

BOARD MEETING DATE: February 7, 2020

AGENDA NO. 25

**PROPOSAL:** Determine That Proposed Amendments to Rule 1107 – Coating of Metal Parts and Products, are Exempt from CEQA and Amend Rule 1107

**SYNOPSIS:** Rule 1107 was adopted in 1979 and last amended in 2006 and establishes VOC limits for most metal coatings operations. Proposed Amended Rule 1107 will be amended to be consistent with Reasonably Available Control Technology requirements as recommended in U.S. EPA's Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings (September 2008). Proposed Amended Rule 1107 revises exemptions, adds work practices for coating-related activities, updates test methods, removes obsolete provisions, and provides additional clarifications.

**COMMITTEE:** Stationary Source, January 24, 2020, Reviewed

**RECOMMENDED ACTIONS:**

Adopt the attached Resolution:

1. Determining that the proposed amendments to Rule 1107 – Coating of Metal Parts and Products, are exempt from the requirements of the California Environmental Quality Act; and
2. Amending Rule 1107 – Coating of Metal Parts and Products.

Wayne Natri  
Executive Officer

PMF:SN:MM

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**Background**

Rule 1107 – Coating of Metal Parts and Products, was adopted in June 1979 to control volatile organic compound (VOC) emissions from metal coating operations. The rule has been amended 17 times, with the last amendment in January 2006. Rule 1107 establishes VOC limits for 22 categories of coatings classified as air-dried (cured below 194 degrees F) or baked (cured at or above 194 degrees F).

Non-attainment areas, such as the South Coast AQMD, are required to implement recommendations in applicable Control Techniques Guidelines (CTG). U.S. EPA issued a CTG for Miscellaneous Metal and Plastic Parts Coatings in September 2008. CARB also requested that the limits for baked metallic and baked camouflage coatings be reduced to be consistent with other air districts rules.

Proposed Amended Rule (PAR) 1107 addresses the Reasonably Available Control Technology (RACT) deficiencies raised by U.S. EPA and the changes to VOC limits requested by CARB.

### **Public Process**

A public workshop was held on December 4, 2019.

### **Proposed Amendments**

PAR 1107 will remove the exemptions for high-performance architectural, vacuum-metalizing, and pretreatment coatings. The high-volume exemption for electrocoatings will also be removed. The VOC limits for baked metallic and baked camouflage coatings will be reduced from 420 grams/liter (g/L) to 360 g/L as requested by CARB. The coating technology in these coating categories has been in use for two decades and these limits have been in place in multiple air districts during that time. Work practices will be added to require that VOC-containing materials and VOC-laden application tools and waste be stored in closed containers. A test method has been added to reflect changes to U.S. EPA's technical guidance document for capture efficiency. These amendments will make Rule 1107 consistent with U.S. EPA's CTGs and address CARB's request.

Additionally, PAR 1107 includes a definition for Energy Curable Coatings and provides manufacturers a test method to measure VOC content. Test method ASTM D7767-11 (2018) provides manufacturers a test method to more accurately determine VOC content for recordkeeping and reporting. PAR 1107 also updates test methods, exempts high-viscosity coatings from transfer efficiency requirements, removes obsolete provisions, and adds clarifications.

### **Emission Reductions**

PAR 1107 is not expected to result in direct emission reductions and will not increase costs because manufacturers are already achieving the VOC emission limits.

### **Key Issues**

Staff is not aware of any key issues.

## **California Environmental Quality Act**

Pursuant to the California Environmental Quality Act (CEQA), the South Coast AQMD, as Lead Agency, has prepared a Notice of Exemption pursuant to CEQA Guidelines Section 15062 – Notice of Exemption for the proposed project. Proposed Amended Rule 1107 has been reviewed pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. Since Proposed Amended Rule 1107 does not contain any project elements requiring physical modifications that would cause an adverse effect on the environment, it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Therefore, the project is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. If the project is approved, the Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino counties.

## **Socioeconomic Analysis**

The amendments proposed are not expected to impose any additional costs to facilities or result in other socioeconomic impacts. The proposed amendments do not significantly affect air quality or emissions limitations since facilities are already using compliant coatings, and therefore, no socioeconomic analysis is required under California Health and Safety Code Sections 40440.8 and 40728.5.

