Coatings, Weld-Thru Coatings, and Bright Metal Trim Repair Coatings.
- (54) “Spot Repair” - Repair of an area on a motor vehicle, piece or mobile equipment, or associated parts or components of less than an entire panel.
- (55) “Stencil Coating” - An ink or a pigmented Coating which is rolled or brushed onto a template or a stamp in order to add identifying letters, symbols, and/or numbers to Motor Vehicles, Mobile Equipment, or their parts and components.
- (56) “Targeted HAP Compounds”- The Hazardous Air Pollutant (HAP) compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd) targeted by 40 CFR 63 Subpart HHHHHH – National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources.
- (57) “Temporary Protective Coatings” - Any Coating which is labeled and formulated for the purpose of temporarily protecting areas from overspray or mechanical damage.
- (58) “Topcoat” – Any Coating applied over a Primer, Primer System or an original OEM Finish for the purpose of appearance, identification, or protection.
- (59) “Transfer Efficiency” - The ratio of the weight of Coating solids deposited on an object to the total weight of Coating solids used in a Coating application step, expressed as a percentage.
- (60)

- (61) “Truck” - A Motor Vehicle designed, used, or maintained primarily for the transportation of property.
- (a) “Large-Sized Truck” - A Truck having a manufacturer's gross vehicle weight rating of more than 8600 pounds.
 - (b) “Medium-Sized Truck” - A Truck having a manufacturer's gross vehicle weight of 6001 to 8600 pounds.
 - (c) “Small-Sized Truck” - Any Motor Vehicle having a manufacturer's gross vehicle weight rating at 6000 pounds or less and which is designed primarily for the purposes of transportation of property or is a derivative of such vehicle, or is available with special features enabling on-street or off-highway operation and use.
- (62) “Truck Bed Liner Coating” - Any Coating, excluding Clear, Color, Multi-color, and Single-stage Coatings, labeled and formulated for application to a truck bed to protect it from surface abrasion.
- (63) “Underbody Coating” - Any Coating labeled and formulated for application to wheel wells, the inside of door panels or fenders, the underside of a trunk or hood, or the underside of the motor vehicle.
- (64) “Uniform Finish Blenders” - Any Coating labeled and formulated for application to the area around a Spot Repairs for the purpose of blending a repaired area’s color or clear coat to match the appearance of an adjacent area’s existing Coating. On and after 05/01/13 this Coating Category will be referred to as Uniform Finish Coating.
- (65) “Uniform Finish Coating” - Any Coating labeled and formulated for application to the area around a Spot Repair for the purpose of blending a repaired area’s color or clear coat to match the appearance of an adjacent area’s existing Coating. Prior to 05/01/13 this Coating Category may be referred to as Uniform Finish Blenders.
- (66) “Van” - a closed Truck for carrying property or persons.
- (a) “Medium-Sized Van” - A Van having a manufacturer's gross vehicle weight rating of 6001 to 8600 pounds.
 - (b) “Small-Sized Van” - A Van having a manufacturer's gross vehicle weight rating at 6000 pounds or less and which is designed primarily for purposes of transportation of property and/or persons.
- (67) “Vehicle” - a device by which any person or property may be propelled, moved, or drawn upon a Roadway, excepting a device moved exclusively by human power or used exclusively upon stationary rails or tracks.
- (68) “VOC Actual” - This definition is the same as the definition of Grams of VOC per Liter of Material as listed under subsection (B)(27).

- (69) “VOC Regulatory” - This definition is the same as the definition of Grams of VOC per Liter of Coating Less Water and Less Exempt Compounds as listed under subsection (B)(26).
- (70) “Volatile Organic Compound (VOC)” - Any volatile compound containing the element carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and Exempt Compounds.
- (71) “Water Hold-Out Coating” - A Coating applied to the interior cavity areas of doors, quarter-panels and rocker panels for the purpose of corrosion resistance to prolonged water exposure.
- (72) “Weld-Thru Coating” - A Coating applied to metal immediately prior to welding to provide corrosion resistance.

(C) Requirements

- (1) VOC Content of Coatings
- (a) Effective on the dates specified, a person shall not apply Coating to a Motor Vehicle, Mobile Equipment, or Associated Parts or Components, that has a VOC content in excess of the limits contained in Table 1 and Table 2 of this subsection except as provided in Section (C)(3)(a) or (b).

