Rule 3.19 Motor Vehicle and Mobile Equipment Coating Operations
(Adopted 8/6/98, Amended 8/1/2011, 8/1/2016)

A. GENERAL

A.1 **PURPOSE:** The purpose of this rule is to limit the emission of volatile organic compounds (VOCs) into the atmosphere from coatings and coating components associated with the coating of motor vehicles, mobile equipment and associated parts and components.

A.2 **APPLICABILITY:** The provisions of this rule shall apply to any person who supplies, sells, offers for sale, manufactures, or distributes any automotive coating or coating component for use within the District, as well as any person who uses, applies, or solicits the use or application of any automotive coating or coating component within the District.

a. The amended rule shall become effective on upon the date of adoption.

A.3 **SEVERABILITY:** If any section, subsection, paragraph, sentence, phrase, provision, or portion of this rule for any reason is judged to be unconstitutional or unenforceable by any court of competent jurisdiction, that portion shall be deemed as a separate, distinct, and independent provision, and the holding shall not affect the validity to the remaining portions of the rule.

A.4 **EXEMPTIONS:** The provisions of this rule shall not apply to the following:

a. Aerosol Coating Products: The provisions of this rule shall not apply to the application of aerosol coating products from non-refillable aerosol containers.

b. Coatings Shipped Outside The District: The provisions of this rule shall not apply to 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 packing.

c. Small Quantity: The provisions of this rule shall not apply to any automotive coating that is sold, supplied, or offered for sale in 0.5 fluid ounce or smaller containers intended to be used by the general public to repair tiny surface imperfections.

d. Assembly Line: The provisions of this rule shall not apply to any coating applied to motor vehicles or mobile equipment, or their associated parts and components, during manufacture on an assembly line.

e. Spray Booths and Prep Station Exemption: The requirements of subsection C.5, Spray Booths, and Prep Stations shall not apply to:

1. Any repair, touch-up, or spot priming operation which does not exceed a total of nine (9) square feet per vehicle. All such operations shall be conducted in a controlled area such that a public nuisance is not caused;

2. Any weld-thru primer;

3. Any application of coatings to owner operated agricultural equipment;

4. Any application of coatings to owner operated construction vehicles.

f. Residential Dwellings: Any coating operation of a vehicle by a resident of a one or two family dwelling shall be exempt from this rule provided:

1. The resident is the registered owner of the vehicle being coated;

2. The coating operation is not being conducted as a business;

3. The coating operation is limited to two vehicles per year;

4. The coating operation does not cause a public nuisance.

g. Shape and Size Exemption: With prior written approval of the APCO, and on a limited term basis, the requirements of subsection C.5, Spray Booth and Prep Stations, shall not apply to the coating of vehicles which, due to shape or size, cannot reasonably be contained in a spray booth.

h. Application Methods: The provisions of Section C.3 of this Rule shall not apply to the application of underbody coatings, graphic design applications, truck bed liner coatings, or any coating use of less than one (1) fluid ounce (29.6 milliliters).

B. DEFINITIONS

B.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.

B.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 non-refillable can for hand-held application.

B.3 **ASSEMBLY LINE:** An arrangement of industrial equipment and workers such as an Original Equipment Manufacturing Plant in which the product passes from one specialized operation to another until complete, by either automatic or manual means.

B.4 **ASSOCIATED PARTS AND COMPONENTS:** Any 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, module, section, assembly, subassembly, or element. "Associated parts and components" does not include circuit boards.

B.5 **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.

B.6 **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.

B.7 **CATALYST:** A substance whose presence initiates the reaction between chemical compounds.

B.8 **CAPTURE EFFICIENCY:** The fraction, in percent, of all VOC's generated by a process that is directed to an abatement or recovery device.

B.9 **CLEANING OPERATIONS:** Involves 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.

B.10 **CLEAR COATING:** Any coating that contains no pigments and is labeled and formulated for application over a color coating or clear coating.

B.11 **COATING:** A material, coating or coating component which is applied to a surface and forms a film in order to modify, refinish, beautify, preserve, repair, and/or protect such surface, except metal plating activities.

B.12 **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.

