Notes:

1. This draft proposed 2009 MVMERR Model Rule is a revision of the 2002 MERR Model Rule developed by the Ozone Transport Commission (OTC) as part of a regional effort to attain and maintain the one-hour ozone standard, address emission reduction shortfalls that were identified by the U.S. Environmental Protection Agency in specific States' plans to attain the one-hour ozone standard, and reduce eight-hour ozone levels. A June 1, 2000, Memorandum of Understanding (MOU) designated the list of control measures evaluated as part of this regional effort.

2. References to H6 MACT are references to the National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources; Final Rule published January 9, 2008 (73 FR 1738). This MACT promulgates national emission standards for hazardous air pollutants for autobody refinishing paint shops. Certain terms from the MACT are added as options in this model rule for the OTC STATES to decide individually whether to provide consistency with the MACT and reduce the differences between the different rules with which the regulated community must comply.

3. This draft proposed 2009 MVMERR Model Rule is being reviewed by the OTC at its November XX, 2008, Winter Meeting.

4. <u>Underlined text (additions)</u> and strikeouts (deletions) are changes made to the original OTC MERR Model Rule dated March 6, 2001.

5. **BOLDED** text is used for section and subsection titles or refers to agencies outside the OTC states or to special points of interest.

6. The terms [OTC STATE] and [OTC STATE AGENCY] are placeholders for individual State and State Agency names.

7. The compliance date and sell-through date are noted as 20XX to allow the OTC Member States flexibility to decide on these dates during their rulemaking process.

8. Please note that States opting to promulgate rules based on this model rule must comply with State specific administrative requirements and procedures.

Model Rule for Mobile Equipment Repair and Refinishing (MERR) Model Rule for Motor Vehicle and Mobile Equipment Refinishing and Recoating

PART Env-A xxxx MOBILE EQUIPMENT REPAIR AND REFINISHING

01 Definitions

02 Standards

1. Purpose.

The purpose of this rule is to limit volatile organic compound (VOC) emissions from automotive coatings and solvents associated with the refinishing or recoating of motor vehicles, mobile equipment, and their associated parts and components.

2. Applicability.

2.1 Beginning January 1, 20XX, except as provided in subsection 2.2, the requirements of this rule apply to the following:

2.1.1 A person who supplies, sells, offers for sale, manufactures, or distributes an automotive coating or associated solvent for use within [OTC STATE].

2.1.2 A person who uses, applies, or solicits the use or application of an automotive coating or associated solvent within [OTC STATE].

2.2 This rule does not apply to:

2.2.1 An automotive coating or associated solvent that is offered for sale, sold, or manufactured for use outside of [OTC STATE].

2.2.2 An automotive coating or associated solvent that is shipped to other manufacturers for reformulation or repackaging.

2.2.3 An aerosol coating product.

2.2.4 An 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.

2.2.5 A coating applied to motor vehicles or mobile equipment or their associated parts and components during original equipment manufacture on an assembly line.

2.2.6 An automotive coating used in a surface coating process that is subject to [cite other state rules, as appropriate]. [OTC STATE OPTION]

2.2.7 An automotive coating applied to motor vehicles or mobile equipment or their associated parts and components by a person who does not receive compensation for the application of the coating. [OTC STATE OPTION]

Env-A xxxx.01 <u>3.</u> **Definitions.** The following words, terms, and abbreviations used in this part (subchapter) <u>rule</u> shall have the following meanings:

[Note: Each OTC State should carefully review the terms and definitions that are proposed for deletion to determine if these terms and definitions are needed for other regulations in their state.]

<u>3.1 Adhesion promoter-An automotive coating labeled and formulated to be applied to uncoated plastic surfaces to facilitate bonding of subsequent coatings and on which a subsequent coating is applied.</u>

<u>3.2 Aerosol coating product-A pressurized coating product containing pigments or</u> 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/marking applications.</u>

3.xx Air-assisted airless spray- Air-assisted airless spray uses compressed air to shape and distribute the fan of atomized paint, but still uses fluid pressure to create the atomized paint. [OTC STATE option – this term and definition is taken from the H6 MACT definition of "airless and air-assisted airless spray".]

(a) <u>3.3</u> Airless spray—A spray coating method in which the coating is atomized by forcing it through a small nozzle opening at high pressure. The coating is not mixed with air before exiting from the nozzle opening. [Optional term and definition, used in subsection 4.8, coating application methods; may be deleted by OTC State]

[OTC STATE Option: This is the definition of "airless and air-assisted airless spray" in the H6 MACT rule:

Airless and air-assisted airless spray means any paint spray technology that relies solely on the fluid pressure of the paint to create an atomized paint spray pattern and does not apply any atomizing compressed air to the paint before it leaves the paint nozzle. Air-assisted airless spray uses compressed air to shape and distribute the fan of atomized paint, but still uses fluid pressure to create the atomized paint.]

(b) Antique motor vehicle—A motor vehicle, but not a reproduction thereof, manufactured more than 25 years prior to the current year which has been maintained in or restored to a condition which is substantially in conformance with manufacturer specifications.

3.4 As applied-The VOC and solids content of a coating that is actually used to coat the substrate. The term includes the contribution of materials used for in-house dilution of the coating. [OTC STATE OPTION]

<u>3.5 As supplied-The VOC and solids content of a coating as sold and delivered to the end user.</u> [OTC STATE OPTION]

<u>3.6 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.</u>

3.7 Associated parts and components-

3.7.1 A structure, device, piece, module, section, assembly, subassembly, or element of a motor vehicle or mobile equipment that is designed to be a part of the motor vehicle or mobile equipment but which is not attached to the motor vehicle or mobile equipment at the time of coating the structure, device, piece, module, section, assembly, subassembly, or element.

3.7.2 The term does not include circuit boards.

3.8 Automotive coating-

<u>3.8.1 A coating or coating component used or recommended for use in motor vehicle or mobile equipment refinishing, service, maintenance, repair, restoration, or modification, except metal plating activities.</u>

<u>3.8.2 A reference to automotive refinishing or automotive coating included on the</u> container, on a label affixed to the container or in sales, advertising, technical or product literature constitutes a recommendation for use in motor vehicle or mobile equipment refinishing and recoating. [OTC STATE Option: Move the language in paragraph 3.8.2 to subsection 4.3 as substantive language.]

3.9 Automotive coating component-

<u>3.9.1</u> <u>A portion of a coating, including a reducer or thinner, toner, hardener, and</u> additive, which is recommended by a person to distributors or end-users for use in an automotive coating, or which is supplied for or used in an automotive coating.