Table 1 - Coating Categories and VOC Limits

	VOC Regulatory Limit, as applied, in grams per Liter (pounds per gallon)
Coating Categories	Effective on and after 05/01/13
Adhesion Promoter	540 (4.5)
Clear Coating	250 (2.1)
Color Coating	420 (3.5)
Multi-color Coating	680 (5.7)
Pretreatment Coating	660 (5.5)
Primer	250 (2.1)
Primer Sealer	250 (2.1)
Single-stage Coating	340 (2.8)
Temporary Protective Coating	60 (0.5)
Truck Bed Liner Coating	310 (2.6)
Underbody Coating	430 (3.6)
Uniform Finish Coating	540 (4.5)

	VOC Regulatory Limit, as applied, in grams per Liter (pounds per gallon)
Any Other Coating Type	250 (2.1)

Table 2 - Coating Categories and VOC Limits

Coating Categories	VOC Regulatory Limit, as applied, in grams per Liter (pounds per gallon)	
	Group 1* Vehicles prior to 05/01/13	Group 2** vehicles prior to 05/01/13
Pretreatment Wash Primer	780 (6.5)	780 (6.5)
Primer/Primer Surfacer/ Primer Sealer	250 (2.1)	250 (2.1)
Primer Sealer	250 (2.1)	340 (2.8)
Topcoat		
General	340 (2.8)	420 (3.5)
Metallic/Iridescent	340 (2.8)	420 (3.5)
Multi-Colored	680 (5.7)	680 (5.7)
Multistage	340 (2.8)	420 (3.5)
Specialty Coatings	840 (7.0)	840 (7.0)

*Group 1 Vehicles are public transit buses and mobile equipment including but not limited to: truck bodies, truck trailers, utility bodies, camper shells, mobile cranes, bulldozers, street cleaners, golf carts, and implements of husbandry, where color match is not required.

**Group 2 Vehicles are passenger cars; large/heavy duty truck cabs and chassis with a manufacturer's gross vehicle weight over 10,000 pounds; light and medium duty trucks and vans having a manufacturer's gross vehicle weight rating of 10,000 pounds or less; and motorcycles; and Group 1 Vehicles where color match is required.

- (b) Compliance with the VOC limits shall be based on VOC Content, including any VOC material added to the original coating supplied by the manufacturer, less water and Exempt Compounds, as applied to the Motor Vehicle, Mobile Equipment, or Associated Parts or Components (please, refer to subsection (B)(26) for the calculation of VOC Content).
- (2) Most Restrictive VOC Limit
 - (a) If anywhere on the container of any Automotive Coating, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature, any representation is made that indicates that the Coating meets the definition of, or is recommended for use of, more than one of the Coating categories listed in subsection (C)(1)(a) and (b), then the lowest applicable VOC content limit in Table 1 and Table 2 shall apply.
- (3) Alternative Compliance
 - (a) Emission Control System

A person may comply with the provisions of section (C)(1) by using an approved Emission Control System consisting of collection and control devices, that is approved, in writing, by the APCO for reducing emissions of VOC. The APCO shall approve such Emission Control Systems only if the Emission Control System demonstrates a control efficiency of at least 85 percent. The required efficiency of an Emission Control System at which an equivalent or greater level of VOC emission reduction will be achieved shall be calculated by the following equation:

$$CE = \left[1 - \frac{VOC_{LWc} \times \frac{1 - \left(\frac{VOC_{LWn,Max}}{D_{n,Max}} \right)}{VOC_{LWn,Max} \times \frac{1 - \left(\frac{VOC_{LWc}}{D_c} \right)}} \right] \times 100$$

- Where:
- CE = Control Efficiency, percent
 - VOC_{LWc} = VOC Limit of Rule 1116, less water and less Exempt Compounds, pursuant to Section C.1.
 - VOC_{LWn,Max} = Maximum VOC content of non-compliant Automotive Coating used in conjunction with a control device, less water and Exempt Compounds.
 - D_{n,Max} = Density of VOC solvent, Reducer, or thinner contained in the non-compliant Automotive Coating containing the maximum VOC.
 - D_c = Density of corresponding VOC solvent, Reducer, or thinner used in the compliant Automotive Coating system = 880g/L.