## **AQMP and Legal Mandates**

Proposed Amended Rule 1107 partially implements 2016 AQMP Control Measure CTS-01: Further Emission Reductions from Coatings, Solvents, Adhesives, and Sealants. The amendments address RACT deficiencies raised by U.S. EPA and changes to VOC limits requested by CARB to be consistent with other air districts rules.

## **Resource Impacts**

Existing staff resources are adequate to implement the proposed amendments.

## **Attachments**

- A. Summary of Proposal
- B. Key Issues and Responses
- C. Rule Development Process
- D. Key Contacts List
- E. Resolution
- F. Proposed Amended Rule 1107
- G. Final Staff Report
- H. Notice of Exemption
- I. Board Meeting Presentation

**ATTACHMENT A**  
**SUMMARY OF PROPOSAL**

Proposed Amended Rule 1107 – Coating of Metal Parts and Products

*Definitions*

- Adds Energy Curable Coatings and provides manufacturers a test method (ASTM D7767-11 (2018)) to measure volatile organic compound (VOC) content

*Requirements*

- Reduces VOC limits for baked metallic and baked camouflage coatings from 420 grams/liter (g/L) to 360 g/L
- Includes provision for VOC-containing materials and VOC-laden application tools and waste to be stored and disposed in closed containers

*Methods of Analysis*

- Adds test method for capture efficiency to reflect changes to U.S. EPA's technical guidance document
- Adds titles of test methods for clarity

*Exemptions*

- Removes high-performance architectural, vacuum-metalizing, and pretreatment coating exemptions for facilities that emit less than 10 tons per year of VOC
- Removes high volume exemption for electrocoatings
- Includes exemption from transfer efficiency for high-viscosity coatings

## **ATTACHMENT B**

### **KEY ISSUES AND RESPONSES**

Proposed Amended Rules 1107 – Coating of Metal Parts and Products

Staff is not aware of any remaining key issues.

## ATTACHMENT C

### RULE DEVELOPMENT PROCESS

Proposed Amended Rules 1107 – Coating of Metal Parts and Products



**Three (3) months spent in rule development.**

**One (1) Public Workshop.**

**One (1) Stationary Source Committee Meeting.**

## **ATTACHMENT D**

### **KEY CONTACTS LIST**

Proposed Amended Rule 1107 – Coating of Metal Parts and Products

- \* American Coatings Association
- \* Boral Industries
- \* California Air Resources Board
- \* Cardinal Paint
- \* Clow Valve
- \* Embee Processing
- \* ITW Polymer Sealants
- \* Metropolitan Water District
- \* RadTech International
- \* SA Recycling
- \* Sherwin Williams
- \* Southern California Edison
- \* U.S. Environmental Protection Agency

## **ATTACHMENT E**

### **RESOLUTION NO. 20-\_\_\_\_**

**A Resolution of the Governing Board of the South Coast Air Quality Management District (South Coast AQMD) determining that Proposed Amended Rule 1107 – Coating of Metal Parts and Products, is exempt from the requirements of the California Environmental Quality Act (CEQA).**

**A Resolution of the South Coast AQMD Governing Board amending Rule 1107 – Coating of Metal Parts and Products**

**WHEREAS**, the South Coast AQMD Governing Board finds and determines that the Proposed Amended Rule 1107 is considered a “project” pursuant to CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and

**WHEREAS**, the South Coast AQMD has had its regulatory program certified pursuant to Public Resources Code Section 21080.5 and CEQA Guidelines Section 15251(l) and has conducted a CEQA review pursuant to such program (South Coast AQMD Rule 110); and

**WHEREAS**, the South Coast AQMD Governing Board finds and determines that after conducting a review of the proposed project in accordance with CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA, and CEQA Guidelines Section 15061 - Review for Exemption, procedures for determining if a project is exempt from CEQA, that Proposed Amended Rule 1107 is exempt from CEQA; and

**WHEREAS**, the South Coast AQMD Governing Board finds and determines that, because the project would not cause any physical changes that would affect any environment topic area, it can be seen with certainty that there is no possibility that the Proposed Amended Rule 1107 may have any significant effects on the environment, and is therefore exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption; and

**WHEREAS**, the South Coast AQMD staff has prepared a Notice of Exemption for Proposed Amended Rule 1107 that is completed in compliance with CEQA Guidelines Section 15062 – Notice of Exemption; and

