RULE 423.  MOTOR VEHICLE AND MOBILE EQUIPMENT COATING OPERATIONS  

A. APPLICABILITY AND PURPOSE. The provisions of this Rule apply to any person who manufactures, distributes, supplies, sells, offers for sale, applies, or specifies the use of automotive coatings for motor vehicles, mobile equipment, and their parts or components. The purpose of this Rule is to limit volatile organic compound (VOC) emissions from coatings and solvents used in production, repair, refinish or maintenance operations where motor vehicles, mobile equipment, and associated parts and components are coated.

B. DEFINITIONS. For the purposes of this Rule the following definitions shall apply:

1. “Adhesion Promoter”: Any 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”: Any 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.

3. “Associated Parts and Components”: Structures, devices, pieces, modules, sections, assemblies, subassemblies, or elements of motor vehicles or mobile equipment which may or may not be attached to motor vehicles or mobile equipment at the time of coating. Circuit boards are not included.

4. “Automotive Coating”: Any coating or coating component used or recommended for use in motor vehicle or mobile equipment coating, 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 the product literature constitutes a recommendation for use in motor vehicle or mobile equipment coating and associated activities.

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.

6. "Catalyst": A substance whose presence initiates the reaction between chemical compounds.

7. “Cleaning Operations”: The removal of uncured adhesives, inks or coatings, or contaminants, including but not limited to, dirt, soil or grease, from motor
vehicles, mobile equipment, associated parts and components, parts, products, tools, machinery, equipment, or general work areas. Cleaning operations include, but are not limited to, substrate surface preparation and spray gun cleaning, and exclude janitorial cleaning.

8. "Clear Coating": Any coating that contains no color-producing pigments and is labeled and formulated for application over a color or clear coating.

9. "Coating": A material which is applied to a surface and forms a film in order to beautify, preserve, repair, or protect such a surface.

10. “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.

11. "Electrophoretic Dip": A coating application method where the coating is applied by dipping the component into a coating bath and an electrical potential difference exists between the component and the bath.

12. "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.

13. "Enclosed Gun Washer": A device that is used for the cleaning of spray guns, pots, and hoses, that has an enclosed solvent container, is not open to the ambient air when in use, and has a mechanism to force the cleanup material through the gun while the cleaner is in operation.

14. "Exempt Compounds": Any compound specifically excluded from the definition of Volatile Organic Compound (VOC) in the current version of District Rule 105, Definitions.

15. "Grams of VOC per Liter of Coating Less Water and Less Exempt Compounds" (VOC Regulatory): The weight of VOC per combined volume of VOC and coating solids, calculated by the following equation:

\[
\text{Grams of VOC per Liter of Coating less Water and Exempt Compounds} = \frac{W_s - W_w - W_{ec}}{V_m - V_w - V_{ec}}
\]

Where:  
- \( W_s \) = Weight of volatile compounds (grams)  
- \( W_w \) = Weight of water (grams)  
- \( W_{ec} \) = Weight of exempt compounds (grams)  
- \( V_m \) = Volume of coating material (liters)  
- \( V_w \) = Volume of water (liters)  
- \( V_{ec} \) = Volume of exempt compounds (liters)
16. "Grams of VOC per Liter of Material" (VOC Actual): The weight of VOC per volume of material and is calculated by the following equation:

\[
\text{Grams of VOC per Liter} = \frac{W_s - W_w - W_{ec}}{V_m}
\]

Where:
- \(W_s\) = Weight of volatile compounds (grams)
- \(W_w\) = Weight of water (grams)
- \(W_{ec}\) = Weight of exempt compounds (grams)
- \(V_m\) = Volume of coating material (liters)

17. "Gun Washer": Electrically or pneumatically operated system designed and operated to reduce VOC emissions while cleaning spray equipment. A gun washer may also consist of spraying solvent through the spray gun into an enclosed container with a leak-free seal.

18. "Hand Application Methods": The application of coatings by non-mechanical hand-held equipment including but not limited to paint brushes, hand rollers, caulking guns, trowels, spatulas, syringe daubers, rags, and sponges.

19. "High-Volume, Low-Pressure Application (HVLP)"; Spray equipment which is designed to operate and is operated using a high volume of air delivered at atomized air pressures between 0.1 and 10 per square inch gauge (psig) measured dynamically at the center of the air cap and at the air horns and which operates at a maximum fluid delivery pressure not exceeding the manufacturer's recommended inlet air pressure. Detail HVLP spray equipment has a fan pattern of 2 to 5 inches, a nozzle size less than or equal to 1.0, and a cup that holds 4.0 fluid ounces or less.