<u>3.9.2</u> The raw materials used to produce the components are not considered automotive coating components.

(c) Automotive elastomeric coating—A coating designed for application over surfaces of flexible mobile equipment and mobile equipment components, such as elastomeric bumpers.

(d) Automotive impact-resistant coating—A coating designed to resist chipping caused by road debris.

(e) Automotive jambing clearcoat—a fast-drying, ready-to-spray clearcoat applied to surfaces such as door jambs and trunk and hood edges to allow for quick closure.

(f) Automotive lacquer—a thermoplastic coating applied directly to bare metal surfaces of mobile equipment and mobile equipment components which dries primarily by solvent evaporation, and which is resoluble in its original solvent. (g) Automotive low-gloss coating — A coating which exhibits a gloss reading less than or equal to 25 on a 60° glossmeter.

(h) Automotive multi-colored topcoat—A topcoat that exhibits more than one color, is packaged in a single container, and camouflages surface defects on areas of heavy use, such as cargo beds and other surfaces of trucks and other utility vehicles.

(i) Automotive pretreatment—A primer that contains a minimum of 0.5% acid, by weight, that is applied directly to bare metal surfaces of mobile equipment and mobile equipment components to provide corrosion resistance and to promote adhesion of subsequent coatings.

3.10 Automotive pretreatment coating-A coating that is both of the following:

3.10.1 Contains a minimum of 0.5% acid by weight and not more than 16% solids by weight necessary to provide surface etching.

3.10.2 Is labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and adhesion.

(j) Automotive primer-sealer—A coating applied to mobile equipment and mobile equipment components prior to the application of a topcoat for the purpose of providing corrosion resistance, promoting adhesion of subsequent coatings, promoting color uniformity, and promoting the ability of the undercoat to resist penetration by the topcoat.

(k) Automotive primer-surfacer—A coating applied to mobile equipment and mobile equipment components prior to the application of topcoat for the purpose of: filling surface imperfections in the substrate; providing corrosion resistance; or promoting adhesion of subsequent coatings.

3.11 Automotive primer-

3.11.1 A coating labeled and formulated for application to a substrate to provide one or more of the following:

3.11.1.1 A bond between the substrate and subsequent coats.

3.11.1.2 Corrosion resistance.

3.11.1.3 A smooth substrate surface.

<u>3.11.1.4</u> Resistance to penetration of subsequent coats, and on which a subsequent coating is applied.

3.11.2 Automotive primers may be pigmented.

3.12 Automotive refinishing facility-

<u>3.12.1</u> <u>A 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.</u>

3.12.2 The term does not include the original equipment manufacturing plant where the new motor vehicle or new mobile equipment is completely assembled.

(I) Automotive specialty coating—coatings including, but not limited to, elastomeric coatings, adhesion promoters, low gloss coatings, bright metal trim repair coatings, jambing clearcoats, impact resistant coatings, rubberized asphaltic underbody coatings, uniform finish blenders, weld-through primers applied to automotive surfaces and lacquer topcoats applied to a classic motor vehicle or to an antique motor vehicle.

(m) Automotive topcoat—A coating or series of coatings applied over an automotive primer-surfacer, automotive primer-sealer or existing finish on the surface of mobile equipment and mobile equipment components for the purpose of protection or beautification.

3.13 CARB-The California Air Resources Board. [OTC STATE OPTION]

(n) Classic motor vehicle—A motor vehicle, but not a reproduction thereof, manufactured at least 15 years prior to the current year which has been maintained in or restored to a condition which is substantially in conformity with manufacturer specifications and appearance.

<u>3.14 Cleaning operations-The removal of loosely held uncured adhesives, inks,</u> <u>coatings, or contaminants, including dirt, soil, or grease, from motor vehicles, mobile</u> <u>equipment, associated parts and components, substrates, parts, products, tools,</u> <u>machinery, equipment, or general work areas.</u>

<u>3.15 Clear coating-A coating that contains no pigments and is labeled and formulated</u> for application over a color coating or clear coating.

<u>3.16 Coating-A material that is applied to a surface and forms a film in order to beautify, preserve, repair, or protect the surface.</u>

[OTC STATE Option: This is the definition of coating in the H6 MACT rule: **Coating** means, for the purposes of this subpart, a material spray-applied to a substrate for decorative, protective, or functional purposes. For the purposes of this subpart, coating does not include the following materials: (1) Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances.

(2) Paper film or plastic film that may be pre-coated with an adhesive by the film manufacturer.

(3) Adhesives, sealants, maskants, or caulking materials.

(4) Temporary protective coatings, lubricants, or surface preparation materials.

(5) In-mold coatings that are spray applied in the manufacture of reinforced plastic composite parts.]

3.xx Coating solids-The nonvolatile portion of the coating that makes up the dry film. [OTC STATE option – this term and definition is taken from the H6 MACT definition of transfer efficiency.]

<u>3.17 Color coating-A pigmented coating, excluding adhesion promoters, primers, and</u> <u>multicolor coatings, that requires a subsequent clear coating and which is applied over a</u> <u>primer, adhesion promoter, or color coating.</u> <u>Color coatings include metallic/iridescent</u> <u>color coatings.</u>

[OTC STATE Option: This term and definition are in the H6 MACT rule: **Electrostatic application** means any method of coating application where an electrostatic attraction is created between the part to be coated and the atomized paint particles.]

3.18 Electrostatic spray application-A spray application method for coatings where an electrostatic attraction is created between the part to be coated and the paint particles.

<u>3.19 Emission control system-A combination of capture systems and control devices</u> <u>used to reduce VOC emissions from automotive coating operations.</u>

3.20 Exempt compounds-Define as appropriate for OTC STATE definition of VOC.

<u>3.21 Graphic arts operation-The application of logos, letters, numbers, or graphics to a painted surface by brush, roller, or airbrush.</u> [Option for OTC STATE with graphic arts rules: Automotive graphic arts operation-The application of logos, letters, numbers, or graphics to a motor vehicle or mobile equipment by brush, roller, or airbrush.]

3.22 High volume-low pressure (HVLP) spray-Spray equipment permanently labeled as HVLP that is designed and operated between 0.1 and 10 pounds per square inch, gauge, (psig) air atomizing pressure measured dynamically at the center of the air cap and at the air horns.

[OTC STATE Option: This is the definition of HVLP in the H6 MACT rule: **High-volume, low-pressure (HVLP) spray equipment** means spray equipment that is permanently labeled as such and used to apply any coating by means of a spray gun which is designed and operated between 0.1 and 10 pounds per square inch gauge (psig) air atomizing pressure measured dynamically at the center of the air cap and at the air horns.]

