

Eastern Kern Air Pollution Control District

Rule 410.4A MOTOR VEHICLE AND MOBILE EQUIPMENT REFINISHING OPERATIONS

FINAL STAFF REPORT

March 13, 2014

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I. BOARD ADOPTION

Rule 410.4A, Motor Vehicle and Mobile Equipment Refinishing Operations was amended by the Eastern Kern Air Pollution Control District (District)'s Governing Board on March 13, 2014 at its regular Board meeting in Rosamond California.

Amended Rule 410.4A became effective and enforceable upon adoption. A copy of the Rule has been submitted to the California Air Resources Board (ARB) for their review and then to be forwarded to the U.S. Environmental Protection Agency (EPA) for inclusion into the State Implementation Plan (SIP).

II. INTRODUCTION

Rule 410.4A was originally adopted May 6, 1991 and amended April 6, 1995, March 7, 1996, and March 13, 2014. This staff report presents an extensive revision of the Rule. Amended Rule 410.4A limits volatile organic compound (VOC) emissions from coatings and solvents used in production, repair, refinish, or maintenance operations where motor vehicles, mobile equipment, or associated parts and components are coated. A majority of the amendments are based on the California Air Resources Board (ARB) Suggested Control Measure (SCM) for Automotive Coatings. The SCM is designed to promote uniformity amongst air district's that use it as a template for amending their motor vehicle and mobile equipment refinishing/coating rules.

On November 6, 2013 the District held a public rule development workshop at the Mojave Veteran's Building in Mojave, CA. At this workshop District staff presented proposed revisions to Rule 410.4A, Motor Vehicle and Mobile Equipment Refinishing Operations. The District submitted copies of the proposed revision to ARB and EPA for an initial review prior to the workshop. A 30-day public review and comment period followed the workshop.

District received comments and suggested changes from EPA, ARB, and industry. District considered all comments and suggested changes.

Appendix A is Amended Rule 410.4A, Motor Vehicle and Mobile Equipment Refinishing Operations.

Appendix B shows all changes made to Rule 410.4A, Motor Vehicle and Mobile Equipment Refinishing Operations in strikeout underline form.

Appendix C is the District's Response to Comments following the November 6, 2013 public workshop held at the Mojave Veteran's Center in Mojave, CA.

III. MOTOR VEHICLE AND MOBILE EQUIPMENT COATINGS

Motor vehicle and mobile equipment coatings are coatings that are applied to motor vehicles and mobile equipment. Such coatings are sold as components that must be mixed to be applied. The main coating categories include primers, color coatings, and clear coatings. These three broad coating categories account for approximately 84 percent of the sales reported in California. Remaining sales consist of a variety of coatings such as pretreatment coatings or adhesion promoters intended for use on bare metal or plastics.

Motor vehicle and mobile equipment coatings are typically used to refinish, repair, or restore vehicles such as: automobiles, vans, trucks, truck trailers, buses, motorcycles, golf carts, tanks, armored personnel carriers, trains, railcars, mobile cranes, bulldozers, and street cleaners. Aerosol coatings (e.g., spray paint) or original equipment manufacturer coatings are not considered motor vehicle and mobile equipment coatings for applicable intent and purposes of this rule.

IV. MOTOR VEHICLE REFINISHING EMISSIONS

Coatings used in motor vehicle and mobile equipment refinishing operations represent a moderate source of volatile organic compound (VOC) emissions throughout California. VOC emissions are precursors to the formation of ozone and particulate matter (PM), which are California's most serious air quality problems. VOCs react photochemically with oxides of nitrogen (NOx) to form ozone. Ozone is a strong oxidizer that irritates the human respiratory system, increases airway hyperreactivity, increases airway inflammation, and damages plant life and property. Exposure to ozone can be associated with hospitalization for cardiopulmonary causes, asthma episodes, restrictions in physical activity, and premature death.

VOC emissions from motor vehicle and mobile equipment coatings can also lead to the formation of particulate matter (PM), which consists of very small liquid and solid particles suspended in the air. PM of concern include particles smaller than 10 microns in size (PM₁₀), as well as the subset of fine particles smaller than 2.5 microns in size (PM_{2.5}). When inhaled, PM₁₀ and PM_{2.5} can travel deep into the lungs and reduce human pulmonary function.

When motor vehicle and mobile equipment coatings are applied, the solvents that hold the coatings in suspension evaporate into the atmosphere and contribute to VOC emissions.

V. VOC EMISSIONS REDUCTIONS

Motor vehicle and mobile equipment coatings contain solvents which evaporate when they are applied. Most of the solvents used in these coatings are VOCs. Rule 410.4A is intended to reduce VOC emissions by establishing limits on the VOC content of motor vehicle and mobile equipment coating categories. VOC limits are expressed in grams of VOC per liter of coating, less water and exempt compounds, and vary with each coating category. In general VOC limits are met by replacing some of the solvents in motor vehicle and mobile equipment coatings with water, exempt compounds such as solvents with low photochemical reactivity, increasing the amount of solids, such as resins and pigments, or with a combination of these approaches.

Average annual statewide VOC emissions from automotive coatings, excluding solvent usage for surface preparation and cleanup, are estimated to be approximately 20.7 tons per day (tpd) or about two percent of the total statewide stationary source VOC emissions. ARB has calculated that statewide implementation of the automotive refinishing SCM would lower VOC emissions from automotive coatings by about 13.4 tpd. This produces approximately a 65% reduction in VOC emissions from automotive coatings.

VI. APPLICABILITY

Provisions of Rule 410.4A are applicable to motor vehicle and mobile equipment refinishing operations as defined in this staff report and to any person who supplies, sells, offers for sale, manufactures, distributes, uses, applies, or solicits the use or application of any automotive coating or associated solvent within the District.

VII. CHANGES IN CATEGORIES AND DEFINITIONS

To enhance clarity, enforcement, and to limit the types of products that qualify for inclusion into each specific category of Rule 410.4A, Section IV, Definitions of the rule provides definitions for revised and new terms that are not self-explanatory.

Definitions for the following items have been revised in 410.4A:

- Electrostatic Spray Application
- Exempt Compounds
- High-Volume, Low-Pressure (HVLV)
- Metallic/Iridescent Topcoat
- Mobile Equipment
- Pretreatment Coating
- Primer
- Specialty Coating
- Spot/Panel Repair
- Touch-Up Coating
- Volatile Organic Compound

Definitions for the following items have been added to 410.4A

- Adhesion Promoter
- Aerosol Coating Product
- APCO
- Assembly Line
- Associated Parts and Components
- Automotive Coating
- Automotive Coating Component
- Automotive Refinishing Facility
- California Air Resources Board
- Cleaning Operations
- Clear Coating
- Coating
- Color Coating
- Emission Control System
- EPA
- Motor Vehicle
- Multi-Color Coating
- Single-Stage Coating
- Solvent
- Spray Booth
- Surface Preparation
- Temporary Protective Coating
- Transfer Efficiency
- Truck Bed Liner Coating
- Underbody Coating
- Uniform Finish Coating
- VOC Content

VIII. EXCLUDED CATEGORIES AND DEFINITIONS

Definitions for the following items have been deleted from Rule 410.4A because they were found unnecessary. Products from deleted categories default to the most closely related category if not called-out in a definition.

- Antiglare Coating
- Basecoat/Clearcoat System
- Camouflage Coating
- Color Match
- Extreme Performance Coating
- Grams of VOC per Liter of Coating Applied, Excluding Water and Exempt Compounds
- Grams of VOC per liter of Material
- Group I Vehicle
- Group II Vehicle
- Large/Heavy Duty Truck
- Light and Medium Duty Truck or Van
- Multistage Topcoat
- Primer Sealer
- Primer Surfacer
- Reducer/Thinner
- Three-Stage Coating System

Definitions for *Grams of VOC per Liter of Coating Applied, Excluding Water and Exempt Compounds* and *Grams of VOC per liter of Material* have been replaced with the definition *VOC Content*.

Table 1 displays the new category name that each existing or deleted product will now fall under. If a coating does not meet any of the definition for a specific category listed in Table 1, it will fall into the category labeled “Any other coating type” and the VOC limit of 250 grams per liter (g/l) will apply. Limits are expressed in grams of VOC per liter of coating thinned to the manufacturer’s maximum recommendation, excluding the volume of any water and exempt compounds.

**TABLE 1
NEW CATEGORY NAMES**

New Category	Existing/Deleted Category
Adhesion Promoter:	<ul style="list-style-type: none"> • Adhesion promoter
Cavity Wax:	<ul style="list-style-type: none"> • Cavity Wax
Deadener:	<ul style="list-style-type: none"> • Deadener
Clear Coating:	<ul style="list-style-type: none"> • Antiglare Coating • Basecoat/Clearcoat System • Extreme Performance Coating • Heat Resistant • Impact Resistant Coating • Low-Gloss Coatings • Multistage Topcoat
Color Coating:	<ul style="list-style-type: none"> • Antiglare Coating • Basecoat/Clearcoat System • Camouflage Coating • Extreme Performance Coating • Heat Resistant • Multi-Stage Topcoat System • Multi-Color Topcoat • Multi-Color Multi-Stage
Gasket/Gasket Sealing Material:	<ul style="list-style-type: none"> • Gasket/Gasket Sealing Material
Lubricating Wax/Compound	<ul style="list-style-type: none"> • Lubricating Wax/Compound
Multi-Color Coating:	<ul style="list-style-type: none"> • Multi-Color Coatings • Multi-Color Multi-stage • Multi-Color Topcoat • Three-Stage Coating System
Pretreatment Coating:	<ul style="list-style-type: none"> • Pretreatment • Pretreatment Coating • Pretreatment Wash Primer
Primer:	<ul style="list-style-type: none"> • Extreme Performance Coating • Heat Resistant • Precoat • Primer • Primer Sealer • Primer Surfacer • Water Hold-Out Coating • Weld-Thru Coatings

TABLE 1 continued

New Category	Existing/Deleted Category
Primer:	<ul style="list-style-type: none"> • Extreme Performance Coating • Heat Resistant • Precoat • Primer • Primer Sealer • Primer Surfacer • Water Hold-Out Coating • Weld-Thru Coatings
Sealer	<ul style="list-style-type: none"> • Sealer
Single-Stage Coating:	<ul style="list-style-type: none"> • Antiglare Coating • Extreme Performance Coating • General Topcoat • Heat Resistant • Impact Resistant Coating • Iridescent Topcoat • Metallic Topcoat • Nonmetallic Topcoat • Noniridescent Topcoat • Solid Color Topcoat • Topcoat (aka All Other Topcoats)
Specialty Coating	<ul style="list-style-type: none"> • Adhesion Promoters • Uniform Finish Blenders Elastomeric Materials • Gloss Flatteners • Bright Metal Trim Repair • Antiglare/Safety Coatings • Cut In or Jambing Clear Coatings
Temporary Protective Coating:	<ul style="list-style-type: none"> • Temporary Protective Coating
Truck Bed Liner Coating:	<ul style="list-style-type: none"> • Impact Resistant Coating
Trunk Interior Coating	<ul style="list-style-type: none"> • Trunk Interior Coating
Underbody Coating:	<ul style="list-style-type: none"> • Extreme Performance Coating • Impact Resistant Coating • Rubberized Asphaltic Underbody
Uniform Finish Coating:	<ul style="list-style-type: none"> • Finish Blenders
Any other coating type:	<ul style="list-style-type: none"> • Bright Metal Trim Repair Coating

IX. EXEMPTIONS

The Exemptions Section of the amended Rule has been moved from Section III to Section V, immediately after Definitions and before Requirements. None of the previous exemptions have been removed but the following exemptions have been added:

- *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.*
- *Any automotive coating or associated solvent that is offered for sale, sold, or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging.*
- *Any coating applied to motor vehicles or mobile equipment, or their associated parts and components, during manufacture on an assembly line.*
- *Surface Preparation and Equipment Cleanup Requirements, 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 Section VII.C.4 of this Rule.*

X. CHANGES IN REQUIREMENTS

The following requirements have been added to Rule 410.4A:

- Most Restrictive VOC Limit: If anywhere on the container of any automotive coating, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a person, any representation is made that indicates that the coating meets the definition of or is recommended for use for more than one of the coating categories listed in Table of Standards, then the lowest VOC content limit shall apply.
- Spray gun: If a spray gun is used, the end user must demonstrate that the gun meets the HVLP definition in Section IV.V in design and use. A satisfactory demonstration must be based on the manufacturer's published technical material on the design of the gun and by a demonstration of the operation of the gun using an air pressure tip gauge from the manufacturer of the gun.
- Surface Preparation: VOC content of surface preparation solvent shall not exceed 25 g/l (0.2 lb/gal), as calculated pursuant to Section IV.RR.3, unless Section V.E applies.