20. "Metallic/Iridescent Topcoat": Any coating which contains more than 5 g/L (0.042 lb/gal) of iridescent particles composed of metal or metallic particles, such as mica or silicon, as applied, where such particles are visible in the dried film.

21. "Mobile Equipment": Any equipment which may be drawn or is capable of being driven on a roadway, including, but not limited to, truck bodies, truck trailers, camper shells, mobile cranes, bulldozers, construction and farm heavy equipment, concrete mixers, street cleaners, golf carts, all terrain vehicles, implements of husbandry, and hauling equipment used inside and around airports, docks, depots, and industrial and commercial plants, excluding utility bodies.

22. "Motor Vehicle": A vehicle which is self-propelled and which is physically capable of being driven on a highway, as defined in Division 1, Section 415 of the California Vehicle Code, including but not limited to: cars, trucks, buses, golf carts, vans, motorcycles, tanks, or armored personnel carriers.
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.

24. "Portable Coating Operation": Portable motor vehicle or mobile equipment coating operations which are subject to this rule and which occur at non-permitted locations. Portable coating operations are conducted by operators who travel with their coating equipment and move between customer locations. A non-permitted location for this definition means that the site, where the coating takes place, does not have an Air Pollution Control District Permit to Operate for coating motor vehicles or mobile equipment, and is not used by the coating operator as a fixed operating location.

25. "Pretreatment Coating": Any coating which contains a minimum of 0.5% acid, by weight, and not more than 16% solids by weight, and is necessary to provide surface etching and is labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and adhesion.

26. "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.

27. "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.

28. "Reducer": Any volatile organic liquid used to reduce coating viscosity.

29. "Repair": Recoating portions of a recently coated motor vehicle wherein the coating has been damaged following the normal coating operation.

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 both single-stage metallic/iridescent coatings and single-stage nonmetallic or non-iridescent coatings.

31. “Solvent”: A VOC-containing material used to perform cleaning operations.

32. "Spot Primering": Small area application of a primer material to prevent rust or fill surface irregularities prior to the application of subsequent coatings.

33. “Spot Repair”: The repair of an area on a motor vehicle, piece of mobile equipment, or associated parts or components of less than 1 square foot.
34. "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, exhaust through filters or other air pollution control device approved by the Air Pollution Control Officer (APCO), and provide adequate ventilation, air velocity, and safety features, as required by the Uniform Fire Code.

35. “Stationary Coating Operation”: Stationary motor vehicle or mobile equipment coating operations which are subject to this rule and which occur at permitted locations. A permitted location for this definition means that the site, where the coating takes place, has an Air Pollution Control District permit for coating motor vehicles or mobile equipment.

36. "Surface Preparation": The use of VOC containing solvents applied with cloth, sponge, or other medium for the purpose of removing dust, grease, and other contaminants from a surface just prior to application of a coating.

37. "Temporary Protective Coating": Any coating which is labeled and formulated for the purpose of protecting areas from overspray or mechanical damage.

38. “Touch-up”: Coating operation incidental to the main coating process necessary to cover minor imperfections, as applied by airbrush, brush or detail HVLP spray equipment.

39. "Transfer Efficiency": The ratio of the weight of coating solids which adhere to the object being coated to the weight of coating solids used in the application process, expressed as a percentage.

40. “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.

41. “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.

42. “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.

43. "Volatile Organic Compound (VOC)”: As defined in the current version of District Rule 105, Definitions.

44. “VOC Actual for Coatings”: This means the same as “Grams of VOC per Liter of Material,” which does not involve subtraction of water or exempt organic compounds as is performed in the VOC regulatory calculation.
“VOC Regulatory for Coatings”: This means the same as “Grams of VOC per Liter of Coating Less Water and Exempt Organic Compounds.”

C. **EXEMPTIONS**

1. The requirements of this Rule shall not apply to any automotive coating or associated solvent that is offered for sale, sold, or supplied in 0.5 fluid ounce or smaller containers intended to be used by the general public to repair tiny surface imperfections, or any hand-held non-refillable aerosol cans of 18 ounces or less.

2. Any coating or cleaning operation subject to the requirements of this Rule shall be exempt from the requirements of District Rule 411, Surface Coating of Metal Parts and Products, and District Rule 407, Organic Materials.

3. The following Subsections of this Rule shall not apply to the coating of a motor vehicle or mobile equipment by the resident of a one or two family dwelling, if that resident is the registered owner of the vehicle or equipment being painted: D.3, Spray Booth, D.4, Coating Application Methods, and E, Recordkeeping. Only VOC compliant coatings shall be used. The operation shall not cause a public nuisance and shall be in compliance with local fire protection agency requirements.