B.13 **CONTROL EFFICIENCY:** The fraction, in percent, of pollution prevented by a control device and the pollution introduced to the control device.

B.14 **ELECTROSTATIC SPRAY APPLICATION:** Any method of spray application of coatings where an electrostatic attraction is created between the part to be coated and the paint particles.

B.15 **EMISSION CONTROL SYSTEM:** Any combination of capture systems and control devices used to reduce VOC emissions from automotive coating operations.

B.16 **EXEMPT COMPOUNDS:** As defined in District Rule 1.1.

B.17 **GRAPHIC DESIGN APPLICATION:** The application of logos, letters, numbers, and graphics to a painted surface, with or without the use of a template by brush, roller, or airbrush.

B.18 **HIGH-VOLUME, LOW-PRESSURE (HVLP) SPRAY EQUIPMENT:** Spray equipment, permanently labeled as such, used to apply coatings by means of a gun which is designed to be operated and which is operated between 0.1 and 10 pounds per square inch, gauge, (psig) air atomized pressure, measured dynamically at the center of the air cap and at the air horns.

B.19 **LACQUER:** A coating that dries primarily by solvent evaporation and is resoluble in its original solvent.

B.20 **METALLIC/IRIDESCENT COLOR COATING:** Any coating which contains

more than 5 g/l (.042 lb/gal) of iridescent particles, composed of metal as metallic particles or silicon as mica particles, as applied, where such particles are visible in the dried film.

B.21 **MOBILE EQUIPMENT:** Equipment which may be drawn or is capable of being driven on rails or on a roadway, including, but not limited to, trains, railcars, truck bodies, truck trailers, camper shells, mobile cranes, bulldozers, street cleaners, and implements of husbandry or agriculture.

B.22 **MOTOR VEHICLE:** Any self-propelled vehicle, including but not limited to, cars, trucks, buses, golf carts, vans, motorcycles, tanks, and armored personnel carriers.

B.23 **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.

B.24 **ORIGINAL EQUIPMENT MANUFACTURING PLANT:** A facility where new motor vehicle(s) or new mobile equipment are completely assembled, including coating of new motor vehicles or new mobile equipment or their associated parts and components.

B.25 **PREP STATION:** Any spraying area that meets the requirements for a "Limited Spraying Area" pursuant to the Uniform Fire Code and that prevents the escape to the atmosphere of overspray particulate matter using properly maintained filters and mechanical ventilation.

B.26 **PRETREATMENT COATING:** Any coating which contains a minimum of one half (0.5) percent acid by weight and not more than 16 percent solids by weight necessary to provide surface etching and is labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and adhesion.

B.27 **PRIMER:** Any coating which is labeled and formulated for application to a substrate to provide: a bond between the substrate and subsequent coats; corrosion resistance; a smooth substrate surface; or resistance to penetration of subsequent coats, and on which a subsequent coating is applied. Primers may be pigmented.

B.28 **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 the underlying coating to resist penetration by the color coating.

B.29 **REDUCER:** Any volatile liquid used to reduce the viscosity of the coating. This liquid may be solvents, diluents or mixtures of both.

B.30 **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.

B.31 **SPOT REPAIR:** Repair of an area on a motor vehicle, piece of mobile equipment, or associated parts or components of less than 1 square foot (929 square centimeters).

B.32 **SPRAY BOOTH:** Any power ventilated structure of varying dimensions and construction provided to enclose or accommodate a spraying operation and which meets the Uniform Fire Code. A spray booth shall confine and limit, by dry or wet filtration, the escape to the atmosphere of overspray particulate matter.

B.33 **TEMPORARY PROTECTIVE COATING:** Any coating which is labeled and formulated for the purpose of temporarily protecting areas from overspray or mechanical damage.

B.34 **TRANSFER EFFICIENCY:** The ratio of the amount of coating solids adhering to the object being coated to the total amount of coating solids sprayed, expressed as a percentage.

B.35 **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.

B.36 **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.

B.37 **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.

B.38 **VOLATILE ORGANIC COMPOUNDS (VOC):** As defined in District Rule 1.1.