<u>3.23 Low-solids coating-A coating containing 0.12 kilogram or less of solids per liter (1 pound or less of solids per gallon) of coating material.</u> [Optional term and definition, taken from AIM; see paragraphs 4.2.1 and 4.2.2; may be deleted by OTC STATE.]

3.24 Metallic/iridescent color coating-A coating that contains more than 5 grams per liter (0.042 pounds per gallon) of metal or iridescent particles as applied, where the particles are visible in the dried film.

(0) <u>3.25</u> Mobile equipment--Equipment which may be <u>drawn or</u> driven or is capable of being <u>drawn or</u> driven on a roadway <u>or rails</u> including, <u>but not limited to</u>: automobiles, trucks, truck cabs, truck bodies and truck trailers; buses; motorcycles; utility bodies; camper shells; mobile cranes; bulldozers; street cleaners; golf carts; ground support vehicles, used in support of aircraft activities at airports; <u>implements of husbandry or agriculture</u> and farm equipment; and trains and railcars. [Note to OTC States: review this definition carefully for its impact on other mobile equipment-related rules, including the refinishing of locomotives and heavy-duty trucks that may take place under miscellaneous metal parts coatings.]

[OTC STATE Option: This is the definition of mobile equipment in the H6 MACT rule: **Mobile equipment** means any device that may be drawn and/or driven on a roadway including, but not limited to, heavy-duty trucks, truck trailers, fleet delivery trucks, buses, mobile cranes, bulldozers, street cleaners, agriculture equipment, motor homes, and other recreational vehicles (including camping trailers and fifth wheels).]

(p) Automotive touch up repair—the application of automotive topcoat finish materials to cover minor finishing imperfections equal to or less than 1 inch in diameter.

<u>3.26 Motor vehicle-A self-propelled vehicle, including cars, trucks, buses, golf carts, vans, motorcycles, tanks, and armored personnel carriers.</u> [Note to OTC States: review this definition carefully for its impact on other automobile-related rules.]

[OTC STATE Option: This is the definition of motor vehicle in the H6 MACT rule: **Motor vehicle** means any selfpropelled vehicle, including, but not limited to, automobiles, light duty trucks, golf carts, vans, and motorcycles.]

3.27 Multicolor coating-A coating that exhibits more than one color in the dried film after a single application, is packaged in a single container, hides surface defects on areas of heavy use, and is applied over a primer or adhesion promoter.

<u>3.28 Other automotive coating type-For purposes of this rule, an automotive coating that does not meet the definitions for the specified automotive coating categories in Table I.</u>

<u>3.29 Person-[OTC STATE to add definition if there is no statutory or regulatory definition of general applicability.]</u>

3.30 Product data sheet-For purposes of this rule, documentation furnished by a coating supplier or an outside laboratory for an automotive coating or associated solvent that provides the VOC content as weight of VOC per volume of coating, less water and exempt compounds, calculated from data measured using the EPA Reference Method 24 or an equivalent or alternative method. Batch formulation data may be used if it is demonstrated to the satisfaction of the Administrator of the EPA that the coating does not release additional VOC as reaction byproducts during the cure. The VOC content stated should represent the maximum VOC emission potential of the automotive coating or associated solvent. [Optional term and definition for OTC STATES; see subsection 5.2 (relating to compliance statement requirements).]

<u>3.31 Single-stage coating-A pigmented coating, excluding primers and multicolor</u> <u>coatings, labeled and formulated for application without a subsequent clear coat. Single-</u> <u>stage coatings include single-stage metallic/iridescent coatings.</u>

<u>3.32 Solvent-A VOC-containing fluid used to perform cleaning operations.</u> [Option: OTC STATE may wish to use its own definition of solvent.]

[OTC STATE Option: This is the definition of solvent in the H6 MACT rule: **Solvent** means a fluid containing organic compounds used to perform paint stripping, surface prep, or cleaning of surface coating equipment.]

<u>3.33 Spot repair-Repair of an area of less than 1 square foot (929 square centimeters)</u> in size on a motor vehicle, piece of mobile equipment, or associated parts or components.

<u>3.34 Temporary protective coating-A coating labeled and formulated for the purpose of temporarily protecting areas from overspray or mechanical damage.</u>

<u>3.xx Thinner-A volatile liquid that is used to dilute coatings (to reduce viscosity, color strength or solids content or to modify drying conditions). The term includes diluent, makeup solvent or reducer.</u> [OTC STATE Optional term and definition; see Table I]

<u>3.35 Transfer efficiency-The amount of coating solids adhering to the object being</u> <u>coated divided by the total amount of coating solids sprayed, expressed as a</u> <u>percentage.</u> [OTC STATE Option – substitute "used" for "sprayed".]

[OTC STATE Option: This is the definition of transfer efficiency in the H6 MACT rule: **Transfer efficiency** means the amount of coating solids adhering to the object being coated divided by the total amount of coating solids sprayed, expressed as a

percentage. Coating solids means the nonvolatile portion of the coating that makes up the dry film.]

3.36 Truck bed liner coating-A coating, excluding clear, color, multicolor, and singlestage coatings, labeled and formulated for application to a truck bed to protect it from surface abrasion.

<u>3.37 Underbody coating-A 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.</u>

3.38 Uniform finish coating-A 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.

3.39 U.S. EPA-The United States Environmental Protection Agency.

<u>3.40 Volatile organic compound (VOC)-</u> [OTC STATE shall choose one of the following: Option 1: OTC State specific definition.

Option 2: Federal definition at 40 CFR 51.100.

Option 3: CARB definition at Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, which differs from the Federal definition.]

Env-A xxxx.02 4. Standards.

(a) Except as provided in subsection (b) the requirements of this section apply to a person who applies mobile equipment repair and refinishing or color matched coatings to mobile equipment or mobile equipment components.

(b) This section does not apply to a person who applies surface coatings to mobile equipment or mobile equipment components under one of the following circumstances:

(1) The surface coating process is subject to other requirements (such as the miscellaneous metal parts finishing requirements relating to surface coating processes).

(2) The surface coating process is at an automobile assembly plant.

(3) The person applying the coatings does not receive compensation for the application of the coatings.

(c) <u>4.1 VOC content limits.</u> Beginning (one year from final adoption of this rule), a January 1, 20XX:

4.1.1 A person may not supply, sell, offer for sale, manufacture or distribute an automotive coating for use in this OTC STATE which, when thinned to the manufacturer's recommended maximum, does not meet the VOC content requirements of this section, except as provided in subsection 4.4 (relating to alternative compliance).