- Sell-Through/Existing Stock of Coatings: A coating manufactured prior to amendment date of this rule, that complied with the VOC Content limit(s) in effect at that time, may be sold, supplied, or offered for sale for 12 months after rule adoption date. Such a coating may be applied at any time, both before and after adoption date, provided manufacture Date-Code and VOC Content is clearly printed on coating container.

The following requirements of Rule 410.4A have been revised:

- VOC Content Limits has been revised from: ~~*Except as provided by Subsection IV.C., effective on the dates specified, no person shall refinish, or spot/panel repair any Group I vehicle, or where color match is required, any Group II vehicle, Mobile Equipment, or parts and components of such vehicles or equipment, using a coating with VOC content in excess of the following limits as applied.*~~ To: *No person shall apply a coating to any motor vehicle, mobile equipment, or its associated parts and components, with a VOC regulatory content, as calculated pursuant to Section IV.RR.1, in excess of the limits expressed in Table of Standards, except as provided in Sections VI.C and VI.J.*

- Alternate Emission Control has been revised from: ~~*In lieu of complying with VOC content limits specified in subsections IV.A. and IV.B., air pollution control equipment with a capture efficiency of at least 85% and a control efficiency of at least 90% may be used.*~~ To: *Alternate Emission Control: In lieu of complying with VOC content limits specified in Table of Standards, an emission control system with a capture efficiency of at least 90% and a control efficiency of at least 90% may be used if it has been approved in writing by the Air Pollution Control Officer (APCO). Any approved emission control system must be maintained and used in proper working condition at all times. Use of a VOC emission control system shall not result in emissions in excess of those that would have been emitted had the operator complied with the provisions of Section V.A.*

- Application has been revised from: ~~*No person shall coat any Group I or Group II Vehicle, or Mobile Equipment, or parts and components of such vehicles and equipment, unless one of the following methods is used.*~~ To: *Coating Application Methods: No person shall apply any coating to any motor vehicle, mobile equipment, or associated parts and components unless one of the following application methods is used.*

Section VI.E does not apply to underbody coatings, graphic arts operations, truck bed liner coatings, or any coating use of less than one (1) fluid ounce (29.6 milliliters).

- ~~*Other application method demonstrated to achieve at least 65% transfer efficiency, for example, flow or continuous coating.*~~ Has been revised to: *Any alternative coating application method which has been demonstrated*

to achieve at least 65% transfer efficiency or the equivalent efficiency of an HVLP and approved, in writing, by the EPA and APCO.

- Storage and Disposal has been revised from: ~~Regardless of VOC content, all VOC-containing materials used in solvent cleaning operations, such as solvents, and cloth and paper moistened with solvents, shall be stored in non-absorbent, non-leaking containers kept closed at all times except when filling or emptying.~~ To: Regardless of VOC content, all automotive coating components, automotive coatings, and solvents, shall be stored in non-absorbent, vapor-tight containers kept closed at all times except when filling or emptying.
- ~~Prohibition of Sale, No person shall offer for sale or sell within the District any coating if such product is prohibited by any provisions of this Rule. This prohibition shall apply to sale of any coating to be applied at any physical location within the District.~~

Has been revised to: 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 with a VOC content in excess of the limits specified in Section VI.A.

Notwithstanding the provisions of this section, a person may manufacture, blend, repackage for sale, supply, sell, offer for sale, or distribute a coating with a VOC content in excess of the limits specified in section VI.A under the following circumstances and provided all of the requirements of section VII.C.6 are also met:

1. The coating is used exclusively within an emission control system as allowed in Section IV.C, or
 2. Coating is exempt under one or more of the provisions of Section V.A.
- ~~Prohibition of Specification: No person shall solicit or require for use or specify application of a coating on a Group I Vehicle or Group II Vehicle and Mobile Equipment or its parts and components, if such use or application results in a violation of provisions of this Rule. This prohibition shall apply to all written or oral contracts under terms of which any coating subject to provisions of this Rule is to be applied to any vehicle, mobile equipment or part or component at any physical location within the District.~~ Has been revised to: No person shall solicit or require the use of, or specify the application or use of any coating or solvent on a motor vehicle or mobile equipment, or its associated parts and components, if such use or application results in a violation of this Rule. This prohibition shall apply to all written or oral contracts, including but not limited to, job orders, under the terms of which any coating or solvent subject to provisions of this Rule is to be applied. This prohibition shall not apply to coatings or solvents that meet the criteria specified in Section VI.H.

The following requirements of Rule 410.4A have been deleted:

- ~~VOC Content Limits: Except as provided by Subsection IV.C., effective on the dates specified, where color match is not required, no person shall refinish or spot/panel repair any Group II vehicle, or Mobile Equipment, or parts and components of such vehicle or equipment using a coating with a VOC content in excess of the following limits as applied.~~
- ~~1. Surface Cleaning: No material shall be used containing VOC in excess of 200 grams per liter (1.7 lb/gal) of material to remove dirt, oils, or other contaminants prior to application of surface coatings or adhesives.~~
- ~~2. Stripping: No material shall be used containing VOC in excess of 200 grams per liter of material to strip any coating.~~
- ~~4. Cleaning of Polyester Resin Application Equipment: Solvents used for cleaning polyester resin application equipment shall comply with one of the limits specified below:~~
 - a. ~~Solvent shall have a VOC content of 200 grams or less per liter (1.7 lb/gal); or~~
 - b. ~~Solvent shall have a VOC content of 1100 grams or less per liter (9.2 lb/gal) and a VOC composite partial pressure of 1.0 mm Hg or less at 20/C (68/F).~~
- ~~1. Specialty Coatings: No person shall use any specialty coating with a VOC content in excess of 840 g/l (7.0 lbs/gal), excluding water and exempt compounds. Where use of specialty coatings, except antiglare/safety coatings, exceeds one gallon per day, use of such coatings shall not exceed 5.0 percent of all coatings applied on a daily basis.~~

XI. VOC CONTENT LIMITS FOR MOTOR VEHICLE COATINGS

The previous version of Rule 410.4A (3/7/96) had two sets of VOC limits for automotive coatings commonly referred to as Group I and Group II vehicles. Coatings used on passenger cars typically have higher VOC limits than coatings used on large vehicles such as trucks and buses. Amended Rule 410.4A eliminates Group I and Group II vehicles categories and establishes one set of VOC limits for passenger vehicles, heavy-duty vehicles, and mobile equipment.

The previous Rule also had composite VOC limits for multi-stage systems that apply to the total VOC content of the color coat and clear coat combined. Amended Rule 410.4A eliminates composite VOC limits for multi-stage systems and replaces them with specific VOC limits for clear coatings and color coatings.

Amended Rule 410.4A establishes VOC content limits for the following seventeen automotive coating categories: Cavity Wax, Adhesion Promoter, Cavity Wax, Clear Coating, Color Coating, Deadener, Gasket/Gasket Sealing Material, Lubricating Wax/Compound, Multi-Color Coating, Pretreatment Coating, Primer, Sealer, Single-Stage Coating, Specialty Coating, Temporary Protective Coating, Truck Bed Liner Coating, Underbody Coating, Uniform Finish Coating, and Any other coating type. These automotive coating categories were chosen because they are similar to those in existing California air district automotive refinishing rules.

Table 2 details the maximum VOC content limit for each of the seventeen automotive coating categories. Limits are expressed in grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation, excluding the volume of water and any exempt compound. If a coating is represented in such a way that indicates it can be used in more than one coating category listed in Table 1, then the lowest, most restrictive, VOC content limit will apply. If a coating does not meet any of the definitions of a specific category then that coating will default to the "Any other coating type" category and a VOC limit of 250 grams per liter (g/l) will apply.

TABLE 2
VOC CONTENT LIMITS FOR MOTOR VEHICLE COATINGS
Content expressed in Grams per Liter (Pounds per Gallon)
Less Water and Exempt Compounds

Coating Category	VOC Limit
Adhesion Promoter	540 (4.5)
Cavity Wax	650 (5.4)
Clear Coating	250 (2.1)
Color Coating	420 (3.5)
Deadener	650 (5.4)
Gasket/Gasket Sealing Material	200 (1.7)
Lubricating Wax/Compound	700 (5.8)
Multi-Color Coating	680 (5.7)
Pretreatment Coating	660 (5.5)
Primer	250 (2.1)
Sealer	650 (5.4)
Single-Stage Coating	340 (2.8)
Specialty Coating	540 (4.5)
Temporary Protective Coating	60 (0.5)
Truck Bed Liner Coating	200 (1.7)
Trunk Interior Coating	650 (5.4)
Underbody Coating	650 (5.4)
Uniform Finish Coating	540 (4.5)
Any other coating type	250 (2.1)

XII. SOLVENTS

For purpose of this rule, solvents are defined as any liquid containing an organic compound or combination of organic compounds used as diluent, thinner, dissolver, viscosity reducer, cleaning agent, or other similar uses. These liquids are principally derived from petroleum and include petroleum distillates, chlorinated hydrocarbons, chlorofluorocarbons, ketones, and alcohols. Solutions, emulsions, and dispersions of water and soap, or water and detergent, are not considered organic solvents. Soaps and detergents are considered water based surfactants.

Solvents used for cleaning of coatings application equipment remains the same with a VOC content limit of 950 grams or less per liter (7.9 lb/gal) of material and with a VOC composite partial pressure of 35 mm Hg or less at 20/C (68/F). The District has retained this limit largely because the equipment cleaning methods require solvents to be contained in a closed system. However, surface preparation solvents have a revised VOC limit that shall not exceed 25 g/l (0.2 lb/gal).

The 25 g/l limit is the lowest VOC content limit that is technologically and commercially feasible and has been since January 1, 2009. 25 g/l VOC content can be achieved through the use of exempt compounds. Many air districts require solvents in various coating operation rules to meet the 25 g/l VOC content limit.

XIII. ADMINISTRATIVE REQUIREMENTS

Rule 410.4A contains an extensive revision of the Administrative Requirements section. Please see Section VII, Administrative Requirements of Appendix A for complete details and Section VII, Administrative Requirements of Appendix B for ~~strikeout~~ underline changes.

XIV. TEST METHODS

Rule 410.4A contains an extensive revision of the Test Methods section. Please see Section VIII, Test Methods of Appendix A for complete details and Section VIII, Test Methods of Appendix B for ~~strikeout~~ underline changes..

XV. ECONOMIC IMPACTS

Economic impacts are quantified to the extent feasible, but economic impact analyses can be inherently imprecise by nature, especially given the unpredictable behavior of companies in a highly competitive market. Therefore, some projections are necessarily qualitative or semi-quantitative, based on general observations about the motor vehicle coatings industry.