B.39 **VOLATILE ORGANIC COMPOUNDS (VOC) CONTENT:** Weight of VOC per volume of material as calculated pursuant to the applicable Sections of F.

C. STANDARDS

C.1 **LIMITS:** No person shall apply to any motor vehicle, mobile equipment, or associated parts and components, any coating with a VOC regulatory content, as calculated pursuant to section F.1.i.1, in excess of the following limits, except as provided in Section C.4:

Coating Category	Regulatory VOC Content g/l (lb/gal)
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)
Any Other Coating Type	250 (2.1)

C.2 **MOST RESTRICTIVE VOC LIMIT:** 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 supplied by a person, any representation is made that indicates that the coating meets the definition of or is recommended for use for more than one of the coating categories listed in Section C.1, then the lowest VOC content limit shall apply.

C.3 **APPLICATION REQUIREMENTS:**

a. No person shall apply any coating to any motor vehicle, mobile equipment, or associated parts and components unless one of the following application methods is used:

1. Brush, dip, or roller;

2. Electrostatic spray application equipment, operated in accordance with the manufacturer's recommendations;

3. High Volume Low Pressure (HVLP) spray equipment, operated

in accordance with the manufacturer's recommendations;

4. Spray gun, demonstrated to meet the HVLP definition in Section B.18 in design and use;

5. Any other equivalent coating application method which has been demonstrated to have a transfer efficiency equivalent to or higher than, the application methods listed in this Section, as determined per subsection F.1.b, Determination of Transfer Efficiency, and which has been submitted to and approved in writing prior to use by the Air Pollution Control Officer.

C.4 **EMISSION CONTROL SYSTEM:** In lieu of complying with VOC content limits of Section C.1, a person may use a VOC emission control system that controls emissions from the source operation provided the following conditions are met:

a. The VOC emission control system shall be approved in writing by the Air Pollution Control Officer.

b. The VOC emission control system shall be operated with an overall control efficiency (capture and control), as determined in Sections F.1.c and F.1.d, of at least 85 percent by weight, during periods of emission producing activity. The approved emission control system must be maintained and used at all times in proper working condition.

c. Submit an Operation and Maintenance Plan at least 90 days in advance of the date on which VOC emission control system is to be used in lieu of compliance with VOC content limitations. The Plan shall specify operation and maintenance procedures which will demonstrate continuous operation and compliance of the emissions control equipment during periods of emissions-producing operations. The Plan shall also specify which daily records must be kept to document these operations and maintenance procedures. These records shall comply with the requirements of Section E.2. The Plan shall be implemented upon approval by the Air Pollution Control Officer.

d. Submittal of an application for Authority to Construct per Rule 4.0, GENERAL REQUIREMENTS, prior to control system construction.

C.5 **SPRAY BOOTH AND PREP STATIONS:** No person shall apply any coating to any motor vehicle unless that application is performed within a properly maintained and operated Spray Booth. All spraying of parts or components of a vehicle shall be done in a properly maintained and operated Prep Station or Spray Booth.

C.6 **COATINGS CONTAINING CADMIUM, HEXAVALENT CHROMIUM OR 1,1,1-TRICHLOROETHANE:** No person shall apply a coating to any motor vehicle, mobile equipment, or associated parts and components, containing cadmium, hexavalent chromium or 1,1,1-Trichloroethane.

D. ADMINISTRATIVE REQUIREMENTS

D.1 **PROHIBITION OF POSSESSION:** After December 31, 2017, no person shall possess at any automotive refinishing facility, any VOC-containing product that is not in compliance with Section C.1 or C.4, as applicable.

D.2 **PROHIBITION OF SPECIFICATION:** No person shall solicit or require for use or specify the application of any coating or solvents to a motor vehicle, mobile equipment, or part or component if such use results in a violation of the provisions of this rule. The prohibition of this Section will apply to all written or oral contracts, including but not limited to, job orders, under the terms of which any coating which is subject to the provisions of this rule is to be applied to any motor vehicle, mobile equipment, or part or component at any physical location within the District.