<u>4.1.2</u> <u>A</u> person may not apply to <u>a motor vehicle</u>, mobile equipment, or mobile equipment <u>associated parts and</u> components any <u>an</u> automotive <u>coating</u>, pretreatment, automotive primer-surface, automotive primer-sealer, automotive topcoat and automotive specialty coatings including any VOC containing materials added to the original coating supplied by the manufacturer, with a VOC content, as applied, calculated in accordance with subsection 4.2 (relating to calculation of VOC content), that contains VOC's <u>VOCs</u> in excess of the limits specified in Table III <u>1</u>, except as provided in subsection 4.4.

Table III I

Allowable Content of VOCs in <u>Automotive Coatings for Motor Vehicle and</u> Mobile Equipment Repair and Refinishing Coatings <u>and Recoating</u> (as applied)

Weight of VOC per Volume of Coating (<u>thinned to manufacturer's recommended</u> <u>maximum</u>, minus water and non-VOC solvents)

| | Limit | |
|---|-------------------------|--------------------|
| Coating Type <u>Category</u> | Pounds per gallon | Grams per Liter |
| Automotive pretreatment primer | 6.5 | 780 |
| Automotive primer-surfacer | 4.8 | 575 |
| Automotive primer-sealer | 4.6 | 550 |
| Automotive topcoat: | | |
| single stage-topcoat | 5.0 | 600 |
| 2 stage basecoat/clearcoat | 5.0 | 600 |
| 3 or 4-stage basecoat/clearcoat | 5.2 | 625 |
| Automotive Multi-colored Topcoat | 5.7 | 680 |
| Automotive specialty | 7.0 | 840 |
| Adhesion promoter | <u>4.5</u> | <u>540</u> |

| Automotive pretreatment coating | <u>5.5</u> | <u>660</u> |
|---------------------------------|------------|------------|
| Automotive primer | <u>2.1</u> | <u>250</u> |
| Clear coating | <u>2.1</u> | <u>250</u> |
| Color coating | <u>3.5</u> | <u>420</u> |
| Multicolor coating | <u>5.7</u> | <u>680</u> |
| Other automotive coating type | <u>2.1</u> | <u>250</u> |
| Single-stage coating | <u>2.8</u> | <u>340</u> |
| Temporary protective coating | <u>0.5</u> | <u>60</u> |
| Truck bed liner coating | <u>2.6</u> | <u>310</u> |
| Underbody coating | <u>3.6</u> | <u>430</u> |
| Uniform finish coating | <u>4.5</u> | <u>540</u> |

<u>4.1.3 Each solvent present at an automotive refinishing facility shall not exceed a VOC content of 25 grams per liter as calculated in accordance with the requirements of paragraph 4.2.2. [Editor's note needed about conflict with other solvent cleaning regulations]</u>

(d) <u>4.2 Calculation of VOC content.</u> A person who provides mobile equipment repair and refinishing coatings subject to this section shall provide documentation concerning the

<u>4.2.1 The VOC content of the automotive coatings subject to this rule shall be</u> calculated in accordance with the following:

(1) <u>4.2.1.1 VOC content for coatings, except for low-solids coatings.</u> The mass weight of VOC per combined volume of VOC and coating solids, less water and exempt compounds, and including added VOC solvent, shall be calculated by the following equation:

 $VOC \underline{content} = \underbrace{(Wv - Ww - Wec)}_{(V\underline{m} - Vw - Vec)}$

4.2.1.2 VOC content for solvents or low-solids coatings. The weight of VOC per volume of material, including the volume of water, exempt compounds and added VOC solvent, shall be calculated by the following equation:

where:

VOC <u>content</u> = VOC content in grams per liter (g/l) of coating less water and non-VOC solvents,.

Wv = Mass Weight of total volatiles, in grams;.

 $W_W = \frac{W}{W} = \frac{W}{W}$

Wec = Mass Weight of exempt compounds, in grams;.

V<u>m</u> = Volume of <u>material (coating or solvent</u>, <u>as applicable</u>, <u>including water</u>, <u>exempt</u> <u>compounds</u>, <u>and added solvent</u>) in liters;.

 V_W = Volume of water, in liters; and.

 V_{ec} = Volume of exempt compounds, in liters.

To convert from grams per liter to pounds per gallon (lb/gal), multiply the result (VOC content) by 8.345×10^{-3} (lb/gal/g/l).

(2) The VOC content of a multi-stage topcoat shall be calculated by the following equation:

$$VOCmulti = \frac{VOCbc + \sum_{i=0}^{M} VOCmci + 2(VOCcc)}{M+3}$$

[Editor's note: This equation is deleted as part of this action.]

where: VOCmulti = VOC content of multistage topcoat, g// VOCbc = VOC content of basecoat, g// VOCmci = VOC content of the midcoat(s), g// VOCcc = VOC content of the clear coat, g// M = number of midcoats

4.2.2 To determine the physical properties of a coating to perform the calculations in paragraph 4.2.1, the coating shall be analyzed in accordance with the methods specified in subsection 6.1 (relating to coating analysis). [OTC STATE Option – language to cross reference the test method requirements of subsection 6.1]

<u>4.3 Recommendation for use and most restrictive VOC limit.</u> [OTC STATE Option: "Recommendation for use" may be deleted if paragraph 4.3.1 is deleted.]

4.3.1 <u>A reference to automotive refinishing or automotive coating included on the</u> container, on a label or sticker affixed to the container or in sales, advertising, technical or product literature constitutes a recommendation for use in motor vehicle or mobile equipment refinishing and recoating. [OTC STATE Option: This language may be deleted. It is included in the definition of the term automotive coating found at subsection 3.8.]

4.3.2 If on the container of an automotive coating, or a label or sticker affixed to the container or in sales, advertising, technical or product literature supplied by a person, a 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 subsection 4.1, then the lowest applicable VOC content limit shall apply.

4.4 Alternative compliance.

4.4.1 Instead of complying with the VOC content limits specified in subsection 4.1, a person may use an emission control system that has been approved, in writing, by the [OTC STATE Agency Air Director], which achieves an overall control efficiency of at least 85% as determined in accordance with the requirements of subsection 6.8.

4.4.2 An approved emission control system must be maintained and used at all times in proper working condition.

4.5 **Prohibition of possession.** A person may not possess either of the following at an automotive refinishing facility:

4.5.1 An automotive coating that is not in compliance with subsections 4.1 or 4.4, as applicable.

<u>4.5.2 A solvent with a VOC content greater than 25 grams per liter.</u> [Editor's note needed about conflict with other solvent cleaning regulations]

4.6 Prohibition of sale or manufacture.

<u>4.6.1</u> A person may not manufacture, blend, repackage for sale, supply, sell, offer for sale, or distribute for use within OTC STATE an automotive coating with a VOC content in excess of the limits specified in subsection 4.1.