(b) Alternative Emission Control Plan

A person may comply with the provisions of paragraph (C)(1)(a) by means of an Alternative Emissions Control Plan, pursuant to Rule 108 – *Alternative Emissions Control Plans*.

(4) Prohibited Compounds

- (a) A Person shall not manufacture, sell, offer for sale, distribute for use in the District, or apply any Automotive Coating which contains any Group II Exempt Compounds, as defined in subsection (B)(28).

(5) Carcinogenic Materials

- (a) A person shall not manufacture Automotive Coatings in which cadmium or hexavalent chromium was introduced as a pigment or as an agent to impart any property or characteristic to the Coatings during

manufacturing, distribution, or use of the applicable Coatings as defined by the *Air Toxic Control Measure (ATCM) for Emissions of Hexavalent Chromium and Cadmium from Motor Vehicle and Mobile Equipment Coatings*, Title 17 CCR, section 93112.

(6) Application Methods

- (a) Except for Underbody Coatings, graphic arts operations, Truck Bed Liner Coatings, or any Coating use of less than one (1.0) fluid ounce (29.6 milliliters), no person shall apply any Coating to Motor Vehicles or Mobile Equipment or their Associated Parts and Components unless by the use of one of the following methods:
 - (i) Brush, dip, or roller; or,
 - (ii) Electrostatic Application equipment, operated in accordance with the manufacturer's recommendations and in compliance with permit conditions; or,
 - (iii) High-Volume, Low-Pressure (HVLP) Spray, operated in accordance with the manufacturer's recommendations and in compliance with permit conditions; or,
 - a. No Person shall sell or offer for sale, for Automotive Refinishing use within the District, any HVLP spray gun without a permanent marking denoting the maximum inlet air pressure in pounds per square inch gauge (psig) at which the gun will operate within the parameters specified in Section (B)(29).
 - b. If an Automotive Refinishing gun is not Permanently Labeled, the operator must demonstrate that the gun meets the HVLP definition in Section (B)(29) in design and use. A satisfactory demonstration must be based on the manufacturer's published technical material on the design of the gun and by a demonstration of the operation for the gun using an air pressure tip gauge designed specifically for the gun in use.
 - (iv) Any other Coating application which has been demonstrated to the satisfaction of the APCO to be capable of achieving a Transfer Efficiency equivalent to, or higher than, the application methods listed in subsections (C)(6)(a)(i) and (C)(6)(a)(ii) above, but not less than 65 percent, as per subsections (G)(2)(e) and (G)(2)(k), and for which written approval of the APCO has been obtained.

(7) Surface Preparation and Cleaning Operations

- (a) The requirements of this subsection shall apply to any Person using solvent for Surface Preparation and Cleaning Operations.
 - (i) Any Person shall not use an organic compound(s), or mixture thereof, (excluding Exempt Compounds) for Surface Preparation

and Cleaning Operations with a VOC content in excess of twenty-five (25) grams per liter (0.21 pounds per gallon) of material.

- a. Cleaning with aerosol solvent products shall not be subject to the provisions of subsection (C)(7)(a) if 160 fluid ounces or less of aerosol solvent products are used per day, per facility.
 - (ii) Any Person shall use closed, non-absorbent containers for the storage or disposal of any applicator (including brushes, swabs, cloth or paper) used for solvent Surface Preparation and Cleaning Operations.
 - (iii) Any Person shall store all Automotive Coatings, Coating components, and fresh or spent solvent in vapor tight and closed containers, except while adding or removing them from the containers.
 - (iv) Any Person shall not use organic compounds for the Cleaning Operations of spray equipment including paint liners unless an enclosed system is used for Cleaning Operations. The system shall enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing and draining procedures. Equipment used shall minimize the evaporation of organic compounds to the atmosphere.
- (b) Effective May 1, 2013, no Person shall possess at any Automotive Refinishing Facility, any solvent used for Surface Preparation and Cleaning Operations with a VOC content that does not comply with the requirements in subsection (C)(7)(a)(i).
- (8) Prohibition of Possession, Specification and Sale
- (a) No Person subject to this rule shall possess any Automotive Coating that is not in compliance with the requirements of subsection (C)(1), unless one or more of the following conditions apply:
 - (i) The Coating is located at a facility that utilizes an approved Emission Control System pursuant to subsection (C)(3)(a), and the Coating meets the limits specified in permit conditions.
 - (ii) The Coating is located at a facility that operates in compliance with an approved Alternative Emissions Control Plan pursuant to subsection (C)(3)(b), and the Coating is specified in the plan.
 - (iii) The Coating is located at a training center and the Coating is used for educational purposes, provided that the VOC emissions from Coatings not meeting VOC limits of section (C)(1) do not exceed twelve (12) pounds per day.
 - (iv) The Coating is located at a prototype Motor Vehicle manufacturing facility and the Coating is supplied by an assembly-line Motor Vehicle manufacturer for use in the Refinishing of a prototype Motor Vehicle, provided that the VOC emissions from Coatings not meeting the VOC limits of section (C)(1) do not exceed