Economic impact analysis for Amended Rule 410.4A provides a general picture of the economic impacts that a typical businesses might encounter. However, staff recognizes that individual companies may experience impacts different than those projected in this analysis.

Information provided in this economic analysis is based on ARB's findings in their October 2005, Staff Report for the Proposed SCM for Automotive Coatings. The data is associated with statewide implementation of the Motor Vehicle Coatings SCM.

ARB estimates overall cost-effectiveness of the Motor Vehicle Coatings SCM to be approximately \$1.43 (in current dollars) per pound of VOCs reduced. This cost-effectiveness is comparable in magnitude to that reported for other ARB consumer product regulations and measures, which generally have fallen within a range of no cost to about \$6.90 per pound of VOCs reduced. For example, the SCM for architectural coatings had an average cost-effectiveness of \$3.20 per pound of VOCs reduced.

ARB found that most automotive refinishing facilities and coatings manufacturers would be able to absorb the cost of the proposed SCM with no significant adverse impacts on their profitability. This finding is indicated by ARB's estimated change in "Return on Owner's Equity" (ROE) analysis. The analysis found an average decrease in the state-wide ROE of about 0.07 percent for coatings manufacturers and 15 percent for automotive refinishing facilities.

If all costs of the proposed SCM are absorbed by automotive refinishing facilities, the decrease in ROE exceeds the 10 percent threshold typically used to indicate a potential for adverse impacts on profitability. However, ARB expects the costs incurred by manufacturers and automotive refinishing facilities to be passed on to consumers. If the entire cost of the proposed SCM were passed on to consumers, the average price for a repair would increase by about \$11. This represents an increase of about 0.5% for a \$2,200 repair.

It is expected that most businesses will pass on their increased costs to consumers. Therefore, no noticeable change in employment, business creation, elimination, expansion, or business competitiveness in California will be adversely affected. In addition, ARB's economic analysis has found no significant adverse fiscal impacts on any local or State agencies.

XVI. ENVIRONMENTAL IMPACTS

Both the California Environmental Quality Act (CEQA) and ARB policy require an evaluation of the potential adverse environmental impacts of proposed projects. Based on the information provided in ARB's October 2005 Staff Report for the Proposed SCM for Automotive Coatings, District has determined that no significant adverse environmental impacts should occur as a result of adopting Amended Rule 410.4A.

The primary environmental benefit of Amended Rule 410.4A is a reduction in the formation of tropospheric (ground level) ozone, PM10 and PM2.5. It has long been known that exposure to ground level ozone, PM10 and PM2.5 have adverse impacts on public health. Amended Rule 410.4A will help protect public health by reducing the public's exposure to these potentially harmful emissions.

Additionally, automotive coatings contain several known TACs such as toluene, xylenes, and methyl ethyl ketone (MEK). Current use of these compounds account for approximately 27 percent of the VOC emissions from automotive refinishing coatings. To some extent these TACs can be reduced by reformulation to lower VOC coatings. District Rule 102 (Definitions) lists Tertiary Butyl Acetate (t-butyl acetate) TBAC or TBAC as an exempt organic compound that is not a VOC for purposes of VOC emissions limitations or VOC content requirements. It is estimated that TBAC could be used to substitute toluene, xylenes, and MEK by as much as 50 percent, thereby substantially reducing VOC emissions.

Pursuant to the Section 15061, Subsections (2) & (3) of the CEQA Guidelines, staff will prepared and file a Notice of Exemption for this project upon adoption.

XVII. SOCIOECONOMIC IMPACTS

CHSC Section 40728.5 exempts districts with a population of less than 500,000 persons from the requirement to assess the socioeconomic impacts of adopting rules. Eastern Kern County population is below 500,000 persons.

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APPENDIX A:
AMENDED RULE 410.4A
MOTOR VEHICLE AND MOBILE EQUIPMENT
REFINISHING OPERATIONS

RULE 410.4A Motor Vehicle and Mobile Equipment Refinishing Operations - Adopted 5/6/91, Amended 4/6/95, 3/7/96, 3/13/14

I. Purpose

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, or associated parts and components are coated.

II. Applicability

The provisions of this Rule are enforceable upon amendment date and shall apply to any person who supplies, sells, offers for sale, manufactures, distributes, uses, applies, or solicits the use or application of any automotive coating or associated solvent within the District.

III. Severability

Each provision of this rule shall be deemed severable, and in the event that any provision of this rule is held to be invalid, the remainder of this rule shall continue in full force and effect.

IV. Definitions

- A. Adhesion Promoter: A coating, which is labeled and formulated to be applied to uncoated plastic surfaces to facilitate bonding of subsequent coatings, and on which, a subsequent coating is applied.
- B. Aerosol Coating Product: A pressurized coating product containing pigments or resins that dispenses product ingredients by means of a propellant, and is packaged in a disposable can for hand-held application, or for use in specialized equipment for ground traffic/marketing applications.
- C. APCO: Air Pollution Control Officer of the Eastern Kern Air Pollution Control District.
- D. 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.
- E. Associated Parts and Components: Structures, devices, pieces, modules, sections, assemblies, subassemblies, or elements of motor vehicles or mobile equipment that are designed to be a part of motor vehicles or mobile equipment but which are not attached to motor vehicles or mobile equipment at the time of coating the structure, device, piece, module, section, assembly, subassembly, or element. “Associated parts and components” does not include circuit boards.

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- F. Automotive Coating: Any 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. Any reference to automotive refinishing or automotive coating made by a person on the container or in product literature constitutes a recommendation for use in motor vehicle or mobile equipment refinishing.
- G. 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.
- H. Automotive Refinishing Facility: Any shop, business, location, or parcel of land where motor vehicles or mobile equipment or their associated parts and components are coated, including autobody collision repair shops. “Automotive Refinishing Facility” does not include the original equipment manufacturing plant where the motor vehicle or mobile equipment is completely assembled.
- I. California Air Resources Board (CARB or ARB): Air Resources Board of the California Environmental Protection Agency.
- J. Cleaning Operations: The removal of loosely held uncured adhesives, inks, coatings, or contaminants, including, but not limited to, dirt, soil, or grease, from motor vehicles, mobile equipment, associated parts and components, substrates, parts, products, tools, machinery, equipment, or general work areas.
- K. Clear Coating: Any coating that contains no pigments and is labeled and formulated for application over a color coating or clear coating.
- L. Coating: A material which is applied to a surface and forms a film in order to beautify, preserve, repair, or protect such a surface.
- M. 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.
- N. Electrodeposition: Applying an electrically-charged dip coating onto object to be coated.
- O. 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.
- P. Emission Control System: Any combination of capture systems and control devices used to reduce VOC emissions from automotive coating operations.
- Q. EPA: The United States Environmental Protection Agency.

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- R. Exempt Compounds: As defined in District Rule 102, Definitions, “Exempt Compounds”.
- S. Graphic Arts Operation: Application of logos, letters, numbers or graphics to a painted surface with or without use of a template.
- T. High-Volume, Low-Pressure (HVLP): Spray equipment permanently labeled as such and 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 and with liquid supply pressure less than 50 psig.
- U. Metallic/Iridescent Topcoat: Coating as applied containing more than 5 g/1 (0.042 lb/gal) of visible metal or iridescent particles, where such particles are visible in the dried film.
- V. Mobile Equipment: Equipment drawn or capable of being driven on a roadway, including, but not limited to a: truck body, truck trailer, utility body, camper shell, mobile crane, bulldozer, construction and farm heavy equipment, concrete mixers, street cleaner, golf cart, all terrain vehicles, implements of husbandry, military tank or other tracked military vehicle and hauling equipment used inside and around airports, depots, and industrial and commercial plants.
- W. Motor Vehicle: As defined in Rule 102, Definitions.
- X. 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.
- Y. Precoat: Coating applied to bare metal primarily to deactivate metal surface for corrosion resistance and adhesion.
- Z. Pretreatment Coating: Coating containing a minimum of 0.5% acid by weight and not more than 16 percent solids by weight necessary to provide surface etching and is labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and adhesion.
- AA. 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.
- BB. Refinish: Coating of vehicles, their parts and components, or mobile equipment, including partial body collision repairs, for the purpose of protection or beautification and subsequent to the original coating applied at an Original Equipment Manufacturing (OEM) plant coating assembly line.
- CC. Single-Stage Coating: Any pigmented coating, excluding primers and multi-color coatings, labeled and formulated for application without a subsequent clear coat. Single-stage coatings include single-stage metallic/iridescent coatings.

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- DD. Solvent: As defined in Rule 410.3, Organic Solvent Degreasing Operations.
- EE. 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 APCO and provide adequate ventilation, air velocity, and safety features, as required by the Uniform Fire Code.
- FF. Specialty Coating: Coating necessary for unusual job performance requirements, including, but not limited to, adhesion promoters, uniform finish blenders elastomeric materials, gloss flatteners, bright metal trim repair, anti-glare/safety coatings, and cut in or jambing clear coatings.
- GG. Spot/Panel Repair: Non-assembly line process of repairing and restoring a portion of a motor vehicle, or associated parts or components of less than 1 square foot (929 square centimeters).
- HH. 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.
- II. Temporary Protective Coating: Any coating which is labeled and formulated for the purpose of temporarily protecting areas from overspray or mechanical damage.
- JJ. Topcoat: Coating applied over a primer or an original equipment manufacturer finish for the purpose of protection or appearance.
- KK. Touch-Up Coating: A coating used to cover minor coating imperfections appearing after the main coating operation.
- LL. Transfer Efficiency: The amount of coating solids adhering to the object being coated divided by the total amount of coating solids sprayed, expressed as a percentage.
- MM. 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.
- NN. 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.
- OO. 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.
- PP. Utility Body: Special purpose service compartment or unit to be bolted, welded, or affixed onto an existing cab and chassis. Such compartment may serve as storage for equipment or parts.

QQ. Volatile Organic Compound (VOC): Any compound containing at least one atom of carbon, excluding Exempt Compounds as listed in Rule 102 Definitions.

RR. VOC Content:

1. VOC regulatory for Coatings: VOC in grams per liter of coating, excluding water and exempt compounds, and shall be calculated by the following equation:

$$\text{VOC regulatory content} = \frac{W_v - W_w - W_{ec}}{V_m - V_w - V_{ec}}$$

2. VOC actual for Coatings: VOC in grams per liter of material shall be calculated using the following equation:

$$\text{VOC actual content} = \frac{W_v - W_w - W_{ec}}{V_m}$$

3. VOC content for Solvents: VOC in grams per liter of material shall be calculated by the following equation:

$$\text{VOC content} = \frac{W_v - W_w - W_{ec}}{V_m}$$

Where:

VOC content = amount of volatile organic compounds in grams/liter

W_v = weight of volatiles in grams

W_w = weight of water in grams

W_{ec} = weight of exempt compounds in grams

V_m = volume of material (coating or solvent, as applicable) in liters

V_w = volume of water in liters

V_{ec} = volume of exempt compounds in liters

V. Exemptions

A. Requirements of this Rule shall not apply to the following operations:

1. Graphic Arts Operations as defined in Section IV.S.
2. 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.
3. Coating operations employing hand-held non-refillable aerosol cans, 18 oz. or less, provided the area to be covered does not exceed nine square feet per vehicle to repair minor surface damage and imperfections.
4. Any automotive coating or associated solvent that is offered for sale, sold, or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging.