4.6.2 Notwithstanding the provisions of paragraph 4.6.1, a person may manufacture, blend, repackage for sale, supply, sell, offer for sale or distribute within OTC STATE a coating with a VOC content in excess of the limits specified in subsection 4.1 under either of the following circumstances and provided all of the requirements of subsection 5.7 are also met:

4.6.2.1 The coating is for use exclusively within an emission control system as allowed in subsection 4.4.

4.6.2.2 The coating is for use outside of OTC STATE.

4.7 **Prohibition of specification.** A person may not solicit or require the use of, or specify the application or use of a coating or solvent on a motor vehicle or mobile equipment, or associated parts and components, if the use or application results in a violation of this rule.

4.7.1 This prohibition shall apply to all written or oral contracts, including job orders, under the terms of which a coating or solvent that is subject to the provisions of this rule is to be used or applied.

4.7.2 This prohibition shall not apply to coatings that meet the criteria specified in paragraph 4.6.2.

(e) <u>4.8 Coating application methods.</u> Beginning <u>(a date 12 months from the date of publication of the effective date of adoption of this proposal), a person at a facility subject to the provisions of this section shall use one or more of the following application techniques to apply any finish material listed in Table III: <u>January 1, 20XX, a person may not apply an automotive coating subject to this rule to a motor vehicle, mobile equipment, or associated parts and components unless one or more of the following application methods is used:</u></u>

(1) <u>4.8.1</u> Flow/curtain coating. [Optional method, not listed in CARB SCM, may be deleted by OTC State]

(2) <u>4.8.2</u> Dip coating.

(3) 4.8.3 Roller coating.

(4) <u>4.8.4</u> Brush coating.

(5) <u>4.8.5</u> Cotton-tipped swab application. [Optional method, not listed in CARB SCM, may be deleted by OTC State]

(6) <u>4.8.6</u> Electrodeposition coating. [Optional method, not listed in CARB SCM, may be deleted by OTC State]

(7) <u>4.8.7</u> High volume-low pressure (HVLP) spraying.

(8) <u>4.8.8</u> Electrostatic spray.

(9) <u>4.8.9</u> Airless spray. [Optional method, not listed in CARB SCM, may be deleted by OTC State]

(10) <u>4.8.10</u> Other <u>An alternative spray</u> coating application methods <u>method</u> that the person has demonstrated and the Department <u>OTC STATE AGENCY</u> has determined achieve emission reductions <u>achieves a transfer efficiency</u> equivalent to <u>or higher than</u> HVLP or electrostatic spray application methods.

[Note for OTC STATES: Paragraph 4.8.11 is optional language included to allow OTC STATE AGENCIES the option of automatically approving alternative spray coating application method technologies that have been approved by CARB or a California Air District.]

4.8.11 An alternative spray coating application method that has been approved by CARB or a California Air District for use in applying automotive coatings for motor

vehicle and mobile equipment refinishing and recoating shall also be approved to comply with this rule, as applicable.

[Note for OTC STATES: Paragraph 4.8.12 is optional language included to allow OTC STATE AGENCIES the option of automatically approving alternative coating application method technologies other than spray coating that have been approved by CARB or a California Air District.]

4.8.12 An alternative coating application method other than spray coating application methods that has been approved by CARB or a California Air District for use in applying automotive coatings for motor vehicle and mobile equipment refinishing and recoating shall also be approved to comply with this rule, as applicable.

(f) The following situations are exempt from the application equipment requirements listed in paragraphs (g) and (h):

(1) The use of airbrush application methods for stenciling, lettering, and other identification markings;

(2) The application of coatings sold in nonrefillable aerosol containers

(3) The application of automotive touch-up repair finish materials.

4.9 **Exemptions.** The application requirements of subsection 4.8 (relating to coating application methods) do not apply to the following:

4.9.1 Graphics arts operations.

4.9.2 A coating use of less than one (1) fluid ounce (29.6 milliliters).

4.9.3 The application of:

4.9.3.1 Underbody coatings.

4.9.3.2 Truck bed liner coatings.

(g) 4.10 Work practice standards.

<u>4.10.1</u> Spray guns used to apply mobile equipment repair and refinishing <u>automotive</u> <u>coating components or automotive</u> coatings shall be cleaned by one <u>or a combination</u> of the following:

(1) <u>4.10.1.1</u> A <u>fully</u> enclosed spray gun cleaning system that is kept closed when not in use. (H6 MACT - fully enclosed spray gun washer)

(2) <u>4.10.1.2</u> Unatomized discharge of solvent into a paint waste container that is kept closed when not in use. (H6 MACT - by flushing solvent through the gun without atomizing the solvent and paint residue)

(3) <u>4.10.1.3</u> Disassembly of the spray gun and cleaning in a vat that is kept closed when not in use. (H6 MACT - hand cleaning of parts of the disassembled gun in a container of solvent

(4) <u>4.10.1.4</u> Atomized spray into a paint waste container that is fitted with a device designed to capture atomized <u>mist or spray</u> solvent emissions.

[Note to OTC STATES: Compare the language of the requirements above with the language of the MACT requirement - All paint spray gun cleaning must be done so that an atomized mist or spray of gun cleaning solvent and paint residue is not created outside of a container that collects used gun cleaning solvent. Spray gun cleaning may be done with, for example, hand cleaning of parts of the disassembled gun in a container of solvent, by flushing solvent through the gun without atomizing the solvent and paint residue, or by using a fully enclosed spray gun washer. A combination of non-atomizing methods may also be used. H6 page 1762(4)]

(h) <u>4.10.2</u> The owner and operator of a <u>an automotive refinishing</u> facility subject to the provisions of this section <u>rule</u> shall implement the following housekeeping and pollution prevention <u>work practice standards</u> and training measures:

(1) <u>4.10.2.1</u> Fresh and used <u>automotive coating components</u>, <u>automotive</u> coatings, solvent, and cleaning solvents, shall be stored in <u>vaportight</u>, nonabsorbent, nonleaking containers. The containers shall be kept closed at all times except when filling or emptying.

(2) <u>4.10.2.2</u> Cloth and paper, or other absorbent applicators, moistened with <u>automotive</u> <u>coating components</u>, <u>automotive</u> coatings, solvents, or cleaning solvents, shall be stored in closed, <u>vaportight</u>, nonabsorbent, nonleaking containers.

(3) <u>4.10.2.3</u> Handling and transfer procedures shall minimize spills during the transfer of <u>automotive coating components, automotive</u> coatings, solvents, and cleaning solvents.