twenty-one (21) pounds per day and 930 pounds in any one calendar year.

- (b) No person shall solicit from, or require any other Person to use, in the District any Automotive Coating or solvent which, when applied as supplied or thinned or reduced according to the manufacturer's recommendation for application, does not meet the:
 - (i) Applicable VOC limits required by subsection (C)(1) for that specific application unless:
 - a. The Coating is located at a Automotive Refinishing Facility that utilizes an approved Emission Control System pursuant to subsection (C)(3)(a), and the Coating meets the limits specified in permit conditions.
 - b. The Coating is specifically exempt pursuant to section (D) of this rule.
 - (ii) Applicable VOC limits for solvent for Surface Preparation and Cleanup Operations pursuant to section (C)(7).
- (c) No Person shall manufacture, blend, supply, repack for sale, offer for sale, sell, or distribute for use in the District any Automotive Coating which, when applied as supplied or thinned or reduced according to the manufacturer's recommendation for application, does not meet the:
 - (i) Applicable VOC limits required by subsection (C)(1) for the specific application, unless:
 - a. The Coating is located at an Automotive Refinishing Facility that utilizes an approved Emission Control System pursuant to subsection (C)(3)(a), and the Coating meets the limits specified in permit conditions.
 - b. The Coating is specifically exempt under section (D) of this rule.
 - c. The Person that offers for sale or distributes the Coating keeps the following records for at least five (5) years and makes them available to the APCO upon request, the following information:
 - 1. Coating name and manufacturer;
 - 2. Application method;
 - 3. Automotive Coating Category and mix ratio specific to the Coating;
 - 4. VOC content of Coating;
 - 5. Documentation that the material is a Coating;
 - 6. Current manufacturer specification sheets, material safety data sheets (MSDS), technical data sheets, or air quality data sheets, which list the VOC content of each ready-to-spray Coating (based on the manufacturer's stated mix ratio), Automotive

- Coating Components, and VOC content of each solvent;
7. Purchase records identifying the Automotive Coating category, name, and volume of Coatings; and,
 8. The name and address of the Person purchasing the Coating, a statement of the basis the purchase will comply with this paragraph, including if use is for outside the District, and acknowledgement by the purchaser that this statement is correct.
- (ii) Requirements of subsections (C)(4) and (C)(5).
- (d) No Person shall solicit from, require, offer for sale to, sell to, or distribute to any other Person for the use in the District any Automotive Coating application equipment that does not meet the requirements of subsection (C)(6).
- (e) The requirements of subsections (C)(1), (C)(2), and (C)(3) shall apply to all written or oral agreements executed and entered into under the terms of which an Automotive Coating or a Coating application equipment shall be used at any location within the District.

(D) Exemptions

- (1) The provisions of this rule shall not apply to:
- (a) Any Coating applied to Motor Vehicle or Mobile Equipment, or their Associated Parts and Components, during manufacture on an Assembly Line.
 - (b) Any Automotive Coating that is offered for sale, sold, or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging.
 - (c) Any Stencil Coating Product.
 - (d) Any Aerosol Coating Product.
 - (e) Any Automotive Coating that is sold, supplied, or offered for sale in one-half (0.5) fluid ounce or smaller containers.
- (2) The prohibitions specified in subsections (C)(8) shall not apply to persons offering for sale to, selling to, distributing to, or requiring other persons who are operating an approved Emission Control System under subsection (C)(3)(a), or complying under subsection (C)(3)(b), or operating pursuant to subsection (D)(3).
- (3) The requirements of subsection (C)(1)(a) shall not apply to Coatings applied for educational purposes at Coating training centers, which are owned and operated

by Coating manufacturers, provided that the VOC emissions emitted at a Coating training center from Coatings not complying with subsection (C)(1)(a) do not exceed twelve (12) pounds per day.