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5. Any coating applied to motor vehicles or mobile equipment, or their associated parts and components, during manufacture on an assembly line.
- B. Requirements of Section VI.D (Spray Booth) shall not apply to:
1. Touch-up coating operations as defined in Section IV.KK, not exceeding nine square feet per vehicle.
 2. Coating of motor vehicle engine compartments, engine components, and suspension components, provided such components are replaced in the vehicle.
 3. Application of primers, primer surfacers and precoats not exceeding nine square feet per vehicle, provided VOC content does not exceed 250 g/l and coatings contain no lead or chromium compounds.
 4. Application of coatings to a vehicle, due to shape or size, not reasonably contained in a spray booth. To qualify for this exemption a person shall comply with the following requirements:
 - a. Submit a written request on a case by case basis to the APCO describing vehicle(s) to be coated, size of spray booth, physical size of vehicle(s) (length, width, and height), number of vehicle(s) to be coated, time required to paint vehicle(s), estimated volume of coating(s) to be used, date when vehicle(s) or mobile equipment is to be coated, and VOC content of each coating used;
 - b. Such request shall be submitted ten calendar days prior to surface coating a motor vehicle or mobile equipment outside a spray booth. The APCO shall provide a written determination to the requester within five calendar days of proposed surface coating of the motor vehicle or mobile equipment; and
 - c. The APCO may grant written approval for a specified time period, not to exceed one year.
- C. Coating operations and/or facilities exempt from this Rule shall comply with all other applicable District prohibitory Rules.
- D. Provisions of Sections VI.C. through VI.G. and Section VII. shall not apply to coating of one vehicle per twelve month period, by the registered owner of the vehicle being painted, provided the surface coating does not contain lead or chromium compounds.
- E. Section VI.F, Surface Preparation and Equipment Cleanup Requirements, 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 nonaerosol, 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 Section VII.C.4 of this Rule.

VI. Requirements

- A. VOC Content Limits: No person shall apply a coating to any motor vehicle, mobile equipment, or its associated parts and components, with a VOC regulatory content, as calculated pursuant to Section IV.RR.1, in excess of the limits expressed in Table of Standards, except as provided in Sections VI.C and VI.J.

**TABLE OF STANDARDS
VOC CONTENT LIMITS FOR MOTOR VEHICLE COATINGS
Content expressed in Grams per Liter (Pounds per Gallon)
Less Water and Exempt Compounds**

Coating Category	VOC Limit
Adhesion Promoter	540 (4.5)
Cavity Wax	650 (5.4)
Clear Coating	250 (2.1)
Color Coating	420 (3.5)
Deadener	650 (5.4)
Gasket/Gasket Sealing Material	200 (1.7)
Lubricating Wax/Compound	700 (5.8)
Multi-Color Coating	680 (5.7)
Pretreatment Coating	660 (5.5)
Primer	250 (2.1)
Sealer	650 (5.4)
Single-Stage Coating	340 (2.8)
Specialty Coating	540 (4.5)
Temporary Protective Coating	60 (0.5)
Truck Bed Liner Coating	200 (1.7)
Trunk Interior Coating	650 (5.4)
Underbody Coating	650 (5.4)
Uniform Finish Coating	540 (4.5)
Any other coating type	250 (2.1)

- B. Most Restrictive VOC Limit: If anywhere on the container of any automotive coating, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a person, any representation is made that indicates that the coating meets the definition of or is recommended for use for more than one of the coating categories listed in Table of Standards, then the lowest VOC content limit shall apply.

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- C. Alternate Emission Control: In lieu of complying with VOC content limits specified in Table of Standards, an emission control system with a capture efficiency of at least 90% and a control efficiency of at least 90% may be used if it has been approved in writing by the Air Pollution Control Officer (APCO). Any approved emission control system must be maintained and used in proper working condition at all times. Use of a VOC emission control system shall not result in emissions in excess of those that would have been emitted had the operator complied with the provisions of Section V.A.
- D. Spray Booth: All surface coatings subject to this Rule shall be applied within a permitted, properly maintained, and operational paint spray booth located at a site with proper city or county zoning.
- E. Coating Application Methods: No person shall apply any coating to any motor vehicle, mobile equipment, or associated parts and components unless one of the following application methods is used:
1. Brush, dip, flow, or roll coating conducted in accordance with manufacturer's recommendations.
 2. Electrostatic or electrodeposition application conducted in accordance with manufacturer's recommendations.
 3. HVLP spray equipment operated in accordance with manufacturer's recommendations.
 4. Spray gun: If a spray gun is used, the end user must demonstrate that the gun meets the HVLP definition in Section IV.T in design and use. A satisfactory demonstration must be based on the manufacturer's published technical material on the design of the gun and by a demonstration of the operation of the gun using an air pressure tip gauge from the manufacturer of the gun.
 5. Any alternative coating application method which has been demonstrated to achieve at least 65% transfer efficiency or the equivalent efficiency of an HVLP and approved, in writing, by APCO.

Section VI.E does not apply to underbody coatings, graphic arts operations, truck bed liner coatings, or any coating use of less than one (1) fluid ounce (29.6 milliliters).

- F. Surface Preparation and Equipment Cleanup Requirements: No person shall conduct surface preparation or equipment cleanup for activities subject to provisions of this Rule unless the following VOC limits are met and methods are used:
1. VOC content of surface preparation solvent shall not exceed 25 g/l (0.2 lb/gal), as calculated pursuant to Section IV.RR.3, unless Section V.E applies.

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2. Coatings Application Equipment Cleaning: Solvents used for cleaning of coatings application equipment shall comply with both limits specified below:
 - a. Solvent shall have a VOC content of 950 grams or less per liter (7.9 lb/gal) of material; and
 - b. Solvent shall have a VOC composite partial pressure of 35 mm Hg or less at 20/C (68/F).
3. Cleaning Devices and Methods Requirements: No person shall perform solvent cleaning operations unless one of the following cleaning devices or methods is used:
 - a. Wipe cleaning;
 - b. Spray bottles or containers with a maximum capacity of 16 fluid ounces from which solvents are applied without a propellant-induced force;
 - c. Cleaning equipment having a closed solvent container during cleaning operations, except when depositing and removing objects to be cleaned, and closed during nonoperation except during maintenance and repair of the cleaning equipment itself;
 - d. Remote reservoir cold cleaner operated in conformance with District Rule 410.3, Organic Solvent Degreasing Operations;
 - e. System totally enclosing spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, and draining procedures;
 - f. Non-atomized solvent flow method collecting cleaning solvent in a container or a collection system closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or
 - g. Solvent flushing method discharging cleaning solvent into a container closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. Discharged solvent from such equipment shall be collected into containers without atomizing into open air. Solvent may be flushed through the system by air or hydraulic pressure, or by pumping.
- G. Storage and Disposal: Regardless of VOC content, all automotive coating components, automotive coatings, and solvents, shall be stored in non-absorbent, vapor-tight containers kept closed at all times except when filling or emptying.
- H. 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 with a VOC content in excess of the limits specified in Section VI.A.

Notwithstanding the provisions of this section, a person may manufacture, blend, repackage for sale, supply, sell, offer for sale, or distribute a coating with a VOC content in excess of the limits specified in section VI.A under the following circumstances and provided all of the requirements of section VII.C.6 are also met:

1. The coating is used exclusively within an emission control system as allowed in Section VI.C, or
 2. Coating is exempt under one or more of the provisions of Section V.A.
- I. Prohibition of Specification: No person shall solicit or require the use of, or specify the application or use of any coating or solvent on a motor vehicle or mobile equipment, or its associated parts and components, if such use or application results in a violation of this Rule. This prohibition shall apply to all written or oral contracts, including but not limited to, job orders, under the terms of which any coating or solvent subject to provisions of this Rule is to be applied. This prohibition shall not apply to coatings or solvents that meet the criteria specified in Section VI.H.
- J. Sell-Through/Existing Stock of Coatings: A coating manufactured prior to amendment date of this rule, that complied with the VOC Content limit(s) in effect at that time, may be sold, supplied, or offered for sale for 12 months after rule adoption date. Such a coating may be applied at any time, both before and after adoption date, provided manufacture Date-Code and VOC Content is clearly printed on coating container.

VII. Administrative Requirements

A. Compliance Statement Requirement

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:
 - a. The VOC actual for coatings and VOC regulatory for coatings, expressed in grams per liter;
 - b. The weight percentage of volatiles, water, and exempt compounds;
 - c. The volume percentage of water and exempt compounds; and
 - d. The density of the material (in grams per liter).
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:
 - a. The VOC actual for coatings and VOC regulatory for coatings, expressed in grams per liter;
 - b. The weight percentage of volatiles, water, and exempt compounds;
 - c. The volume percentage of water and exempt compounds; and
 - d. The density of the material (in grams per liter).

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3. The manufacturer and repackager of solvents subject to this rule shall include the VOC content as supplied, calculated pursuant to section IV.RR.3, expressed in grams per liter, on product data sheets, or an equivalent medium.

B. Labeling Requirements

1. The manufacturer and repackager of automotive coatings or automotive coating components shall include on all containers the applicable use category(ies), and the VOC actual for coatings and VOC regulatory for coatings, as supplied, expressed in grams per liter.
2. The manufacturer and repackager of solvents subject to this rule shall include on all containers the VOC content for solvents, as supplied, expressed in grams per liter.

C. Record Keeping Requirements

Any person who uses coatings or solvents, subject to this rule, shall maintain and have the following available on site at all times:

1. A current list of all VOC containing products in use that includes any data necessary to evaluate compliance, including but not limited to, the following information as applicable:
 - a. Material name and manufacturer's identification;
 - b. Application method;
 - c. Material type (coating as listed in Table of Standards) and specific use instructions;
 - d. Specific mixing instructions;
 - e. VOC actual and VOC regulatory for coatings, as applied, or VOC content for solvent.
2. Daily coating and solvent use records, including the following information for each:
 - a. Volume of each coating/solvent mix ratio;
 - b. VOC content in grams/liter (or pounds/gallon) as applied/used;
 - c. Volume of each coating/solvent in liters (or gallons) applied/used;
 - d. 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.

3. Current manufacturer specification sheets, material safety data sheets, technical data sheets, or air quality data sheets, which list the VOC actual for coatings and VOC regulatory for coatings of each ready-to-spray coating (based on the manufacturer's stated mix ratio), and VOC content of each solvent.
4. Purchase records identifying the coating type (as listed in Table of Standards), name, and volume of coatings and solvents.

5. Alternate Emissions Control Records: Any 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. “Key system operating parameters” are those parameters necessary to ensure or document compliance with Section VI.C., including, but not limited to, temperatures, pressure drops, and air flow rates.
6. Record Keeping Requirements for Prohibition of Sale: Any person claiming an exception specified in Section VI.H 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; and
 - e. The specific exception being utilized under Section VI.C.
7. Record Retention: Records required by this Rule shall be retained for a minimum of three years and made available to the APCO upon request.

VIII. 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.

- A. Acid Content: Measure of acid content 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” (October 2003).
- B. Analysis of Samples: Samples of VOC as specified in this Rule shall be analyzed by EPA Method 24 as set forth in Appendix A of Title 40 of the Code of Federal Regulations (40 CFR) Part 60, “Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings”. Analysis of halogenated exempt compounds shall be conducted using CARB Method 422, “Determination of Volatile Organic Compounds in Emissions from Stationary Sources” (September 12, 1990).
- C. Alternative Test Methods: The use of other test methods which are determined to be equivalent or better and approved, in writing, by the APCO, ARB, and EPA may be used in place of the test methods specified in this rule.