**WHEREAS**, Proposed Amended Rule 1107 and supporting documentation, including but not limited to, the Notice of Exemption and the Final Staff Report, were presented to the South Coast AQMD Governing Board and the South Coast AQMD Governing Board has reviewed and considered this information, as well as has taken and considered staff testimony and public comment prior to approving the project; and



**WHEREAS**, Proposed Amended Rule 1107 will be submitted for inclusion into the State Implementation Plan; and

**WHEREAS**, the South Coast AQMD staff conducted a Public Workshop regarding Proposed Amended Rule 1107 on December 4, 2019; and

**WHEREAS**, Health and Safety Code Section 40727 requires that prior to adopting, amending or repealing a rule or regulation, the South Coast AQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the Final Staff Report; and

**WHEREAS**, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1107 is needed to revise exemptions and amend work practices to be consistent with Reasonably Available Control Technology requirements as recommended in United States Environmental Protection Agency's *Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings* (September 2008); and

**WHEREAS**, the South Coast AQMD Governing Board obtains its authority to adopt, amend or repeal rules and regulations from Sections 39002, 40000, 40001, 40440, 40702, 40725 through 40728, and 41508 of the Health and Safety Code; and

**WHEREAS**, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1107 is written or displayed so that the meaning can be easily understood by the persons directly affected by it; and

**WHEREAS**, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1107 is in harmony with and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations; and

**WHEREAS**, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1107 will not impose the same requirements as any existing state or federal regulations. The amendments are necessary and proper to execute the powers and duties granted to, and imposed upon, South Coast AQMD; and

**WHEREAS**, the South Coast AQMD Governing Board, in amending Rule 1107, references the following statutes which the South Coast AQMD hereby implements, interprets, or makes specific: Health and Safety Code Sections 39002, 40001, 40702, 40440(a), 40725 through 40728.5; and

**WHEREAS**, California Health and Safety Code Section 40727.2 requires the South Coast AQMD to prepare a written analysis of existing federal air pollution control requirements applicable to the same source type being regulated whenever it adopts, or amends a rule, and the South Coast AQMD's comparative analysis of Proposed Amended Rule 1107 is included in the staff report; and

**WHEREAS**, the South Coast AQMD Governing Board finds that there is a problem that Proposed Amended Rule 1107 will alleviate and that the proposed amended

rule will promote the attainment or maintenance of state or federal ambient air quality standards; and

**WHEREAS**, the South Coast AQMD Governing Board finds that Proposed Amended Rule 1107 does not significantly affect air quality or emissions limitations, and therefore a socioeconomic impact assessment, pursuant to Health and Safety Code Sections 40440.8, 40728.5, or 40920.6 is not required; and

**WHEREAS**, the South Coast AQMD specifies the Planning and Rules Manager of Rule 1107 as the custodian of the documents or other materials which constitute the record of proceedings upon which the adoption of these proposed amendments is based, which are located at the South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, California; and

**WHEREAS**, a public hearing has been properly noticed in accordance with the provisions of Health and Safety Code Section 40725; and

**WHEREAS**, the South Coast AQMD Governing Board has held a public hearing in accordance with all provisions of law; and

**NOW, THEREFORE, BE IT RESOLVED**, that the South Coast AQMD Governing Board does hereby determine, pursuant to the authority granted by law, that Proposed Amended Rule 1107 is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. This information was presented to the South Coast AQMD Governing Board, whose members reviewed, considered and approved the information therein prior to acting on Proposed Amended Rule 1107; and

**BE IT FURTHER RESOLVED**, that the South Coast AQMD Governing Board does hereby adopt, pursuant to the authority granted by law, Proposed Amended Rule 1107 as set forth in the attached, and incorporated herein by reference.

DATE: \_\_\_\_\_

\_\_\_\_\_  
CLERK OF THE BOARDS

## ATTACHMENT F

(Adopted June 1, 1979)(Amended December 4, 1981)(Amended May 7, 1982)  
(Amended December 2, 1983)(Amended March 2, 1984)(Amended January 9, 1987)  
(Amended June 5, 1987)(Amended May 5, 1989)(Amended March 2, 1990)  
(Amended November 2, 1990)(Amended August 2, 1991)(Amended May 12, 1995)  
(Amended March 8, 1996)(Amended August 14, 1998)  
(Amended November 17, 2000)(Amended November 9, 2001)  
(Amended November 4, 2005)(Amended January 6, 2006)  
(PAR 1107 February 2020)

### **PROPOSED AMENDED RULE 1107. COATING OF METAL PARTS AND PRODUCTS**

[Rule Index to be included after adoption]

(a) Purpose and Applicability

The purpose of Rule 1107 is to reduce volatile organic compound (VOC) emissions from the coating of metal parts and products. This rule applies to all metal coatings operations except those performed on aerospace assembly, magnet wire, marine craft, motor vehicle, metal container, and coil coating operations. This rule does not apply to the coating of architectural components coated at the structure site or at a temporary unimproved location designated exclusively for the coating of structural components.