D.3 **PROHIBITION OF SALE OR MANUFACTURE:**

a. After July 31, 2017, no person shall manufacture, blend, repackage for sale, supply, sell, offer for sale or distribute within the District, any coating with a VOC content in excess of the limits specified in Section C.1. This shall apply to the sale of any coating which will be applied at any physical location within the jurisdiction of the District.

b. The provision of Section D.3.a shall not apply to the application of coatings where either:

    1. The product is used exclusively within an emission control systems as allowed in Section C.4;

    2. For coatings for use outside of the District.

D.4 **VOC COMPLIANCE STATEMENT REQUIREMENT:** The manufacturer or repackager of automotive coatings and automotive coating components and solvents subject to this rule shall provide the following product information to the purchaser, on product data sheets, or equivalent medium (including in electronic or web media format), for each coating, coating component, solvent, and ready to spray mixture:

a. VOC actual content and VOC regulatory content, expressed in grams per liter or pounds per gallon;

b. Weight percentage of volatiles, water, and exempt compounds;

c. Volume percentage of water and exempt compounds;

d. Density of the material, in grams per liter.

D.5 **LABELING REQUIREMENTS:** The manufacturer and repackager of automotive coatings or automotive coating components shall include on all containers the applicable use category(ies), and the VOC actual for coatings and VOC regulatory for coatings, as supplied, expressed in grams per liter.

D.6 **HVLP MARKING:** A person shall not sell, offer for sale, or distribute for use within the District any HVLP gun without a permanent marking, or accurate information provided on company letterhead or in the form of technical literature clearly identifying the spray gun manufacturer, salesperson or distributer, denoting the maximum inlet air pressure in psig at which the gun will operate within its designed specifications as defined in Section B.18 of this Rule.

E. MONITORING AND RECORDS

E.1 **USER COATING RECORDS:** Operators of facilities subject to this Rule shall maintain, and have available at all times on the site, the following:

a. A current listing of all VOC containing materials in use at their facility. This listing shall include, for each product:

1. Material name and manufacturer identification;

2. Application method;

3. Material type (applicable use category(ies)), mix ratio, and specific use instructions;

4. Specific mixing instructions;

5. VOC actual content and VOC regulatory content.

b. Current manufacturer specification sheets, safety data sheets, technical data sheets, or air quality data sheets, which list the actual VOC content for coatings and regulatory VOC content

for coatings of each ready-to-spray coating (based on the manufacturer's stated mix ratio) and automotive coating components, and the VOC content of each solvent.

c. The person shall maintain records on a daily basis including the following information:

1. Coating and mix ratio of components in the coating used.

2. Quantity of each coating applied.

d. Purchase records identifying the coating type, name, and volume of coating.

E.2 **EMISSION CONTROL EQUIPMENT RECORDS:** If compliance with this rule is achieved through the use of an emission control system, in addition to the provisions of Section E.1, the owner or operator shall maintain:

a. Daily usage records of all materials used such as coatings, catalysts, additives, and reducers.

b. Daily records of key operating parameters such as temperatures, pressures, flowrates, and hours of operation of the control device to verify compliance of the capture and control device.

c. Maintenance work which interferes with the operation of the control device.

E.3 **SALES RECORDS:** Any person within the District selling coatings subject to this Rule shall maintain the following records for on-site sales, for a three-year period, and make such records available on request to the Air Pollution Control Officer:

a. Total Product name and volume;

b. Total VOC content and material type (applicable use category(ies)). This information must be available on-site, and does not need to be included in each sales transaction;

c. All Date(s) of sale.

d. In Addition, for business sales keep the following records:

1. Business name, street address, phone number, and either business license or driver's license.

E.4 **PROHIBITION OF SALE OR MANUFACTURE:** Any person claiming an exemption under Section D.3.b shall keep a detailed log of each automotive coating component and automotive coating manufactured, blended, repackaged for sale, supplied, sold, offered for sale, or distributed showing:

a. The quantity manufactured, blended, repackaged for sale, supplied, sold, offered for sale, or distributed, including size and number of containers;

b. The regulatory VOC content for coatings;

c. The actual VOC content for coatings;

d. To whom they were supplied, sold, offered for sale, or distributed, or for whom they were manufactured, blended, or repackaged for sale including the name, address, phone number, retail tax license number, and valid District permit number; and

e. The specific exemption being utilized under Section D.3.b.