- D. Control and Capture Efficiency: Capture and control efficiency of emission control systems shall be determined as specified in 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.
- E. Determination of Emissions: Emissions of VOC shall be measured by EPA Method 25, 25A, or 25B, as applicable and analysis of halogenated exempt compounds shall be conducted using CARB Method 432, "Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings" (September 12, 1998).
- F. 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 422, CARB Method 432, or South Coast AQMD Method 303-91, "Determination of Exempt Compounds" (February 1993).
- G. HVLP Equivalency: Spray Equipment HVLP equivalency shall be determined by using South Coast Air Quality Management District's "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns" (September 26, 2002).
- H. Metallic Content: The metallic content of a coating shall be determined by South Coast Air Quality Management District Test Method 318-95, "Determination of Weight Percent Elemental Metal in Coatings by X-ray" (July 1996).
- I. Transfer Efficiency: Spray equipment transfer efficiency shall be determined by using South Coast Air Quality Management District Method "Spray Equipment Transfer Efficiency Test Procedure for Equipment User", (May 24, 1989).
- J. VOC Composite Partial Pressures: VOC composite partial pressures shall be determined using either manufacturer's information regarding formulation or using ASTM Methods E169-04, Standard Practices for General Techniques of Ultraviolet-Visible Quantitative Analysis or E260-96, Standard Practice for Packed Column Gas Chromatography for determination of mole fractions and then summing products of each VOC component's vapor pressure and its mole fraction. For materials containing no non-VOC components, VOC composite partial pressure can be measured directly by ASTM Method D2879-10 Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope.
- K. VOC Emissions from Spray Gun Cleaning Systems: VOC emissions shall be determined using South Coast AQMD "General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems" (October 3, 1989).

APPENDIX B:
AMENDED RULE 410.4A
MOTOR VEHICLE AND MOBILE EQUIPMENT
REFINISHING OPERATIONS
STRIKEOUT UNDERLINE VERSION

RULE 410.4A **Motor Vehicle and Mobile Equipment Refinishing Operations** - Adopted 5/6/91, Amended 4/6/95, 3/7/96, 3/13/14

I. Purpose

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, or associated parts and components are coated.

II. Applicability

The provisions of this Rule are enforceable upon amendment date and shall apply to any person who supplies, sells, offers for sale, manufactures, distributes, uses, applies, or solicits the use or application of any automotive coating or associated solvent within the District.

III. Severability

Each provision of this rule shall be deemed severable, and in the event that any provision of this rule is held to be invalid, the remainder of this rule shall continue in full force and effect.

IV. Definitions

A. Adhesion Promoter: A coating, which is labeled and formulated to be applied to uncoated plastic surfaces to facilitate bonding of subsequent coatings, and on which, a subsequent coating is applied.

B. Aerosol Coating Product: A pressurized coating product containing pigments or resins that dispenses product ingredients by means of a propellant, and is packaged in a disposable can for hand-held application, or for use in specialized equipment for ground traffic/marketing applications.

C. APCO: Air Pollution Control Officer of the Eastern Kern Air Pollution Control District.

~~A. Antiglare Coating: coating not reflecting light.~~

D. 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.

E. Associated Parts and Components: Structures, devices, pieces, modules, sections, assemblies, subassemblies, or elements of motor vehicles or mobile equipment that are designed to be a part of motor vehicles or mobile equipment but which are not attached to motor vehicles or mobile equipment at the time of coating the structure, device, piece, module, section, assembly, subassembly, or element. “Associated parts and components” does not include circuit boards.

F. Automotive Coating: Any 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. Any reference to automotive refinishing or automotive coating made by a person on the container or in product literature constitutes a recommendation for use in motor vehicle or mobile equipment refinishing.

G. 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.

H. Automotive Refinishing Facility: Any shop, business, location, or parcel of land where motor vehicles or mobile equipment or their associated parts and components are coated, including autobody collision repair shops. “Automotive Refinishing Facility” does not include the original equipment manufacturing plant where the motor vehicle or mobile equipment is completely assembled.

~~B. Basecoat/Clearcoat System: topcoat system composed of pigmented basecoat followed by transparent clearcoat. A basecoat/clearcoat system's Volatile Organic Compound (VOC) content shall be calculated using the following formula:~~

$$\text{VOC}_{bc/cc} = \frac{\text{VOC}_{bc} + 2 \text{VOC}_{cc}}{3}$$

~~Where:~~

~~VOC_{bc/cc} = sum of VOC content as applied in basecoat (bc) and clearcoat (cc) system.~~

~~VOC_{bc} = VOC content as applied of any given basecoat.~~

~~2 VOC_{cc} = two times VOC content as applied of any given clearcoat.~~

~~C. Camouflage Coating: applied on military vehicle or mobile equipment intended to conceal such equipment from detection.~~

I. California Air Resources Board (CARB or ARB): Air Resources Board of the California Environmental Protection Agency.

~~D. Catalyst: substance enhancing a reaction between chemical compounds.~~

J. Cleaning Operations: The removal of loosely held uncured adhesives, inks, coatings, or contaminants, including, but not limited to, dirt, soil, or grease, from motor vehicles, mobile equipment, associated parts and components, substrates, parts, products, tools, machinery, equipment, or general work areas.

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

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

M. 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.

~~E. Color Match: ability of a repair coating to blend into an existing coating so color differences are not visible.~~

~~FN. Electrodeposition: applying~~ Applying an electrically-charged dip coating onto object to be coated.

~~GO. Electrostatic Spray Application: spraying an electrically-charged coating onto an object.~~ Any method of spray application of coatings where an electrostatic attraction is created between the part to be coated and the paint particles.

P. Emission Control System: Any combination of capture systems and control devices used to reduce VOC emissions from automotive coating operations.

Q. EPA: The United States Environmental Protection Agency.

~~HR. Exempt Compounds: compounds identified as exempt under the definition of volatile organic compounds 102, Subsection L. Definitions, “Exempt Compounds”.~~ As defined in District Rule

~~I. Extreme Performance Coating: coating used on surface of Group II Vehicle, Mobile Equipment, or their parts or components, intended, during use, to be exposed to any of the following during use:~~

- ~~1. Industrial grade detergents, cleaners, or abrasive scouring agents,~~
- ~~2. Unprotected shipboard conditions, or~~
- ~~3. Corrosive environmental conditions.~~

~~J. Grams of VOC per Liter of Coating Applied, Excluding Water and Exempt Compounds: weight of VOC per combined volume of VOC and coating solids shall be calculated using the following equation:~~

$$\begin{array}{l} \text{Grams of VOC per Liter of} \\ \text{Coating Applied, Excluding} \\ \text{Water and Exempt Compounds} \end{array} = \frac{W_s - W_w - W_{ec}}{V_c - V_w - V_{ec}}$$

Where:—

~~Ws = weight of VOC in grams~~

~~Ww = weight of water in grams~~

~~Wec = weight of exempt compounds in grams~~

~~Vc = volume of coating in liters~~

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~~V_w~~ = volume of water in liters

~~V_{ec}~~ = volume of exempt compounds in liters

~~K. Grams of VOC per liter of Material:~~ weight of VOC per volume of material using the following equation:

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

Where:—

~~W_s~~ = weight of VOC in grams

~~W_w~~ = weight of water in grams

~~W_{ec}~~ = weight of exempt compounds in grams

~~V_m~~ = volume of material in liters

~~L.S. Graphic Arts Operation:~~ application Application of logos, letters, numbers or graphics to a painted surface with or without use of a template.

~~M. Group I Vehicle:~~ passenger car, large/heavy duty truck cab and chassis, light and medium duty truck or van, or motorcycle.

~~N. Group II Vehicle:~~ bus.

~~OT. High-Volume, Low-Pressure (HVLV) Spray:~~ Spray equipment permanently labeled as such and which is designed and operated applying coating using a gun operating 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 and with liquid supply pressure less than 50 psig.

~~P. Large/Heavy Duty Truck:~~ truck having a manufacturer's gross vehicle weight rating of over 10,000 pounds.

~~Q. Light and Medium Duty Truck or Van:~~ truck or van having a manufacturer's gross vehicle weight rating of 10,000 pounds or less.

~~RU. Metallic/Iridescent Topcoat:~~ Coating as applied containing more than 5 g/1 (0.042 lb/gal) of visible metal or iridescent particles, where such particles are visible in the dried film.

~~V.S. Mobile Equipment:~~ Equipment drawn or capable of being driven on a roadway, including, but not limited to a: truck body, truck trailer, utility body, camper shell, mobile crane, bulldozer, construction and farm heavy equipment, concrete mixers, street cleaner, golf cart, all terrain vehicles, implements of husbandry, military tank or other tracked military vehicle and hauling equipment used inside and around airports, depots, and industrial and commercial plants.

W. Motor Vehicle: As defined in Rule 102, Definitions.

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~~T. Multistage Topcoat: topecoat system consisting of basecoat/clearcoat system (two-stage) or basecoat/midcoat/clearcoat system (three-stage).~~

X. 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.

~~UY. Precoat: coating Coating applied to bare metal primarily to deactivate metal surface for corrosion resistance and adhesion. For compliance with this Rule, any precoat shall be followed by a water-based primer coat.~~

~~VZ. Pretreatment Wash Primer Coating: coating Coating containing a minimum of 0.5% acid by weight and not more than 16 percent solids by weight, necessary to provide surface etching and is labeled and formulated for application, and applied directly to bare metal surfaces to provide corrosion resistance and adhesion.~~

~~WAA. 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. coating applied prior to application of a topecoat for the purpose of corrosion resistance and adhesion of the topecoat.~~

~~X. Primer Sealer: coating applied prior to application of a topecoat for the purpose of corrosion resistance, adhesion of the topecoat, color uniformity, and to promote the ability of an undercoat to resist penetration by the topecoat.~~

~~Y. Primer Surfacer: coating applied prior to application of a topecoat for the purpose of corrosion resistance, adhesion of the topecoat, and promoting a uniform surface by filling in surface imperfections.~~

~~Z. Reducer/Thinner: solvent used to thin coating.~~

~~AABB. Refinish: coating Coating of vehicles, their parts and components, or mobile equipment, including partial body collision repairs, for the purpose of protection or beautification and subsequent to the original coating applied at an Original Equipment Manufacturing (OEM) plant coating assembly line.~~

CC. Single-Stage Coating: Any pigmented coating, excluding primers and multi-color coatings, labeled and formulated for application without a subsequent clear coat. Single-stage coatings include single-stage metallic/iridescent coatings.

DD. Solvent: As defined in Rule 410.3, Organic Solvent Degreasing Operations.

EE. 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 APCO and provide adequate ventilation, air velocity, and safety features, as required by the Uniform Fire Code.

~~BBFF.~~ Specialty Coating: ~~coating~~ Coating necessary ~~due to~~ for unusual job performance requirements, including, but not limited to, adhesion promoters, uniform finish blenders elastomeric materials, gloss flatteners, bright metal trim repair, ~~and~~ anti-glare/safety coatings, and cut in or jaming clear coatings.

~~CCGG.~~ Spot/Panel Repair: ~~non~~ Non-assembly line process of repairing and restoring a portion of a motor vehicle, or associated parts or components of less than 1 square foot (929 square centimeters) ~~to predamaged condition.~~

HH. 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.

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

~~DD. Three Stage Coating System:~~ ~~topcoat system composed of pigmented basecoat, semitransparent midcoat, and transparent clearcoat. A three stage coating system's VOC content shall be calculated using the following formula:~~

$$\text{VOC}_{3\text{-stage}} = \frac{\text{VOC}_{bc} + \text{VOC}_{mc} + 2 \text{VOC}_{cc}}{4}$$

Where:—

~~VOC_{3-stage} = average VOC content as applied in a three stage coating system.~~

~~VOC_{bc} = VOC content as applied of any given basecoat.~~

~~VOC_{mc} = VOC content as applied of any given midcoat.~~

~~2 VOC_{cc} = two times VOC content as applied of any given clearcoat.~~

~~EEJJ.~~ Topcoat: ~~coating~~ Coating applied over a primer or an original equipment manufacturer finish for the purpose of protection or appearance.