- (4) The requirements of subsection (C)(1) shall not apply to Coatings located at a prototype Motor Vehicle manufacturing facility and the Coating is supplied by an assembly-line Motor Vehicle manufacturer for use in the Refinishing of a prototype Motor Vehicle, provided that the VOC emissions from Coatings not meeting the VOC limits of section (C)(1) do not exceed twenty-one (21) pounds per day and 930 pounds in any one calendar.
- (5) Any facility or Person classified as exempt or claiming to be exempt under this section, (D), shall meet the record keeping requirements of this rule so as to be able to prove the exemption status.
- (6) Rule 442 Applicability
 - (a) Any Coating, Coating operation, or facility which is exempt from all or a portion of the VOC limits of this rule shall comply with the provisions of Rule 442 if applicable.

(E) Administrative Requirements

- (1) Manufacturer's Compliance Statement Requirement
 - (a) For each individual Automotive Coating, Automotive Coating Component, ready-to-spray mixture (based on the manufacturers stated mix ratio), and solvents the manufacturer and/or repackager shall include the following information on a product data sheet, or an equivalent medium:
 - (i) The VOC Actual and the VOC Regulatory for Coatings (in grams per liter).
 - (ii) The weight percentage of volatiles, water, and Exempt Compounds.
 - (iii) The volume percentage of water and Exempt Compounds.
 - (iv) The density of the material (in grams per liter).
 - (v) The weight percentage of all Targeted HAP Compounds.
 - (b) For each solvent used in Solvent Cleaning Operations, the manufacturer and/or repackager shall include the following information on a product data sheet, or an equivalent medium:
 - (i) The VOC Actual and the VOC Regulatory for Coatings (in grams per liter).
- (2) Manufacturer's Labeling Requirements

- (a) The manufacturer and/or repackager of Automobile Coatings or Automotive Coating Components shall include, on all containers, the applicable use Coating Category(ies), and the VOC Actual and the VOC Regulatory for Coatings, as supplied (in grams per liter).
- (b) The manufacturer and/or repackager of solvents subject to this rule shall include on all containers the VOC content for solvents, as supplied (in grams per liter).

(F) Record Keeping Requirements

- (1) All Persons subject to this rule and any Person claiming any exemption under sections (D)(1)(a) and (D)(1)(b) shall comply with the following requirements:
 - (a) Maintain and have available during an inspection, a current list of Automotive Coatings and solvents in use which provides all of the Coating data necessary to evaluate compliance, including the following information:
 - (i) The name and manufacturer;
 - (ii) The Coating Category type and the mix ratio of components used;
 - (iii) The VOC Actual and the VOC Regulatory content of each Automotive Coating as applied, or VOC content for solvent;
 - (iii) The Targeted HAP Compounds content as applied in weight percentage; and,
 - (v) The application method used.
 - (b) Maintain records on a daily basis including:
 - (i) Automotive Coating and mix ratio of components used in the Automotive Coating;
 - (ii) Quantity of each Automotive Coating applied;
 - (iii) Application method used to apply Automotive Coating; and,
 - (iv) Any Person/facility utilizing an add-on Emission Control System as a means of complying with provisions of this rule shall also maintain records of key system operating and maintenance data for the purpose of demonstrating continuous compliance during periods of emission producing activities. The data shall be recorded in a manner as prescribed by the District.
 - (c) Maintain records on a monthly basis for Surface Preparation and Cleaning Operations including:
 - (i) The name and manufacturer of the solvent used, including methylene chloride (MeCl).
 - (i) The amount of each solvent and methylene chloride (MeCl) consumed for any use, in gallons.