4. Subsection D.3, Spray Booth, shall not apply to repair, touch-up, or spot-priming operations which do not exceed a total of nine square feet per motor vehicle, and which are done either at a facility with a permitted spray booth or by a Portable Coating Operation. All such operations shall be conducted under a District Permit to Operate for a facility or for a Portable Coating Operation.

5. Coating operations which cannot be reasonably conducted in an available spray booth due to the size and shape of the motor vehicle or mobile equipment may be exempted from Subsection D.3, Spray Booth, on a case-by-case basis with prior written approval of the APCO.

6. The application of chip resistant or underbody coatings is not subject to Subsection D.4, Coating Application Methods.

7. Subsection D.2.d, Surface Preparation and Cleanup Solvent, shall not apply to the use of surface preparation solvents to clean plastic parts just prior to coating or VOC-containing materials for the removal of wax and grease provided that non-aerosol, hand-held spray bottles are used with a maximum solvent VOC content of 780 g/L and the total volume of the solvent does not exceed 20 gallons per year per facility. Records of solvent usage shall be kept in accordance with Subsection E.1.d of this Rule.

8. Subsection D.7 of this Rule shall not apply to any coating shipped outside of the District for use outside of the District.
9. Subsection D.7 of this Rule shall not apply to the sale of coatings for use exclusively with APCO-approved add-on control equipment that meets the requirements of Subsection D.14.

D. REQUIREMENTS

1. VOC Regulatory Limits: After the applicable effective date indicated in Table 1 below, no person shall apply a coating to any motor vehicle, mobile equipment or their parts and components, using any coating with a VOC regulatory content in excess of the following limits, expressed as grams of VOC per liter (pounds per gallon) of coating applied, excluding water and exempt compounds:

<table>
<thead>
<tr>
<th>Coating Category</th>
<th>Effective November 19, 2008</th>
<th>Effective July 1, 2009</th>
<th>Effective July 1, 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>grams/liter</td>
<td>pounds/gallon</td>
<td>grams/liter</td>
</tr>
<tr>
<td>Adhesion Promoter</td>
<td>840</td>
<td>7.0</td>
<td>540</td>
</tr>
<tr>
<td>Clear Coating</td>
<td>540</td>
<td>4.5</td>
<td>250</td>
</tr>
<tr>
<td>Color Coating</td>
<td>540</td>
<td>4.5</td>
<td>420</td>
</tr>
<tr>
<td>Multi-Color Coating</td>
<td>840</td>
<td>7.0</td>
<td>680</td>
</tr>
<tr>
<td>Pretreatment Coating</td>
<td>780</td>
<td>6.5</td>
<td>660</td>
</tr>
<tr>
<td>Primer</td>
<td>580</td>
<td>4.8</td>
<td>250</td>
</tr>
<tr>
<td>Primer Sealer</td>
<td>550</td>
<td>4.6</td>
<td>340</td>
</tr>
<tr>
<td>Single-Stage Coating / Nonmetallic-Noniridescent</td>
<td>420</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>Single-Stage Coating / Metallic-iridescent</td>
<td>540</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>Temporary Protective</td>
<td>60</td>
<td>0.5</td>
<td>60</td>
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<tr>
<td>Truck Bed Liner Coating</td>
<td>840</td>
<td>7.0</td>
<td>430</td>
</tr>
<tr>
<td>Underbody Coating</td>
<td>840</td>
<td>7.0</td>
<td>540</td>
</tr>
<tr>
<td>Uniform Finish Coating</td>
<td>840</td>
<td>7.0</td>
<td>250</td>
</tr>
<tr>
<td>Any other coating type</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Surface Preparation and Cleanup Solvent: The requirements of this Subsection shall apply to any person using organic solvent for surface preparation and cleaning operations.

   a. Closed containers approved by the local fire agency shall be used for the storage or disposal of solvent-containing cloth or paper used for surface preparation and cleanup. Containers shall be nonabsorbent.

   b. All VOC containing materials, including but not limited to, fresh or spent solvent, coatings, and reducers, shall be kept in approved, closed containers when not in use.

   c. No person shall use materials containing VOCs for spray equipment cleanup unless:

      1) An enclosed gun washer is properly used for cleaning, or

      2) A gun washer, approved by the APCO, is properly used for cleaning and the composite vapor pressure of materials used is less than 45 mm Hg (0.87 psi) at a temperature of 20 degrees Celsius (68° F).
d. Prior to January 1, 2010, no person shall use VOC-containing materials which have a VOC content of more than 200 g/L (1.7 lb/gal) of material for substrate surface preparation just prior to coating. Effective January 1, 2010, no person shall use a solvent for any cleaning operation if its actual VOC content exceeds 25 g/L (0.21 lb/gal), including spray equipment cleaning and substrate surface preparation not exempted by Subsection C.7.