~~FFKK.~~ Touch-Up Coating: ~~coating~~ A coating used to cover minor coating imperfections appearing after the main coating operation. ~~applied by brush, airbrush, detail HVLP spray equipment, or hand held, non-refillable aerosol cans to repair minor surface damage and imperfections, after main coating process, and not exceeding nine square feet per vehicle.~~

LL. Transfer Efficiency: The amount of coating solids adhering to the object being coated divided by the total amount of coating solids sprayed, expressed as a percentage.

MM. 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.

NN. 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.

OO. 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.

~~GG~~PP. Utility Body: special~~Special~~ purpose service compartment or unit to be bolted, welded, or affixed onto an existing cab and chassis. Such compartment may serve as storage for equipment or parts.

~~HH~~QQ. Volatile Organic Compound (VOC): any~~Any~~ compound containing at least one atom of carbon, excluding Exempt Compounds as listed in Rule 102 Definitions, except for exempt compounds (see Subsection H.H.).

RR. VOC Content:

1. VOC regulatory for Coatings: VOC in grams per liter of coating, excluding water and exempt compounds, and shall be calculated by the following equation:

$$\frac{\text{VOC regulatory content} = W_v - W_w - W_{ec}}{V_m - V_w - V_{ec}}$$

2. VOC actual for Coatings: VOC in grams per liter of material shall be calculated using the following equation:

$$\frac{\text{VOC actual content} = W_v - W_w - W_{ec}}{V_m}$$

3. VOC content for Solvents: VOC in grams per liter of material shall be calculated by the following equation:

$$\frac{\text{VOC content} = W_v - W_w - W_{ec}}{V_m}$$

Where:

VOC content = amount of volatile organic compounds in grams/liter

W_v = weight of volatiles in grams

W_w = weight of water in grams

W_{ec} = weight of exempt compounds in grams

V_m = volume of material (coating or solvent, as applicable) in liters

V_w = volume of water in liters

Vec = volume of exempt compounds in liters

III.V. Exemptions

A. Requirements of this Rule shall not apply to the following operations:

1. Graphic Arts Operations as defined in ~~Subsection H.L.~~ Section IV.S.
2. 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.
23. Coating operations employing hand-held non-refillable aerosol cans, 18 oz. or less, provided the area to be covered does not exceed nine square feet per vehicle to repair minor surface damage and imperfections.
4. Any automotive coating or associated solvent that is offered for sale, sold, or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging.
5. Any coating applied to motor vehicles or mobile equipment, or their associated parts and components, during manufacture on an assembly line.

B. Requirements of Section ~~IV.D~~ VI.D (Spray Booth) shall not apply to:

1. Touch-up coating operations as defined in Section ~~H.FF~~ IV.KK, not exceeding nine square feet per vehicle.
2. Coating of motor vehicle engine compartments, engine components, and suspension components, provided such components are replaced in the vehicle.
3. Application of primers, primer surfacers and precoats not exceeding nine square feet per vehicle, provided VOC content does not exceed 250 g/l and coatings contain no lead or chromium compounds.
4. Application of coatings to a vehicle, due to shape or size, not reasonably contained in a spray booth. To qualify for this exemption a person shall comply with the following requirements:
 - a. Submit a written request on a case by case basis to the APCO ~~Control Officer~~ describing vehicle(s) to be coated, size of spray booth, physical size of vehicle(s) (length, width, and height), number of vehicle(s) to be coated, time required to paint vehicle(s), estimated volume of coating(s) to be used, date when vehicle(s) or mobile equipment is to be coated, and VOC content of each coating used;
 - b. Such request shall be submitted ten calendar days prior to surface coating a motor vehicle or mobile equipment outside a spray booth. The APCO ~~Control Officer~~ shall provide a written determination to the requester within five

calendar days of proposed surface coating of the motor vehicle or mobile equipment; and

- c. The APCO Control Officer may grant written approval for a specified time period, not to exceed one year.
- C. Coating operations and/or facilities exempt from this Rule shall comply with all other applicable District prohibitory Rules.
- D. Provisions of ~~Subsections~~ Sections ~~IV.C.~~ VI.C. through VI.G. and Section VII. shall not apply to coating of one vehicle per twelve month period, by the registered owner of the vehicle being painted, provided the surface coating does not contain lead or chromium compounds.
- E. Section VI.F, Surface Preparation and Equipment Cleanup Requirements, 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 nonaerosol, 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 Section VII.C.4 of this Rule.

VI. Requirements

- A. VOC Content Limits: No person shall apply a coating to any motor vehicle, mobile equipment, or its associated parts and components, with a VOC regulatory content, as calculated pursuant to Section IV.RR.1, in excess of the limits expressed in Table of Standards, except as provided in Sections VI.C and VI.J.

~~Except as provided by Subsection IV.C., effective on the dates specified, no person shall refinish, or spot/panel repair any Group I vehicle, or where color match is required, any Group II vehicle, Mobile Equipment, or parts and components of such vehicles or equipment, using a coating with VOC content in excess of the following limits as applied:~~

TABLE OF STANDARDS
VOC CONTENT LIMITS FOR MOTOR VEHICLE COATINGS
Content expressed in Grams per Liter (Pounds per Gallon)
Less Water and Exempt Compounds

<u>Coating Category</u>	<u>VOC Limit</u>
<u>Adhesion Promoter</u>	<u>540 (4.5)</u>
<u>Cavity Wax</u>	<u>650 (5.4)</u>
<u>Clear Coating</u>	<u>250 (2.1)</u>
<u>Color Coating</u>	<u>420 (3.5)</u>
<u>Deadener</u>	<u>650 (5.4)</u>
<u>Gasket/Gasket Sealing Material</u>	<u>200 (1.7)</u>

<u>Lubricating Wax/Compound</u>	<u>700 (5.8)</u>
<u>Multi-Color Coating</u>	<u>680 (5.7)</u>
<u>Pretreatment Coating</u>	<u>660 (5.5)</u>
<u>Primer</u>	<u>250 (2.1)</u>
<u>Sealer</u>	<u>650 (5.4)</u>
<u>Single-Stage Coating</u>	<u>340 (2.8)</u>
<u>Specialty Coating</u>	<u>540 (4.5)</u>
<u>Temporary Protective Coating</u>	<u>60 (0.5)</u>
<u>Truck Bed Liner Coating</u>	<u>200 (1.7)</u>
<u>Trunk Interior Coating</u>	<u>650 (5.4)</u>
<u>Underbody Coating</u>	<u>650 (5.4)</u>
<u>Uniform Finish Coating</u>	<u>540 (4.5)</u>
<u>Any other coating type</u>	<u>250 (2.1)</u>

VOC Content Limits
(Grams of VOC Per Liter of Coating Less Water and
Less Exempt Compounds)

<u>Coating</u>	<u>Current</u>	<u>Effective 1/1/96</u>
Pretreatment Wash Primer	780 g/l (6.5 lb/gal)	780 g/l (6.5 lb/gal)
Primer/Primer Surface Precoat	340 (2.8)	250 (2.1)
Primer Sealer	420 (3.5)	420 (3.5)
Multistage Topcoat	600 (5.0)	540 (4.5)
Singlestage Topcoat	600 (5.0)	420 (3.5)
Metallic/Iridescent Topcoat	600 (5.0)	540 (4.5)

~~B. VOC Content Limits: Except as provided by Subsection IV.C., effective on the dates specified, where color match is not required, no person shall refinish or spot/panel repair any Group II vehicle, or Mobile Equipment, or parts and components of such vehicle or equipment using a coating with a VOC content in excess of the following limits as applied:~~

VOC Content Limits

~~(Grams of VOC Per Liter of Coating Less Water and
Less Exempt Compounds)~~

<u>Coating</u>	<u>Current</u>	<u>Effective 1/1/96</u>
Pretreatment Wash Primer	780 g/l (6.5 lb/gal)	780 g/l (6.5 lb/gal)
Primer/Primer Surfaces Primer Sealer/Precoat	340 (2.8)	250 (2.1)
Topcoat	420 (3.5)	420 (3.5)
Metallic/Iridescent Topcoat	420 (3.5)	420 (3.5)
Extreme Performance*	750 (6.2)	420 (3.5)
Camouflage Topcoat	420 (3.5)	420 (3.5)

* Any person seeking to use an extreme performance coating in any application subject to this Rule shall comply with requirements of Subsection V.A.

- B. Most Restrictive VOC Limit: ~~If anywhere on the container of any automotive coating, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a person, any representation is made that indicates that the coating meets the definition of or is recommended for use for more than one of the coating categories listed in Table of Standards, then the lowest VOC content limit shall apply.~~
- C. Alternate Emission Control: ~~In lieu of complying with VOC content limits specified in subsections IV.A. and IV.B. Table of Standards, air pollution~~ an emission control equipment system with a capture efficiency of at least 90% and a control efficiency of at least 90% may be used if it has been approved in writing by the Air Pollution Control Officer (APCO). Any approved emission control system must be maintained and used in proper working condition at all times. Use of a VOC emission control system shall not result in emissions in excess of those that would have been emitted had the operator complied with the provisions of Section V.A.
~~with a capture efficiency of at least 85% and a control efficiency of at least 90% may be used.~~
- D. Spraybooth Booth: ~~All surface coatings subject to this Rule shall be applied within a permitted, properly maintained, and operational paint spray booth located at a site with proper city or county zoning.~~
- E. Coating Application Methods Equipment Requirements: ~~No person shall coat~~ apply any coating to any Group I or Group II Vehicle, motor vehicle, or Mobile mobile

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Equipment ~~equipment~~, or associated parts and components of such vehicles and equipment, unless one of the following application methods is used:

1. Brush, dip, flow, or roll coating conducted in accordance with manufacturer's recommendations,
2. Electrostatic or electrodeposition application conducted in accordance with manufacturer's recommendations,
3. ~~High Volume Low Pressure (HVLP) spray equipment operated in accordance with manufacturer's recommendations, or~~
4. Spray gun: If a spray gun is used, the end user must demonstrate that the gun meets the HVLP definition in Section IV.T in design and use. A satisfactory demonstration must be based on the manufacturer's published technical material on the design of the gun and by a demonstration of the operation of the gun using an air pressure tip gauge from the manufacturer of the gun.
45. ~~Other~~ Any alternative coating application method which has been demonstrated to achieve at least 65% transfer efficiency or the equivalent efficiency of an HVLP and approved, in writing, by APCO., ~~for example, flow or continuous coating.~~

Section VI.E does not apply to underbody coatings, graphic arts operations, truck bed liner coatings, or any coating use of less than one (1) fluid ounce (29.6 milliliters).

F. Surface Preparation and Equipment Cleanup Requirements: No person shall conduct surface preparation or equipment cleanup for activities subject to provisions of this Rule unless the following VOC limits are met and methods are used:

1. VOC content of surface preparation solvent shall not exceed 25 g/l (0.2 lb/gal), as calculated pursuant to Section IV.RR.3, unless Section V.E applies.

~~1. Surface Cleaning: No material shall be used containing VOC in excess of 200 grams per liter (1.7 lb/gal) of material to remove dirt, oils, or other contaminants prior to application of surface coatings or adhesives.~~

~~2. Stripping: No material shall be used containing VOC in excess of 200 grams per liter of material to strip any coating.~~

~~32.~~ Cleaning of Coatings Application Equipment: Solvents used for cleaning of coatings application equipment shall comply with both limits specified below:

- a. Solvent shall have a VOC content of 950 grams or less per liter (7.9 lb/gal) of material; and
- b. Solvent shall have a VOC composite partial pressure of 35 mm Hg or less at 20/C (68/F).