(4) <u>4.10.2.4</u> Ensure that a person who <u>uses or</u> applies <u>mobile equipment repair and</u> refinishing <u>automotive coating components</u>, <u>automotive</u> coatings, <u>or solvents</u>, has completed training in the proper use and handling of the <u>mobile equipment repair and</u> refinishing coatings, <u>automotive coating components</u>, <u>automotive coatings</u>, solvents and waste products in order to minimize the emission of air contaminants and to comply with this section <u>rule</u>. [OTC STATE Option - include language at subsection 5.x to monitor compliance with this requirement.]

[Note for OTC STATES: Subparagraph 4.10.2.5 is optional language included to allow OTC STATE AGENCIES the option of incorporating some of the training requirements of the H6 MACT.]

4.10.2.5 Ensure that a person who spray applies automotive coatings is trained in the proper spray application of automotive coatings.

5. Compliance procedures and monitoring requirements.

5.1 Use of a spray gun coating application technology. If a spray gun coating application technology is used, the end user must demonstrate that the gun meets one of the following:

5.1.1 The definition of HVLP in subsection 3.22 in design and use. A satisfactory demonstration must be based on both of the following:

5.1.1.1 The manufacturer's published technical material on the design of the gun.

5.1.1.2 A demonstration of the operation of the gun using an air pressure cap test gauge from the manufacturer of the gun.

5.1.2 The alternative spray coating application method transfer efficiency requirement of paragraph 4.8.10. A satisfactory demonstration must include all of the following:

5.1.2.1 Written determination of the transfer efficiency in accordance with the test methods in subsections 6.5 (relating to spray equipment transfer efficiency) and 6.6 (relating to spray equipment HVLP equivalency).

5.1.2.2 Written documentation that the alternative spray coating application method has been approved by the OTC STATE Agency Air Director for use in OTC STATE.

[Note for OTC STATES: Paragraph 5.1.3 is optional language included to allow OTC STATE AGENCIES the option of automatically approving alternative spray coating application method technologies under paragraph 4.8.11 that have been approved by CARB or a California Air District.]

5.1.3 The alternative spray coating application method requirement of paragraph 4.8.11. A satisfactory demonstration must include all of the following:

5.1.3.1 The approval is currently in effect in the issuing District (the OTC STATE AGENCY shall consider an approval to be in effect if the issuing agency considers the exemption to be in effect).

5.1.3.2 The manufacturer of the alternative spray coating application technology has submitted to the OTC STATE AGENCY all of the following:

5.1.3.2.1 A statement that it intends to comply with this rule under an alternative spray coating application method approval.

5.1.3.2.2 A copy of the documents submitted to the issuing agency for approval of the spray coating application technology.

5.1.3.2.3 A copy of the issuing agency's approval documentation.

5.1.3.2.4 A copy of the issuing agency's conditions of approval.

5.1.3.2.5 A copy of documents from the issuing agency that subsequently modify or terminate its conditions of approval.

[Note for OTC STATES: Subsection 5.2 is optional language included to allow OTC STATE AGENCIES the option of automatically approving alternative coating application method technologies other than spray coating under paragraph 4.8.12 that have been approved by CARB or a California Air District.]

5.2 Use of a coating application technology method other than spray gun coating application technology. If a coating application technology method other than spray gun coating application technology is used, the end user must demonstrate that the technology meets the requirement of paragraph 4.8.12. A satisfactory demonstration must include the following:

5.2.1. The approval is currently in effect in the issuing District (the OTC STATE AGENCY shall consider an approval to be in effect if the issuing agency considers the exemption to be in effect).

5.2.2 The manufacturer of the alternative coating application technology has submitted to the OTC STATE AGENCY all of the following:

5.2.2.1 A statement that it intends to comply with this rule under an alternative coating application method approval.

5.2.2.2 A copy of the documents submitted to the issuing agency for approval of the alternative coating application technology.

5.2.2.3 A copy of the issuing agency's approval documentation.

5.2.2.4 A copy of the issuing agency's conditions of approval.

5.2.2.5 A copy of documents from the issuing agency that subsequently modify or terminate its conditions of approval.

[Note for OTC STATES: Subsection 5.3 is optional language included to allow OTC STATE AGENCIES the option of incorporating some of the training requirements of the H6 MACT under subparagraph 4.10.2.5.]

5.3 Training in the proper use of spray gun coating application technology. The owner or operator of an automotive refinishing facility that implements a training program under the provisions of subparagraph 4.10.2.5 shall include hands-on instruction that addresses, at a minimum, the following:

5.3.1 Spray gun equipment selection, set up, and operation, including measuring coating viscosity, selecting the proper fluid tip or nozzle, and achieving the proper spray pattern, air pressure and volume, and fluid delivery rate.

5.3.2 Spray technique for different types of coatings to improve transfer efficiency and minimize coating usage and overspray, including maintaining the correct spray gun distance and angle to the part, using proper banding and overlap, and reducing lead and lag spraying at the beginning and end of each stroke.

5.x Training in the proper use and handling of automotive coatings [OTC STATE Option - include language to monitor the requirement of subparagraph 4.10.2.4]

5.4 Compliance statement requirements.

5.4.1 For each individual automotive coating or automotive coating component, the manufacturer and repackager shall include the following information on product data sheets or an equivalent medium:

5.4.1.1 The VOC content for the coating or coating component, expressed in grams per liter, calculated in accordance with the requirements of subsection 4.2 (relating to calculation of VOC content).

5.4.1.2 The weight percent of volatiles, water, and exempt compounds.

5.4.1.3 The volume percent of water and exempt compounds.

5.4.3.4 The density of the material (in grams per liter).

5.4.2 For each individual ready to spray mixture (based on the manufacturer's and repackager's stated mix ratio), the manufacturer and repackager shall include the following information on product data sheets or an equivalent medium:

5.4.2.1 The VOC content for the coating or coating component, expressed in grams per liter.

5.4.2.2 The weight percent of volatiles, water, and exempt compounds.

5.4.2.3 The volume percent of water and exempt compounds.

5.4.2.4 The density of the material (in grams per liter).

5.4.3 The manufacturer and repackager of solvents subject to this rule shall include the VOC content as supplied, calculated in accordance with the requirements of subsection 4.2, expressed in grams per liter, on product data sheets or an equivalent medium.

5.5 Container labeling requirements.

5.5.1 The manufacturer and repackager of automotive coatings or automotive coating components shall include the following information on all containers or on a label affixed to the container:

5.5.1.1 The applicable use categories.

5.5.1.2 The VOC content of the coating or coating component, as supplied, calculated in accordance with the requirements of subsection 4.2 (relating to calculation of VOC content) and expressed in grams per liter.