3. **Spray Booth**: No motor vehicles, mobile equipment, or their components shall be painted, in whole or in part, without using an approved spray booth constructed in a manner consistent with the Uniform Fire Code, except as noted in Section C, Exemptions. Except as otherwise allowed by this Rule, all coating must be conducted in a spray booth. All spray booths must be approved by the local fire agency. Particulate emissions from all spray booths must be controlled by filtration or other APCO-approved method by at least 98%. Filtering or removal efficiency must be verified by manufacturer's technical data sheet or equivalent documentation and retained on site for inspection by the District.

4. **Coating Application Methods**: No person shall apply any coating to any motor vehicle or mobile equipment or their exterior parts and components unless one of the following methods is properly used:

   a. Hand application methods including, but not limited to: brush, dip or roller;
   b. Electrophoretic Dip coating;
   c. Electrostatic application, operated at a minimum of 60 KV;
   d. High-Volume, Low-Pressure (HVLP) application; or
   e. Any other coating application method which has been demonstrated to the United States Environmental Protection Agency or the APCO to be capable of achieving at least 65 percent transfer efficiency or the equivalent efficiency of HVLP.

5. **Coating Outside of a Spray Booth**: Effective January 1, 2010, all Portable Coating Operations shall be done using a hand application method, or air brush or detail HVLP spray equipment with a container that holds 4.0 fluid ounces or less.

6. **Prohibition of Specification**: No person shall solicit, require for use, or specify the application of any coating or solvent on a motor vehicle or mobile equipment, or associated parts and components if such use or application results in a violation of the provisions of this Rule. The prohibition of this Subsection shall apply to all written or oral contracts 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 their parts and components at any physical location within the District.
7. **Prohibition of Sale or Manufacture:** No person shall manufacture, blend, repackage for sale, supply, sell, offer for sale, or distribute within the District any coating, except hand-held, nonrefillable aerosol cans of 18 ounces or less, with a VOC content in excess of the limits specified in Subsection D.1 of this Rule.

8. **Compliance Statement Requirement:** The manufacturer of coatings subject to this Rule shall include VOC designations, as supplied, including coating components, expressed in grams per liter or pounds per gallon, excluding water and exempt compounds, on labels or data sheets. This designation shall include a statement of manufacturer's recommendation regarding thinning, reducing, or mixing with any other VOC containing materials. This statement shall include a designation of VOC on an as-applied basis, excluding water and exempt compounds based on the manufacturer's recommendations. Omission of this designation shall constitute a violation of this Rule.

9. **HVLP Gun Sales:** No person shall sell or offer for sale for use within the District any HVLP gun without a permanent marking denoting that the gun is HVLP or including the manufacturer's written statement that the gun is HVLP.

10. **Customer Sales Information:** Any person selling or supplying solvents or coatings within the District and subject to this Rule shall make and retain complete receipts of all customer solvent and coating purchases, including cash sales, recording the customer's name, business or home address, and telephone number; the type, amount, and VOC content of each subject product, as sold; date of sale; and manufacturer's name and part number. If a customer refuses to provide this information, the receipt shall be marked "Refused" in the area designated for customer information, unless such information can be provided by the seller or supplier, provided the seller or supplier shall retain all of the other required information. These records shall be retained for at least three (3) years and made available for District inspection and copying upon request.

11. **Temporary Protective Coating:** No person shall sell or use a temporary protective coating (masking liquid) that has a VOC content of greater than 60 g/L (0.50 lb/gal).

12. **Hexavalent Chromium or Cadmium:** No person shall apply any coating to any motor vehicle, mobile equipment, or their parts or components, if that coating contains hexavalent chromium or cadmium.

13. **1,1,1-Trichloroethane:** No person shall apply any coating to any motor vehicle, mobile equipment, or their parts or components, if that coating contains 1,1,1-trichloroethane.

14. **Add-On Control Equipment Option:** A person may comply with the provisions of Section D by using air pollution control equipment provided that:
a. The emissions collection device shall capture at least 90 percent, by weight, of all the organic emissions from the source to the control equipment,
b. The abatement device shall reduce the organic emissions by at least 95 percent, by weight, and
c. Written approval for such equipment is received from the APCO prior to the installation.