(b) Definitions

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

- (1) AEROSOL COATING PRODUCT is 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.
- (2) AIR-DRIED COATING is a coating that is cured at a temperature below 90°C (194°F).
- (3) ALTERNATIVE EMISSION CONTROL PLAN is a plan that allows a source to demonstrate an alternative method of rule compliance, pursuant to Rule 108 – Alternative Emission Control Plans.
- (4) BAKED COATING is a coating that is cured at a temperature at or above 90°C (194°F).
- (5) CAMOUFLAGE COATING is a coating used, principally by the military, to conceal equipment from detection.

- (6) CAPTURE EFFICIENCY is the percentage of ~~volatile organic compounds~~ VOCs used, emitted, evolved, or generated by the operation, that are collected and directed to an air pollution control device.
- (7) CATALYST is a substance that alters the rate of a chemical reaction without participating in that reaction or changing during the course of that reaction.
- (8) COATING is a material which is applied to a surface and which forms a continuous film in order to beautify and/or protect such surface.
- (9) CONTRACT PAINTER is a non-manufacturer of metal parts and products who applies coatings to such products at his facility exclusively under contract with one or more parties that operate under separate ownership and control.
- (10) DIP COATING is a method of applying coatings to a substrate by submersion into and removal from a coating bath.
- (11) ELECTRIC-INSULATING VARNISH is a non-convertible-type coating applied to electric motors, components of electric motors, or power transformers, to provide electrical, mechanical, and environmental protection or resistance.
- (12) ELECTRIC-INSULATING AND THERMAL-CONDUCTING COATING is a coating that displays an electrical insulation of at least 1000 volts DC per mil on a flat test plate and an average thermal conductivity of at least 0.27 BTU per hour-foot-degree-Fahrenheit.
- (13) ELECTROCOATING is a process that uses coating concentrates or pastes added to a water bath. The coating is applied by using an electrical current in either an anodic or cathodic process.
- (14) ELECTROSTATIC APPLICATION is a method of applying coating particles or coating droplets to a grounded substrate by electrically charging them.
- (15) ENERGY CURABLE COATINGS are single-component reactive products that cure upon exposure to visible-light, ultra-violet light, or an electron beam. The VOC content of thin film energy curable coatings may be measured by manufacturers using ASTM D7767-11 (2018) – Standard Test Method to Measure Volatiles from Radiation Curable Acrylate Monomers, Oligomers, and Blends and Thin Coatings Made from Them.
- (~~15~~16) ESSENTIAL PUBLIC SERVICE COATING is a protective (functional) coating applied to components of power, water, and natural gas production, transmission, or distribution systems during repair and maintenance procedures.
- (~~16~~17) ETCHING FILLER is a coating that contains less than 23 percent solids by weight and at least 1/2-percent acid by weight, and is used instead of applying a pretreatment coating followed by a primer.

(1718) EXEMPT COMPOUNDS (see Rule 102—Definition of Terms).

(1819) EXTREME HIGH-GLOSS COATING is a coating which, when tested by the American Society for Testing Material ASTM—Test Method D-523-14 (2018) — Standard Test Method for Specular Gloss ~~adopted in 1980~~, shows a reflectance of 75 or more on a 60° meter.

(1920) EXTREME-PERFORMANCE COATING is a coating used on a metal surface where the coated surface is, in its intended use, subject to the following:

- (A) Chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes, chemical mixtures, or solution; or
- (B) Repeated exposure to temperatures in excess of 250°F; or
- (C) Repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleansers, or scouring agents.

(2021) FLOW COAT is a non-atomized technique of applying coatings to a substrate with a fluid nozzle in a fan pattern with no air supplied to the nozzle.