- (ii) The weight percentage of each solvent and methylene chloride (MeCl) consumed for any use.
- (d) Such records shall be retained and available for inspection by the APCO for a minimum of five (5) years.
- (2) Any Person claiming any exemption under sections (D)(1)(c), (D)(1)(d), and (D)(1)(e) shall comply with the following requirements:
 - (b) Maintain records on a daily basis including:
 - (i) Exempt product type (i.e. Stencil Coating, Aerosol Coating Product, half-fluid ounce Coating);
 - (ii) The name and manufacturer of the exempted Coating type; and,
 - (iii) The amount of the exempted Coating type.

(G) Test Methods

- (1) A violation of the limits contained in this rule as determined by any one of these test methods shall constitute a violation of this rule.
- (2) The following specified test methods shall be used to determine compliance with the provisions of this rule.
 - (a) VOC Content of Coatings or Solvents
 - (i) The VOC content of Coatings or solvents shall be determined as prescribed by United States Environmental Protection Agency Reference Method 24 (without correction for Exempt Compounds) as set forth in Appendix A of Title 40 of the Code of Federal Regulations (40 CFR) Part 60, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings".
 - (b) Determination of Iridescent Particles/Metallic Content
 - (i) The metal and silicon content of Metallic/Iridescent Color Coatings shall be determined by South Coast Air Quality Management District Method 318-95, "Determination of Weight Percent Elemental Metal in Coatings by X-ray" (July 1996).
 - (c) Acid Content
 - (i) The acid content shall be determined by ASTM Test Method D1613-96, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products" (May 1996).

- (d) Reflectance of Anti-Glare Safety Coatings
 - (i) The reflectance of Anti-Glare Safety Coatings shall be measured by ASTM Test Method C523-89 (1989).
- (e) Transfer Efficiency
 - (i) The transfer efficiency of alternative Coating application methods, as defined by subsection (C)(6)(a)(iii), shall be determined in accordance with the South Coast Air Quality Management District method "TE -Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989."
- (f) Equivalent Test Methods
 - (i) Other test methods determined to be equivalent after review by the staffs of the District, California Air Resources Board, and the United States Environmental Protection Agency, and approved in writing by the Air Pollution Control Officer may also be used for methods of analysis.
- (g) Determination of Efficiency of Emission Control Systems
 - (i) Emissions of VOC for operations with Emission Control Systems shall be measured as prescribed by EPA Reference Method 25, 25A, or 25B for determining VOC emissions and control device efficiency, in combination with the USEPA method, "Guidelines for Determining Capture Efficiency" (January 9, 1995) and 40 CFR 51, Appendix M, Methods 204-204f as applicable for determination of capture efficiency.
- (h) Determination of Methyl Acetate, Acetone, and PCBTF Content
 - (i) The quantity of methyl acetate , acetone, t-butyl acetate, and parachlorobenzotrifluoride shall be determined by using ASTM Method D6133-02: "Standard Test Method for Acetone, *p*-Chlorobenzotrifluoride, Methyl Acetate or *t*-Butyl Acetate Content of Solventborne and Waterborne Paints, Coatings, Resins, and Raw materials by Direct Injection Into a Gas Chromatograph" (February 2003).
- (i) Determination of Alternative Compliance
 - (i) Alternative compliance shall be determined by USEPA Method 25, 25A, or 25B, Title 40 CFR Part 60, Appendix A as applicable. A source is in violation if the measured VOC emissions, as measured by any of the test methods, exceed the standards specified in Section (C)(1).

- (j) Exempt Compound Content
 - (i) Exempt compound content, other than as determined pursuant to section (G)(2)(3), shall be determined by using CARB Method 432, “Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings” (September 12, 1989); CARB Method 422, “Determination of Volatile Organic Compounds in Emissions from Stationary Sources” (September 12, 1990); or, South Coast Air Quality Management District (SCAQMD) Method 303-91, “Determination of Exempt Compounds” (August 1996).

- (k) HVLP Equivalency
 - (i) Transfer Efficiency equivalent to HVLP shall be determined by procedures as prescribed in the South Coast Air Quality Management District (SCAQMD) document "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns” (September 26, 2002).

- (l) Multiple Test Methods
 - (i) When more than one test method or set of test methods are specified for any testing, a violation of any requirement of this rule established by any one of the specified test methods or set of test methods shall constitute a violation of the rule.

[SIP: See AV Full SIP Table at <https://avaqmd.ca.gov/rules-plans>]