E. RECORDKEEPING REQUIREMENTS

1. Any owner or operator of a coating operation subject to this Rule shall:

   a. Maintain and have available during an inspection a current list of all coatings in use at their facility. The list shall provide the data necessary to evaluate compliance for each coating, including the following information, as applicable:

      1) The coating manufacturer and part number.
      2) Coating, catalyst, and reducer used.
      3) Mix ratio of components used.
      4) VOC content of coating, as applied.
      5) The coating category from Subsection D.1, VOC Regulatory Limits.

   b. Maintain purchase records identifying the name, part number, amount, and VOC content for each VOC containing material purchased or received.

   c. Maintain a summary of the total monthly VOC emissions for the calendar year beginning on January 1. This VOC emissions summary shall be categorized by coating type. The summary may be determined from purchase invoices or usage records.

   d. Record on a monthly basis the type and amount of solvent used for cleanup and surface preparation. If purchase records are used to determine the amount of solvents used, then records and manifests of the amounts of solvents disposed of or sent to a recycler must also be maintained and made available to the APCO upon request. For solvents claimed for exemption under Subsection C.7, the following records shall be maintained:

      1) A list of all exempt surface preparation solvents used or to be used, including: name of product, product number, product manufacturer and container sizes, and
      2) The name of the vendor for each exempt surface preparation solvent.

   e. Have current manufacturer's specification sheets, material safety data sheets (MSDS), or technical data sheets, which list the VOC content of each material available for review on site.
f. Retain and make available all records from the previous three (3) year period for inspection by District personnel.

2. **Recordkeeping Requirements for Prohibition of Sale:** Any person claiming an exemption as specified in Subsection C.8 or C.9 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 VOC regulatory for coatings;
   c. The VOC actual 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 C.

3. **Recordkeeping Requirements for Add-on Control Equipment:** Any person using add-on control equipment to comply with the provisions of Section D shall maintain records of key system operating parameters which will demonstrate continuous operation and compliance of the emission control system during periods of VOC emission producing activities. “Key System operating parameters” are those parameters necessary to ensure or document compliance with Subsection D.14, including, but not limited to, temperatures, pressure drops, and air flow rates.

**F. TEST METHODS.** The following test methods are incorporated by reference herein, and shall be used to test emission sources 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 any standard of this rule.

1. **VOC Content of Coatings or Solvents:** Coating VOC content shall be determined using EPA Method 24 (40 CFR Part 60 Appendix A, “Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings”). Compliance with Subsection D.7, Prohibition of Sale, shall be determined by measuring the VOC content of each and every component of a coating or coating system which has been reduced using the manufacturer’s recommended type and maximum amount of reducer.

2. **Exempt Organic Compound Content of Coatings:** The exempt organic compound content of coatings or solvents shall be determined using ASTM Method D 6133-02, 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 Chromatograph. Exempt organic compound content, other than as determined above, shall be determined by using CARB Method 432, “Determination of Dichloromethane and 1,1,1-
Trichloroethane in Paints and Coatings” (September 12, 1998); CARB Method 422, “Determination of Volatile Organic Compounds in Emissions from Stationary Sources” (January 22, 1987); or South Coast AQMD Method 303-91, “Determination of Exempt Compounds” (February 1993).

3. The measurement of acid content of pretreatment coatings shall be done in accordance with ASTM Method D 1613-03, Standard Test Method for Acidity in Volatile Solvents, and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products.

4. The measurement of the metal and silicon content of metallic/iridescent coatings shall be determined by Method 311 (Determination of Percent Metal in Metallic Coatings by Spectrographic Method) of the SCAQMD "Laboratory Method of Analysis for Enforcement Samples."

5. The presence of hexavalent chromium in a coating shall be determined using ASTM Method D 3718-85a.

6. The presence of lead or cadmium in a coating shall be determined using ASTM Method D 3335-85a.

7. **Control and Capture Efficiency**: The capture and control efficiency of emission control systems shall be determined as specified in U.S. EPA’s “Guidelines for Determining Capture Efficiency,” (January 9, 1995) and 40 CFR 51, Appendix M, Methods 204-204f as applicable. Total organic emissions of emission control systems shall be determined using EPA Method 25, 25A or 25B.

8. **Transfer Efficiency**: Spray equipment transfer efficiency shall be determined by using South Coast AQMD’s “Spray Equipment Transfer Efficiency Test Procedure for Equipment User,” (May 24, 1989).

9. **HVLP Equivalency**: Spray Equipment HVLP equivalency shall be determined by using South Coast AQMD’s “Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns” (September 26, 2002).

10. **Alternative Test Methods**: The use of other test methods may be used in place of test methods specified in this rule if they are determined to be equivalent or better and approved, in writing, by the Air Pollution Control Officer, CARB and U.S. EPA.