- ~~4. Cleaning of Polyester Resin Application Equipment: Solvents used for cleaning polyester resin application equipment shall comply with one of the limits specified below:~~
- ~~a. Solvent shall have a VOC content of 200 grams or less per liter (1.7 lb/gal); or~~
 - ~~b. Solvent shall have a VOC content of 1100 grams or less per liter (9.2 lb/gal) and a VOC composite partial pressure of 1.0 mm Hg or less at 20°C (68°F).~~

52. Cleaning Devices and Methods Requirements: No person shall perform solvent cleaning operations unless one of the following cleaning devices or methods is used:

- a. Wipe cleaning;
- b. Spray bottles or containers with a maximum capacity of 16 fluid ounces from which solvents are applied without a propellant-induced force;
- c. Cleaning equipment having a closed solvent container during cleaning operations, except when depositing and removing objects to be cleaned, and closed during nonoperation except during maintenance and repair of the cleaning equipment itself;
- d. Remote reservoir cold cleaner operated in conformance with District Rule 410.3, Organic Solvent Degreasing Operations;
- e. System totally enclosing spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, and draining procedures;
- f. Non-atomized solvent flow method collecting cleaning solvent in a container or a collection system closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or
- g. Solvent flushing method discharging cleaning solvent into a container closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. Discharged solvent from such equipment shall be collected into containers without atomizing into open air. Solvent may be flushed through the system by air or hydraulic pressure, or by pumping.

G. Storage and Disposal: Regardless of VOC content, all automotive coating components, automotive coatings, and solvents ~~VOC-containing materials used in solvent cleaning operations, such as solvents, and cloth and paper moistened with solvents,~~ shall be stored in non-absorbent, ~~non-leaking~~ vapor-tight containers kept closed at all times except when filling or emptying.

H. Prohibition of Sale or Manufacture: No person shall manufacture, blend, repackage for sale, supply, sell, offer for sale or ~~sell~~ distribute within the District any coating with a VOC content in excess of the limits specified in Section VI.A.

Notwithstanding the provisions of this section, a person may manufacture, blend, repackage for sale, supply, sell, offer for sale, or distribute a coating with a VOC content in excess of the limits specified in section VI.A under the following circumstances and provided all of the requirements of section VII.C.6 are also met:

~~if such product is prohibited by any provisions of this Rule. This prohibition shall apply to sale of any coating to be applied at any physical location within the District.~~

1. The coating is used exclusively within an emission control system as allowed in Section VI.C, or

2. Coating is exempt under one or more of the provisions of Section V.A.

~~I. Prohibition of Specification: No person shall solicit or require for the use of, or specify the application of a or use of any coating or solvent on a ~~Group I Vehicle or Group II Vehicle~~ motor vehicle and ~~or Mobile~~ mobile ~~Equipment~~ equipment, or its associated parts and components, if such use or application results in a violation of ~~provisions of this Rule~~. This prohibition shall apply to all written or oral contracts, including but not limited to, job orders, under the terms of which any coating or solvent subject to provisions of this Rule is to be applied. This prohibition shall not apply to coatings or solvents that meet the criteria specified in Section VI.H. ~~to any vehicle, mobile equipment or part or component at any physical location within the District.~~~~

J. Sell-Through/Existing Stock of Coatings: A coating manufactured prior to amendment date of this rule, that complied with the VOC Content limit(s) in effect at that time, may be sold, supplied, or offered for sale for 12 months after rule adoption date. Such a coating may be applied at any time, both before and after adoption date, provided manufacture Date-Code and VOC Content is clearly printed on coating container.

~~J. Specialty Coatings: No person shall use any specialty coating with a VOC content in excess of 840 g/l (7.0 lbs/gal), excluding water and exempt compounds. Where use of specialty coatings, except antiglare/safety coatings, exceeds one gallon per day, use of such coatings shall not exceed 5.0 percent of all coatings applied on a daily basis.~~

VII. Administrative Requirements

A. Compliance Statement Requirement

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:

a. The VOC actual for coatings and VOC regulatory for coatings, expressed in grams per liter;

b. The weight percentage of volatiles, water, and exempt compounds;

c. The volume percentage of water and exempt compounds; and,

- d. The density of the material (in grams per liter).
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:
 - a. The VOC actual for coatings and VOC regulatory for coatings, expressed in grams per liter;
 - b. The weight percentage of volatiles, water, and exempt compounds;
 - c. The volume percentage of water and exempt compounds; and,
 - d. The density of the material (in grams per liter).
3. The manufacturer and repackager of solvents subject to this rule shall include the VOC content as supplied, calculated pursuant to section IV.RR.3, expressed in grams per liter, on product data sheets, or an equivalent medium.

AB. Labeling Requirements

1. ~~VOC Content:~~ The manufacturer and repackager of automotive coatings or automotive coating components shall include on all containers the applicable use category(ies), and the VOC actual for coatings and VOC regulatory for coatings, as supplied, expressed in grams per liter. ~~Each container (or accompanying data sheet) of any coating subject to this Rule and manufactured after May 6, 1992 shall display maximum VOC content of the coating as applied, including coating components and after any thinning as recommended by the manufacturer. VOC content shall be displayed as grams of VOC per liter less water and exempt compounds. VOC content displayed shall be determined using Subsection VI.A. test methods or calculated using product formulation data if U.S. EPA approves this as equivalent to Subsection VI.A.~~
2. ~~Thinning Recommendations:~~ The manufacturer and repackager of solvents subject to this rule shall include on all containers the VOC content for solvents, as supplied, expressed in grams per liter. ~~Each container (or accompanying data sheet) of any coating subject to this Rule and manufactured after May 6, 1992 shall display a statement of manufacturer's recommendation regarding thinning of the coating. This requirement shall not apply to thinning of coatings with water.~~

BC. Record Keeping Requirements

Any person who uses coatings or solvents, subject to this rule, shall maintain and have the following available on site at all times; ~~subject to Section IV. or Subsection V.B. shall maintain and have available during an inspection:~~

1. A current list of all VOC containing products in use that includes ~~containing~~ all any data necessary to evaluate compliance, including but not limited to, the following information, as applicable:

- a. Material name and manufacturer's identification,
 - b. Application method,
 - c. Material type (coating as listed in Table of Standards) and specific use instructions, ~~for example, "Group I single stage topcoat or precoat shall be applied to bare metal and followed with compliant primer"~~,
 - d. Specific mixing instructions,
 - e. ~~Maximum VOC~~ actual and VOC regulatory for ~~content of coatings,~~ as applied, or VOC content for solvent~~including thinning solvents, hardeners, etc., excluding water and exempt compounds, and~~
 - f. ~~Coating composition and density.~~
2. Daily coating and solvent use records, including the following information for each:
- a. Volume of each coating/solvent mix ratio,
 - b. VOC content in grams/liter (or pounds/gallon) as applied/used,
 - c. Volume of each coating/solvent in liters (or gallons) applied/used.
 - d. 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.
3. Current manufacturer specification sheets, material safety data sheets, technical data sheets, or air quality data sheets, which list the VOC actual for coatings and VOC regulatory for coatings of each ready-to-spray coating (based on the manufacturer's stated mix ratio), and VOC content of each solvent.
4. Purchase records identifying the coating type (as listed in Table of Standards), name, and volume of coatings and solvents.
5. Alternate Emissions Control Records: Any 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. "Key system operating parameters" are those parameters necessary to ensure or document compliance with Section VI.C., including, but not limited to, temperatures, pressure drops, and air flow rates.
6. Record Keeping Requirements for Prohibition of Sale: Any person claiming an exception specified in Section VI.H 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; and,
- e. The specific exception being utilized under Section VI.C.

7. Record Retention: Records required by this Rule shall be retained for a minimum of three years and made available to the APCO upon request.

~~2. Daily job and coating and solvent use records, including the following information:~~

- a. ~~Each type of vehicle, equipment, part or component coated. Vehicle types are the following:
 - 1) ~~Group I Vehicle,~~
 - 2) ~~Group I Vehicle with lacquer,~~
 - 3) ~~Group II Vehicle and Mobile Equipment with color match, or~~
 - 4) ~~Group II Vehicle and Mobile Equipment with no color match;~~~~
- b. ~~Specific coatings used on each job, e.g. pretreatment wash primer, precoat, topecoat;~~
- c. ~~Volume in liters (or gallons) of each component and mix ratio;~~
- d. ~~VOC content in grams/liter (or pounds/gallon) as applied/used;~~
- e. ~~Specific solvents used;~~
- f. ~~Volume of each solvent used in liters (or gallons); and~~
- g. ~~Primers and primer surfacers mixed for use on multiple vehicles may be recorded as single line item including all information required in Subsections V.2.c. through V.2.f., above.~~

~~3. Capture and control equipment operating records, if applicable, including:~~

- a. ~~Periods of operation corresponding to use records kept for Subsection V.B.2. showing control equipment was used as necessary,~~

- ~~b. Key system operating parameters showing operation as required to comply with this Rule and as intended by manufacturer,~~
- ~~c. Date performed, and description of all control system maintenance.~~
- ~~4. Purchase records showing date, type, and amount of VOC containing material. All records shall be maintained for three years and made available for inspection by the Control Officer upon request.~~

VIII. 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.

~~E.A. Measurement of Acid Content: –~~Measure of Acid-acid content of Pre-Treatment Wash Primers shall be conducted and reported in accordance with ~~determined by~~ using ASTM D1613-85-03 “Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates used-Used in Paint, Varnish, Lacquer, and Related Products” (October 2003).

~~A.B. Analysis of Samples: –~~ Samples of VOC as specified in this Rule shall be analyzed by ~~U.S. EPA Method 24~~ as set forth in Appendix A of Title 40 of the Code of Federal Regulations (40 CFR) Part 60, “Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings”, and ~~analysis-~~ Analysis of halogenated exempt compounds shall be conducted using CARB Method 432-422, “Determination of Volatile Organic Compounds in Emissions from Stationary Sources” (September 12, 1990), or ASTM D4457-85 and be consistent with provisions set forth in the Federal Register (FR, Vol. 56, No. 52, March 18, 1991).

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

D. Control and Capture Efficiency: Capture and control efficiency of emission control systems shall be determined as specified in 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.

~~B.E. Determination of Emissions: --~~ Emissions of VOC shall be measured by ~~U.S. EPA Method 25, 25A, or 25B, as applicable-~~ and analysis of halogenated exempt compounds shall be conducted using CARB Method 432, “Determination of Dichloromethane and 1,1,1- Trichloroethane in Paints and Coatings” (September 12, 1998).

~~C. Determination of Capture Efficiency –~~ Where add-on control equipment is utilized, capture efficiency shall be determined in accordance with 40 CFR 52.741.

F. 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 422, CARB Method 432, or South Coast AQMD Method 303-91, “Determination of Exempt Compounds” (February 1993).

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

~~DH.~~ Quantification of Metallic Content/Iridescent Topcoat: – Quantification of coating as The a metallic/iridescent topcoat content of a coating shall be determined by South Coast Air Quality Management District “Test Method ~~311~~318-9195”, “Determination of Weight Percent Elemental Metal in Coatings by X-ray” (July 1996).~~Analysis of percent Metals in Metallic Coatings by Spectrographic Method”.~~

~~FI.~~ Demonstration of Transfer Efficiency: –Spray equipment transferTransfer efficiency shall be ~~demonstrated~~determined by using South Coast Air Quality Management District Method “Spray Equipment Transfer Efficiency Test Procedure for Equipment User”, (May 24, 1989).