5.5.1.3 A statement of the manufacturer's recommendation regarding thinning, reducing, or mixing of the product, except that:

5.5.1.3.1 This requirement does not apply to the thinning of a product with water.

5.5.1.3.2 If thinning of the product prior to use is not necessary, the recommendation must specify that the product is to be applied without thinning.

5.5.1.4 The VOC content of the coating or coating component as applied, thinned to the manufacturer's recommended maximum, calculated in accordance with the requirements of subsection 4.2 and expressed in grams per liter.

5.5.2 The manufacturer and repackager of solvents subject to this rule shall include on all containers, or on a label affixed to the container, the VOC content for solvents, as supplied, expressed in grams per liter.

5.6 Maintenance of records. Records required by this rule shall be:

5.6.1 Retained for a minimum of three years [or other OTC State retention requirement].

5.6.2 Made available for inspection by OTC State Agency personnel upon request.

5.7 **Recordkeeping requirements.** A person who uses automotive coating components, automotive coatings, ready-to-spray coatings (based on the manufacturer's stated mix ratio), or solvents subject to this rule shall maintain and have available at all times, on site, the following:

5.7.1 A current list of all coatings and solvents used that are subject to this rule. This list shall include the following information for each coating and solvent:

5.7.1.1 Whether the material is a coating or solvent.

5.7.1.2 Coating or solvent name and manufacturer.

5.7.1.3 Application method.

5.7.1.4 Coating type (as listed in subsection 4.1 (relating to VOC content limits)).

5.7.1.5 The mix ratio specific to the coating.

5.7.1.6 The VOC content as applied and copies of data sheets documenting how the as applied values were determined.

5.7.2 The VOC content as supplied and copies of current manufacturer specification sheets, product data sheets, material safety data sheets, technical data sheets, or air quality data sheets documenting the as supplied value.

5.7.3 Purchase records identifying the following:

5.7.3.1 The coating type (as listed in subsection 4.1)

5.7.3.2 Coating or solvent name.

5.7.3.3 Volume purchased of the coating or solvent.

5.8 Recordkeeping requirements for emission control systems.

5.8.1 A person using an emission control system shall maintain daily 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.

5.8.2 "Key system operating parameters" are those parameters necessary to ensure or document compliance with subsection 4.4, including the following:

5.8.2.1 Temperatures.

5.8.2.2 Pressure drops.

5.8.2.3 Air flow rates.

5.9 Recordkeeping requirements for prohibition of sale or manufacture. A person claiming an exception specified in subsection 4.6 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:

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

5.9.2 The VOC content as applied.

5.9.3 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 [OTC State Agency] permit number.

5.9.4 The specific exception being used under subsection 4.6.

5.10 Product dating.

5.10.1 Product dating requirements.

5.10.1.1 Each manufacturer of an automotive coating subject to this rule shall clearly display on each automotive coating container, on a label affixed to the container or on the package, the day, month and year on which the automotive coating was manufactured, or a code indicating that date.

5.10.1.2 A manufacturer who uses the following code to indicate the date of manufacture will not be subject to the requirements of subparagraph 5.10.2.1 if the code is represented separately from other codes on the automotive coating container, label or package so that it is easily recognizable:

YY DDD = year year day day day

where,

<u>YY = two digits representing the year in which the automotive coating was</u> <u>manufactured</u>

DDD = three digits representing the day of the year on which the automotive coating was manufactured, with "001" representing the first day of the year, "002" representing the second day of the year, and so forth (that is, the "Julian date").

5.10.1.3 The product date or date-code required by this section must be displayed on each automotive coating container, label or package no later than 30 days before the automotive coating is supplied, sold, offered for sale or distributed in this OTC STATE.

5.10.1.4 The date or date-code information shall be located on the automotive coating container, label or package so that it is readily observable without irreversibly disassembling a part of the container or packaging.

5.10.1.5 For the purposes of this subsection, information may be displayed on the bottom of a container as long as it is clearly legible without removing any product packaging.

5.10.1.6 The requirements of this subsection do not apply to automotive coatings containing no VOCs (as defined in section 3 (relating to definitions)).

5.10.2 Additional product dating requirements.

5.10.2.1 If a manufacturer uses a code indicating the date of manufacture for an automotive coating subject to this rule, an explanation of the date portion of the code must be filed with the OTC STATE AGENCY no later than 30 days before the automotive coating is supplied, sold, offered for sale or distributed in this OTC STATE.

5.10.2.2 If a manufacturer changes a code indicating the date of manufacture for an automotive coating subject to subparagraph 5.10.2.1, an explanation of the modified code must be submitted to the OTC STATE AGENCY before products displaying the modified code are supplied, sold, offered for sale or distributed in this OTC STATE.

5.10.2.3 A person may not erase, alter, deface or otherwise remove or make illegible a date or code indicating the date of manufacture from a regulated product container without the express authorization of the manufacturer.

5.10.2.4 Date code explanations for codes indicating the date of manufacture are public information and may not be claimed as confidential.

5.11 **Sell-through.** An automotive coating, coating component or solvent subject to this rule manufactured prior to January 1, 20XX, may be supplied, sold, offered for sale, or distributed in this OTC STATE, if the product meets both of the following:

5.11.1 The automotive coating, coating component or solvent complied with the standards in effect at the time the product was manufactured.

5.11.2 The automotive coating, coating component or solvent meets the product dating requirements of subsection 5.8 (relating to product dating).

6. **Test Methods.** The following test methods are incorporated by reference herein, 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 a measurement by one or more of the listed applicable test methods exceeds the standards of this rule. [Option: OTC State may wish to include reference to test method updates and revisions, so as not to be locked into a specific edition of the method.] [If OTC State has its own test method, you may wish to use it instead of the methods listed here.]

6.1 Coating analysis.

6.1.1 To perform the calculations specified in subsection 4.2 (relating to calculation of VOC content), the physical properties of automotive components, automotive coatings, and solvents subject to this rule shall be determined using one of the following:

6.1.1.1 EPA Reference Method 24, *Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings,* 40 CFR 60, <u>Subpart D, Appendix A.</u> [OTC State may add language that updates and revisions to this method are included.]

<u>6.1.1.2 South Coast Air Quality Management District (SCAQMD) Method 304-91,</u> <u>Determination of Volatile Organic Compounds (VOC) in Various Materials, SCAQMD,</u> <u>21865 Copley Drive, Diamond Bar, CA, 91765 USA.</u> [Optional - OTC State may include this method; OTC State may add language that updates and revisions to 304-91 are included.]