(2122) GRAMS OF VOC PER LITER OF COATING LESS WATER AND LESS EXEMPT COMPOUNDS is the weight of VOC per combined volume of VOC and coating solids and can be calculated by the following equation:

Grams of VOC per Liter of Coating Less Water and Less Exempt Compounds

$$= \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

Where:  $W_s$  = weight of volatile compounds in grams  
 $W_w$  = weight of water in grams  
 $W_{es}$  = weight of exempt compounds in grams  
 $V_m$  = volume of material in liters  
 $V_w$  = volume of water in liters  
 $V_{es}$  = volume of exempt compounds in liters

(2223) GRAMS OF VOC PER LITER OF MATERIAL is the weight of VOC per volume of material and can be calculated by the following equation:

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

Where:  $W_s$  = weight of volatile compounds in grams  
 $W_w$  = weight of water in grams  
 $W_{es}$  = weight of exempt compounds in grams

$V_m$  = volume of material in liters

- (2324) HAND APPLICATION METHODS is the application of coatings by manually held non-mechanically operated equipment. Such equipment includes paintbrushes, hand rollers, caulking guns, trowels, spatulas, syringe daubers, rags, and sponges.
- (2425) HARDENER is a substance or mixture of substances that controls the viscosity of the reactants and products of a chemical reaction; while participating in chemical reaction and becoming part of the product or products of chemical reaction.
- (2526) HEAT-RESISTANT COATING is a coating that must withstand a temperature of at least 400°F during normal use.
- (2627) HIGH-PERFORMANCE ARCHITECTURAL COATING is a coating used to protect architectural subsections and which meets the requirements of the Architectural Aluminum Manufacturer Association's publication numbers AAMA 605-2-19802604-05 – Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels or AAMA 2605-05 – Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
- (2728) HIGH-TEMPERATURE COATING is a coating that is certified to withstand a temperature of 1000°F for 24 hours.
- (2829) HIGH-VOLUME, LOW-PRESSURE (HVLP) SPRAY is a coating application system which is designed to be operated and which is operated between 0.1 and 10 pounds per square inch gauge (psig) air pressure, measured dynamically at the center of the air cap and the air horns.
- (2930) INK is a fluid that contains dyes and/or colorants and is used to make markings but not to protect surfaces.
- (3031) MAGNETIC DATA STORAGE DISK COATING is a coating used on a metal disk which stores data magnetically.
- (3132) METAL PARTICLES are pieces of an elemental pure metal or a combination of elemental metals.
- (3233) METAL PARTS AND PRODUCTS are any components or complete units fabricated from metal, except those subject to the coating provisions of other source specific rules of Regulation XI – Source Specific Standards.
- (3334) METALLIC COATING is a coating which contains more than 5 grams of metal particles per liter of coating, as applied.
- (3435) MIL is 0.001 inch.

- (3536) MILITARY SPECIFICATION COATING is a coating applied to metal parts and products and which has a paint formulation approved by a United States Military Agency for use on military equipment.
- (3637) MOLD-SEAL COATING is the initial coating applied to a new mold or repaired mold to provide a smooth surface which, when coated with a mold release coating, prevents products from sticking to the mold.
- (3738) MOTOR VEHICLE is a passenger car, light-duty truck, medium-duty vehicle, or heavy-duty vehicle as defined in ~~Section 1902, Title 13, of the California~~ Administrative Code, Section 1902.
- (3839) MULTI-COMPONENT COATING is a coating requiring the addition of a separate reactive resin, commonly known as a catalyst or hardener, before application to form an acceptable dry film.
- (3940) ONE-COMPONENT COATING is a coating that is ready for application as it comes out of its container to form an acceptable dry film. A thinner, necessary to reduce the viscosity, is not considered a component.
- (4041) OPTICAL ANTI-REFLECTION COATING is a coating with a low reflectance in the infrared and visible wavelength range and is used for anti-reflection on or near optical and laser hardware.
- (4142) PAN-BACKING COATING is a coating applied to the surface of pots, pans, or other cooking implements that are exposed directly to a flame or other heating elements.
- (4243) PHOTORESIST COATING is a coating applied directly to a metal substrate to protect surface areas when chemical milling, etching, or other chemical surface operations are performed on the substrate.
- (4344) PHOTORESIST OPERATION is a process for the application and development of photoresist coating on a metal substrate, including preparation (except primary cleaning), soft bake, development, hard bake, and stripping, and can be generally subdivided as follows:
- (A) NEGATIVE PHOTORESIST OPERATION is a process where the photoresist hardens when exposed to light and the unhardened photoresist is stripped, exposing the metal surface for etching.
  - (B) POSITIVE PHOTORESIST OPERATION is a process where the photoresist softens when exposed to light and the softened photoresist is stripped, exposing the metal surface for etching.