~~GJ.~~ Determination of VOC Composite Partial Pressures: –VOC composite partial pressures shall be determined using either manufacturer's information regarding formulation or using ASTM Methods ~~E168-92, E169-93~~04, Standard Practices for General Techniques of Ultraviolet-Visible Quantitative Analysis or ~~E260-91~~96, Standard Practice for Packed Column Gas Chromatography for determination of mole fractions and then summing products of each VOC component's vapor pressure and its mole fraction. For materials containing no non-VOC components, VOC composite partial pressure can be measured directly by ASTM Method ~~D2879-86~~10 Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope.

~~HK.~~ Determination of VOC Emissions ~~From~~from Spray Gun Cleaning Systems: – VOC emissions shall be determined using South ~~east~~Coast Air Quality Management ~~district~~AQMD “General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems” (October 3, 1989).

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APPENDIX C

AMENDED RULE 410.4A

MOTOR VEHICLE AND MOBILE EQUIPMENT

REFINISHING OPERATIONS

RESPONSE TO COMMENTS

410.4A Final Staff Report - Response to Comments

On November 6, 2013 the District held a public rule development workshop at the Mojave Veteran's Building in Mojave, CA to present proposed revisions of Rule 410.4A, Motor Vehicle and Mobile Equipment Refinishing Operations. The District submitted copies of the proposed revision to the Air Resources Board (ARB) and the Region IX office of the U.S. Environmental Protection Agency (EPA) in October, 2013 for an initial 30-day review.

Upon completion of review EPA offered comments and suggested changes to District staff regarding the proposed revision of Rule 410.4A. ARB did not provide comments or suggested changes but responded to the District that they would wait to review the rule upon submission of the final draft.

Industry representatives present at the 11/6/2013 workshop asked various questions regarding the proposed amendments and submitted written comments within 30-days following the workshop. Appendix C addresses comments, questions, and suggested changes regarding the proposed revision of Rule 410.4A.

Appendix C is separated into two sections based on EPA comments and suggested changes and industry/public comments and questions.

I. EPA COMMENTS

The following changes were made to the 8/1/2013 proposed revision of Rule 410.4A in response to EPA comments.

Section III, Definitions

1. EPA commented: *P,Q,R,S, should be reorganized in alphabetical order*

District corrected this issue.

2. EPA commented: *OO: The limit of nine square feet is an addition to the SJVAPCD's definition. This seems excessive for touch-up.*

District revised to match Rules 410.4 and 410.8

Section V, Requirements

1. EPA commented: *C. Consider raising the capture efficiency requirement to 90%. SJVAPCD Rule 4602 has an overall capture and control efficiency of 90%.*

District revised per suggestion.

410.4A Final Staff Report - Response to Comments

2. EPA commented: *J. How will this prohibition of possession be enforced?*

District: This provision has been removed and sell through provision added (see Section VI.J of Appendix A)

Section VII, Administrative Requirements

1. EPA commented: *C-4: Although this rule requires the use of compliant coatings and solvents only, consider requiring daily records similar to that in SJVAPCD's Rule 4602.*

District revised this subsection to match Rule 410.4 recordkeeping requirements in order to maintain rule consistency.

Section VIII, Test Methods

In order to maintain District Rule consistency, Section VIII, Test Methods has been revised to closely match Section VII, Test Methods of Rule 410.4.

1. EPA commented: *B. Include the title and date (September 12, 1989) for CARB's Method 432 in this first instance. The title in subsection H may be eliminated. Include the title for ASTM D4457-85.*

District revised this section to match Rule 410.4 Analysis of Samples, Section VII.B.

2. EPA commented: *F. Add the SCAQMD test method date: October 3, 1989.*

District revised this section to match Rule 410.4.

3. EPA commented: *G. Later versions of ASTM D2879 have been approved by EPA. If appropriate, use -96, -97 or -10.*

District revised per suggestion.

4. EPA commented: *H. See comment in subsection B. Also the EPA-approved CARB Method 422 is dated Sept. 12, 1990 and the EPA-approved SCAQMD Method 303-91 is dated August 1996.*

District revised per suggestion.

II. INDUSTRY/PUBLIC COMMENTS

The following comments were made by industry representatives at, and following the 11/6/2013 workshop in Mojave, CA.

American Coatings Association

American Coatings Association (ACA) submitted the following written comments regarding Rule 410.4A on 12/6/2013.

Section II, Applicability

1. ACA commented: *Effective dates: ACA suggests that a clearly defined regulatory effective date be added to the rule. As drafted, the proposed regulations do not have an effective date. Other California Air Districts have listed an effective date per Coating Category in the VOC Content Limits For Motor Vehicle Coatings table. Additionally, an effective date can be listed by a separate statement. ACA suggest a one-year transition period, prior to the new VOC limits taking effect.*

District added the following language to Section II, Applicability “provisions of this Rule are enforceable upon amendment date” and a 12-month sell-through provision (see Section VI.J).

Section IV, Definitions

1. ACA commented: *The following definitions are not mentioned in the proposed regulations and should be removed from the definition section:*
 - i. Catalyst
 - ii. Color Match
 - iii. Stationary Coating Operation.

District revised per suggestion.

2. ACA commented: *The definition of specialty coating should specifically include “cut in” or “jamming clear” coatings.*

District revised per suggestion.

3. ACA commented: *The definition of Spot/Panel is redundant. To clarify this definition, the language “to a predamaged condition” should be removed.*

District revised per suggestion.

410.4A Final Staff Report - Response to Comments

4. ACA commented: *The definition of Reducer/Thinner should be removed. The definition of Solvent should be revised to read as follows: "A VOC-containing fluid used to perform cleaning operations or to reduce the viscosity of a coating."*

District removed Reducer/Thinner and revised Solvent definition to match rules 410.4 and 410.8.

5. ACA commented: *The following language should be removed from the definition of Precoat: "For compliance with this rule, any precoat shall be followed by a water-based primer coat." Compliance with this proposed rule should be based solely on VOC content stated in the Volatile Organic Compound (VOC) Content Limits for Motor Vehicle Coating Table.*

District revised per suggestion.

Section V, Exemptions

1. ACA commented: *Consistent with the CARB SCM, ACA suggests including an exemption for "assembly lines, as follows: "Any coating applied to motor vehicles or mobile equipment, or their associated parts and components, during manufacture on an assembly line."*

District added exemption (see Section V.A.5. of Appendix A).

Section VI, Requirements

1. ACA commented: *Sell Through Provision: ACA respectfully requests that a clearly expressed sell through provision be added to the rule. The addition of a sell through would allow businesses to sell or use products manufactured before the effective date for a specified period of time. ACA suggests a sell through period of one year after the effective date.*

District revised per suggestion (see Section VI.J).

2. ACA commented: *VOC Limit for Specialty Coatings: The proposed regulations contain VOC limits of 540 g/l for two types of specialty coatings: 1) Adhesion Promoters, and 2) Uniform Finish Coatings. ACA urges the Eastern Kern APCD to extend this VOC limit of 540 g/l to all specialty coatings, and to remove the specific specialty coatings categories for Adhesion Promoters and Uniform Finish Coatings.*

District revised per suggestion.

3. ACA commented: *Section VI: Requirements E(5) reads as follows: "Any alternative coating application method which has been demonstrated to achieve at least 65% transfer efficiency or the equivalent efficiency of an HVLP and approved, in writing, by the EPA and APCO." Under the National Auto Refinish Rules, there is no requirement for approval by EPA, and multiple agency reviews will put an unnecessary burden on manufacturers. ACA urges Eastern Kern revise Section IV: Requirements E(5) by replacing "EPA" with "the California Air Resources Board (CARB)" or another local or state Air Quality Authority.*

District removed "EPA". APCO written approval remains, APCO will make determination based on information provided by ARB, EPA, or other air districts testing data and approvals.

Section VII, Administrative Requirements

1. ACA commented: *Administrative Requirements B(1) reads as follows: "Coatings: The manufacturer and repackager of automotive coatings or automotive coating components shall include on all containers the applicable use category(ies), and the VOC actual for coatings and VOC regulatory for coatings, as supplied, expressed in grams per liter." Automotive coatings components do not fit into categories and VOC content is not relevant for compliance. The VOC content of the ready to spray coating is relevant for compliance. Therefore, ACA suggests that section VII(B)(1) be revised to read as follows: "Coatings: The manufacturer and repackager of automotive coatings shall include on all containers the applicable use category(ies), and the VOC actual as supplied and VOC regulatory as supplied, expressed in grams per liter."*

District removed "Coatings" and "Solvents" were removed from Subsections VII.B.1. and VII.B.2. Language from both Subsections are word for word from ARB's SCM.

2. ACA commented: *Section VII: Administrative Requirements C(6) reads as follows: "Record Keeping Requirements for Prohibition of Sale: Any person claiming an exception specified in Section VI.H 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 exception being utilized under Section VI.C.*

410.4A Final Staff Report - Response to Comments

Requiring the manufacturer to keep records maintaining the retail tax license number and valid district permit number is an unnecessary burden for both manufacturers and distributors. ACA recommends the removal of the retail tax license number and valid district permit number from section C(6)(d) and section (e) in its entirety – “the specific exception being utilized under Section VI.C.”

District removed “Coatings” and “Solvents” were removed from Subsections VII.B.1. and VII.B.2. Language from both Subsections are word for word from ARB’s SCM.

District: Requested change sounds reasonable, revised per suggestion.

3. ACA commented: *To give facilities adequate time to gather requested information, ACA recommends the following change to the rule language: “Records required by this Rule shall be retained for a minimum of three years and made available to the APCO within 90 days after request.”*

District did not make change; Facility permit conditions usually require records to be held on premises and made available to the District upon Inspector/APCO request.

PPG

PPG submitted the following written comments regarding Rule 410.4A on 11/19/2013.

Section II, Applicability

1. PPG commented: *am concerned that I did not see a date of implementation for this revision. While products are available & accepted in the 13 air districts that have already implemented a CARB SCM type rule, the technology required will take time for painters in Eastern Kern APCD to learn how to correctly apply. Hands-on training is strongly recommended for the waterborne basecoats considered critical to compliant technologies as these products handle differently than solvent borne. Also there will be time needed to flush the old technology higher VOC products out of the system. Coatings are expensive; shops will not want to waste even partial containers. Disposal of serviceable products would only place an extra unneeded burden on waste facilities. In the other districts that have updated their regulations, typically up to 12 months have been allowed to transition.*

District added the following language to Section II, Applicability “provisions of this Rule are enforceable upon amendment date” and a 12-month sell-through provision (see Section VI.J).

Section VI, Requirements

1. PPG commented: *Solvents used for spray gun cleaners set at 25 g/L maximum will force formulators to use a limited number of exempt compounds which may not offer the best qualities desired in a gun cleaner. Obviously there are high exempt content products available, but there could be better options. I would suggest the approach used by Bay Area AQMD which does not set a limit for this category. As these products are required to be used in an enclosed device, they will be contained for eventual recycling. Use of exempt formulations will almost certainly require costlier formulations that will not deliver the efficient cleaning properties offered by the full selection of VOC containing solvents. Used in a proper device there will be limited releases to the environment and with recycling & reuse of solvents derived no need to set a VOC limit for this category.*

District: limit for surface preparation will remain at 25 g/l and limits for Application Equipment Cleaning will remain at 950 grams or less per liter (7.9 lb/gal) of material with a VOC composite partial pressure of 35 mm Hg or less at 20/C (68/F). (See Section VI.F. of Appendix A)

Edwards Air Force Base

Edwards Air force Base (Edwards) submitted the following written comments regarding Rule 410.4A on 12/6/2013.

We request EKAPCD revise the sell-through date to 12 months after effective date of the rule.

District: Sell-through provision was added (Section VI.J.).

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