6.1.1.3 An alternative method, formulation data or other reasonable means for predicting that the coating has been formulated as intended, if approved in writing by the [OTC STATE Agency Air Director]. [OTC STATE Option; taken from AIM regulation]

6.1.2 If there are inconsistencies between the results of an EPA Reference Method 24 test and another means for determining the physical properties of the coating and subsequent VOC content, the EPA Reference Method 24 test results shall govern, except when an alternative method is approved as specified in subparagraph 6.1.1.3. [OTC STATE Option; taken from AIM regulation]

6.2 **Exempt organic compounds.** The identity and concentration of exempt organic compounds shall be determined using one or more of the following:

6.2.1 ASTM 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, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959 USA. [Option - OTC State may delete the ASTM D6133 year designator and add language that updates and revisions to D6133 are included.]

<u>6.2.2</u> <u>ASTM D4457-85</u>, <u>Standard Test Method for Determination of Dichloromethane</u> <u>and 1,1,1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas</u> <u>Chromatograph</u>, <u>ASTM International</u>, 100 Barr Harbor Drive, PO Box C700, West <u>Conshohocken</u>, PA, 19428-2959 USA. [Optional - OTC State may include this method.] [Option - OTC State may delete the ASTM D4457 year designator and add language that updates and revisions to D4457 are included.]

6.2.3 CARB Method 432, Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings, September 12, 1989, California Air Resources Board, 1001 "I" Street, P.O. Box 2815, Sacramento, CA, 95812, including updates and revisions.

6.2.4 CARB Method 422, Determination of Volatile Organic Compounds in Emissions from Stationary Sources, January 22, 1987, California Air Resources Board, 1001 "I" Street, P.O. Box 2815, Sacramento, CA, 95812, including updates and revisions. 6.2.5 South Coast Air Quality Management District (SCAQMD) Method 303-91, <u>Determination of Exempt Compounds</u>, SCAQMD, 21865 Copley Drive, Diamond Bar, <u>CA</u>, 91765 USA. [Optional - OTC State may include this method; OTC State may add language that updates and revisions to 303-91 are included.]

<u>6.3 Acid content.</u> Measurement of acid content as specified in subsection 3.10 (relating to automotive pretreatment coatings) shall be determined by using ASTM D1613-03, *Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products,* ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959 USA. [Option - OTC State may delete the ASTM D1613 year designator and add language that updates and revisions to D1613 are included.]

6.4 **Metallic Content.** The metallic content of a coating as specified in subsection 3.24 (relating to metallic/iridescent color coating) shall be determined by South Coast Air Quality Management District (SCAQMD) Method 318-95, *Determination of Weight Percent Elemental Metal in Coatings by X-ray*, SCAQMD, 21865 Copley Drive, Diamond Bar, CA, 91765 USA. [Option - OTC State may add language that updates and revisions to 318-95 are included.]

6.5 Spray equipment transfer efficiency. Spray equipment transfer efficiency as specified in subsection 3.35 and paragraph 4.8.10 (relating to coating application methods) shall be determined by using the South Coast Air Quality Management District (SCAQMD) Test Procedure, Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989, SCAQMD, 21865 Copley Drive, Diamond Bar, CA, 91765 USA. [Option - OTC State may add language that updates and revisions to this method are included.]

6.6 **Spray equipment HVLP equivalency.** Spray equipment HVLP equivalency as specified in subsection 5.1 (relating to use of a spray gun) shall be determined by using one of the following:

<u>6.6.1</u> South Coast Air Quality Management District (SCAQMD) Guidelines, Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns, September 26, 2002, SCAQMD, 21865 Copley Drive, Diamond Bar, CA, 91765 USA. [Option - OTC State may add language that updates and revisions to this method are included.]

6.6.2 <u>The Environmental Technology Verification (ETV) Protocol, HVLP Coating</u> <u>Equipment, Generic Testing and Quality Assurance Protocol, prepared by the National</u> <u>Defense Center for Environmental Excellence, operated by Concurrent Technologies</u> <u>Corporation, Johnstown, PA 15904.</u> [OTC STATE OPTION; may be deleted] [Option - OTC State may add language that updates and revisions to this method are included.] 6.7 **Spray gun cleaning system.** The active and passive solvent losses from the use of an enclosed spray gun cleaning system or equivalent cleaning system, as listed in paragraph 4.10.1 (relating to work practice standards), shall be determined using South Coast Air Quality Management District (SCAQMD) Method, *General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems*, October 3, 1989, SCAQMD, 21865 Copley Drive, Diamond Bar, CA, 91765 USA. [Optional - OTC State may include this method; OTC State may add language that updates and revisions to this method are included.]

6.7.1 The test solvent for this determination shall be a lacquer thinner with a minimum vapor pressure of 105 mm of mercury at 20°C.

6.7.2 The minimum test temperature shall be 15°C.

6.8 Emission control system. If an emission control system is used to meet the requirements of this rule, the owner or operator shall make both of the following determinations:

6.8.1 The measurement of capture efficiency shall be conducted and reported in accordance with one or both of the following, as applicable:

6.8.1.1 U.S. EPA Technical Document, *Guidelines for Determining Capture Efficiency*, issued January 9, 1995.

6.8.1.2 40 CFR 51, Appendix M, Methods 204 – 204f.

6.8.2 The control efficiency shall be determined in accordance with one or more of the following:

6.8.2.1 U.S. EPA Reference Method 25, *Determination of Total Gaseous Nonmethane Organic Emissions as Carbon*, 40 CFR 60, Subpart D, Appendix A, including updates and revisions. [OTC State may add language that updates and revisions to this method are included.]

6.8.2.2 U.S. EPA Reference Method 25A, *Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer*, 40 CFR 60, Subpart D, Appendix A, including updates and revisions. [OTC State may add language that updates and revisions to this method are included.]

<u>6.8.2.3 U.S. EPA Reference Method 25B, Determination of Total Gaseous Organic</u> <u>Concentration Using a Nondispersive Infrared Analyzer, 40 CFR 60, Subpart D,</u> <u>Appendix A, including updates and revisions.</u> [OTC State may add language that updates and revisions to this method are included.]</u> <u>6.8.3 A source is in violation if the measured VOC emissions, as measured by one or more of the test methods in this subsection, exceed the standards specified in subsection 4.4 (relating to alternative compliance).</u>

6.9 Alternative Test Methods. The use of other test methods which are determined to be equivalent or better and approved, in writing, by the [OTC State Air Agency Director] and the Administrator of the U.S. EPA may be used in place of the test methods specified in this section.