E.5 **BURDEN OF PROOF:** Any person claiming an exemption pursuant to Section A.4 shall have information available which may include product data or safety data sheets or other records that allow the Air Pollution Control Officer to verify eligibility of the exemption.

E.6 **MAINTENANCE OF RECORDS:** All records required by this Rule shall be maintained on site for a period of three years and made available to the District Personnel upon request.

F. TEST METHODS AND CALCULATIONS

F.1 The following test methods are incorporated by reference, and shall be used to test coatings and solvents subject to the provisions of this rule. A source is in violation of this rule if any measurement by any of the listed applicable test methods exceeds the standards of this rule.

a. Determination of VOC Content: The VOC content of coatings or solvents, subject to the provisions of this Rule, shall be determined by procedures contained in U.S. EPA Reference Test Method 24 (40 CFR 60), "Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings".

b. Determination of Transfer Efficiency: Transfer efficiency as

required in Section C.3 of this rule shall be determined in accordance with the South Coast Air Quality Management District Test Method "Spray Equipment Transfer Efficiency (TE) Test Procedure for Equipment User," May 24, 1989, or other equivalent method which has been approved in writing by the Air Pollution Control Officer and submitted to and approved by U.S. EPA.

c. Determination of Control Efficiency: Control efficiency as required by Section C.4 of this rule, shall be determined in accordance with U.S. EPA Method 25 25A, or 25B; and U.S. EPA Method 2 or 2C (whichever is applicable). U.S. EPA Method 18 or CARB Method 422 "Determination of Volatile Organic Compounds Emissions from Stationary Sources" may be used to determine emissions of exempt compounds.

d. Determination of Capture Efficiency: Capture efficiency as required in Section C.4 of this rule, shall be determined by and reported in accordance with U.S. EPA "Guidelines for Determining Capture Efficiency", January 9, 1995, and 40 CFR 51, Appendix M, Methods 204-204f, as applicable.

e. Determination of Acid Concentration: Acid concentration in pretreatment wash primer as defined in Section B.26, of this rule shall be determined by ASTM Test Method D-1613-06 "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products", 2006.

f. HVLP Equivalency: Spray equipment HVLP equivalency shall be determined using South Coast Air Quality Management District "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficiency Spray Guns", September 26, 2002.

g. Determination of Exempt Compounds: Measurement of exempt compounds shall be determined by using CARB Method 432, "Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings," September 12, 1998"; ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources", January 22, 1987; or South Coast Air Quality Management District Method 303-91, "Determination of Exempt Compounds", February 1993.

h. Determination of Methyl Acetate, Acetone, t-Butyl Acetate, and parachlorobenzotrifluoride (PCBTF) Content: Measurement of methyl acetate, acetone t-butyl acetate and PCBTF, shall be determined using ASTM D6133-02, "Standard Test Method for Acetone, p-chlorobenzotrifluoride, Methyl Acetate or tButyl Acetate Content of Solventborne and Waterborne Paints,

Coatings, Resins, and Raw Materials by Direct Injection into a Gas Chromatograph", February 2003.

i. Calculation of VOC Content: The VOC content per volume of coating shall be calculated as follows:

1. VOC Regulatory Content: The weight of VOC per combined volume of VOC and coating solids, calculated with the following equation:

$$VOC_{con} = (W_s - W_w - W_{ec}) / (V_m - V_w - V_{ec})$$

2. VOC Actual Content: The weight of VOC per volume of material, calculated with the following equation:

$$VOC_{con} = W_s - W_w - W_{ec}) / V_m$$

Where:

W_s	=	Weight of volatile compounds in grams
W_w	=	Weight of water in grams
W_{ec}	=	Weight of exempt compounds in grams
V_m	=	Volume of material in liters
V_w	=	Volume of water in liters
V_{ec}	=	Volume of exempt compounds in liters

j. Multiple Test Methods: When more than one test method or a set of test methods is 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 this rule.

k. Alternative Test Methods: The use of other test methods which are determined to be equivalent or better and approved, in writing, by the U.S. EPA may be used in place of test methods specified in this rule.