- (4445) PREFABRICATED ARCHITECTURAL COMPONENT COATINGS are coatings applied to metal parts and products which are to be used as an architectural structure.
- (4546) PRETREATMENT COATING is a coating which contains no more than 12 percent solids by weight, and at least 1/2-percent acid, by weight, is used to provide surface etching, and is applied directly to metal surfaces to provide corrosion resistance, adhesion, and ease of stripping.
- (4647) REACTIVE DILUENT is a liquid which is a VOC during application and one in which, through chemical reaction such as polymerization, 20 percent or more of the VOC becomes an integral part of a finished coating.
- (4748) REPAIR COATING is a coating used to recoat portions of a product which has sustained mechanical damage to the coating following normal painting operations.
- (4849) ROLL COAT is a coating method using a machine that applies coating to a substrate by continuously transferring coating through a pair or set of oppositely rotating rollers.
- (4950) SAFETY-INDICATING COATING is a coating which changes physical characteristics, such as color, to indicate unsafe conditions.
- (5051) SILICONE-RELEASE COATING is any coating which contains silicone resin and is intended to prevent food from sticking to metal surfaces such as baking pans.
- (5152) SOLAR-ABSORBENT COATING is a coating which has as its prime purpose the absorption of solar radiation.
- (5253) SOLID-FILM LUBRICANT is a very thin coating consisting of a binder system containing as its chief pigment material one or more of molybdenum disulfide, graphite, polytetrafluoroethylene (PTFE), or other solids that act as a dry lubricant between faying surfaces.
- (5354) STENCIL COATING is an ink or a coating which is rolled or brushed onto a template or stamp in order to add identifying letters and/or numbers to metal parts and products.
- (5455) TEXTURED FINISH is a rough surface produced by spraying and splattering large drops of coating onto a previously applied coating. The coatings used to form the appearance of the textured finish are referred to as textured coatings.
- (5556) TOUCH-UP COATING is a coating used to cover minor coating imperfections appearing after the main coating operation.
- (5657) TRANSFER EFFICIENCY is the ratio of the weight or volume of coating solids adhering to an object to the total weight or volume, respectively, of coating solids used in the application process, expressed as a percentage.



(~~57~~58) VACUUM-METALIZING COATING is the undercoat applied to the substrate on which the metal is deposited or the overcoat applied directly to the metal film.

(~~58~~59) VOLATILE ORGANIC COMPOUND (VOC) (see Rule 102\_\_Definition of Terms).

(c) Requirements

(1) Operating Equipment

A person shall not apply VOC-containing coatings to metal parts and products subject to the provisions of this rule unless the coating is applied with equipment operated according to the equipment manufacturer specifications, and by the use of one of the following methods:

- (A) Electrostatic application;~~;~~~~or~~
- (B) Flow coat;~~;~~~~or~~
- (C) Dip coat;~~;~~~~or~~
- (D) Roll coat;~~;~~~~or~~
- (E) High-Volume, Low-Pressure (HVLP) Spray;~~;~~~~or~~
- (F) Hand Application Methods;~~;~~ or
- (G) Such other coating application methods as are demonstrated to the Executive Officer to be capable of achieving a transfer efficiency equivalent or better to the method listed in subparagraph (c)(1)(E) and for which written approval of the Executive Officer has been obtained.

(2) VOC Content of Coatings

A person shall not apply to metal parts and products subject to the provisions of this rule any coatings, including any VOC-containing materials added to the original coating supplied by the manufacturer, which contain VOC~~s~~ in excess of the limits specified below:

<b>VOC LIMITS</b> <b>Less Water and Less Exempt Compounds</b> <b>Effective Dates</b>								
Coating	Air-Dried				Baked			
	gm/kg/L		lb/gal		gm/kg/L		lb/gal	
	Current	7/1/07	Current	7/1/07	Current	7/1/07	Current	7/1/07
General One-Component	275	275	2.3	2.3	275	275	2.3	2.3
General Multi-Component	340	340	2.8	2.8	275	275	2.3	2.3
Military Specification	340	340	2.8	2.8	275	275	2.3	2.3
Etching Filler	420	420	3.5	3.5	420	420	3.5	3.5
Solar-Absorbent	420	420	3.5	3.5	360	360	3.0	3.0
Heat-Resistant	420	420	3.5	3.5	360	360	3.0	3.0
Extreme High-Gloss	420	340	3.5	2.8	360	360	3.0	3.0
Metallic	420	420	3.5	3.5	420	<del>420</del> 360	3.5	<del>3.5</del> 3.0
Extreme Performance	420	420	3.5	3.5	360	360	3.0	3.0
Prefabricated Architectural One-Component	420	275	3.5	2.3	275	275	2.3	2.3
Prefabricated Architectural Multi-Component	420	340	3.5	2.8	275	275	2.3	2.3
Touch Up	420	420	3.5	3.5	360	360	3.0	3.0
Repair	420	420	3.5	3.5	360	360	3.0	3.0
Silicone Release	420	420	3.5	3.5	420	420	3.5	3.5
High-Performance Architectural	420	420	3.5	3.5	420	420	3.5	3.5
Camouflage	420	420	3.5	3.5	420	<del>420</del> 360	3.5	<del>3.5</del> 3.0
Vacuum-Metalizing	420	420	3.5	3.5	420	420	3.5	3.5
Mold-Seal	420	420	3.5	3.5	420	420	3.5	3.5

<b>VOC LIMITS (Continued)</b> <b>Less Water and Less Exempt Compounds</b> <b>Effective Dates</b>								
Coating	Air-Dried				Baked			
	gm/g/L		lb/gal		gm/g/L		lb/gal	
	Current	7/1/07	Current	7/1/07	Current	7/1/07	Current	7/1/07
High-Temperature	420	420	3.5	3.5	420	420	3.5	3.5
Electric-Insulating Varnish	420	420	3.5	3.5	420	420	3.5	3.5
Pan Backing	420	420	3.5	3.5	420	420	3.5	3.5
Pretreatment Coatings	420	420	3.5	3.5	420	420	3.5	3.5

- (3) A person shall not use VOC-containing materials which have a VOC content of more than 200 grams per liter of material for stripping any coating governed by this rule.
- (4) A person shall store and dispose of the following in closed containers, except when depositing or removing material from the container:
- (A) VOC-containing coatings, thinners, and coating-related waste materials applied to any metal parts and products subject to the provisions of this rule;
- (B) Containers used for the disposal of cloth or paper used in stripping cured coating; shall be closed except when depositing or removing the cloth or paper from the container; and
- (C) VOC-laden application tools, such as a brush, pad, rag, cloth, or paper, used in the application of coatings applied to any metal parts and products subject to the provisions of this rule.
- (5) Solvent cleaning of application equipment, parts, products, tools, machinery, equipment, general work areas, and the storage and disposal of VOC-containing materials used in cleaning operations shall be carried out pursuant to Rule 1171 – Solvent Cleaning Operations.
- (6) For coatings that contain reactive diluents, the Grams of VOC per Liter of Coating, Less Water and Less Exempt Compounds shall be calculated by the following equation:

Grams of VOC per Liter of Coating Less Water and Less Exempt Compounds

$$= \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

Where:  $W_s$  = weight of volatile compounds not consumed during curing, in grams  
 $W_w$  = weight of water not consumed during curing, in grams  
 $W_{es}$  = weight of exempt compounds not consumed during curing, in grams  
 $V_m$  = volume of the material prior to reaction, in liters  
 $V_w$  = volume of water not consumed during curing, in liters  
 $V_{es}$  = volume of exempt compounds not consumed during curing, in liters

(7) Owners ~~and/or~~ operators of control equipment may comply with provisions of paragraph (c)(1) and/or (c)(2) by using approved air pollution control equipment provided:

- (A) ~~the~~ The control device reduces VOC emissions from an emission collection system by at least 95 percent by weight or the output of the air pollution control device is no more than 5 ~~PPM~~ parts per million (ppm) VOC by volume calculated as carbon with no dilution; and
- (B) ~~the~~ The owner ~~or~~ operator demonstrates that the emission collection system collects at least 90 percent by weight of the VOC emissions generated by the sources of VOC emissions.

(d) Prohibition of Specifications

A person shall not specify the use in the ~~District~~ South Coast AQMD of any coating to be applied to any metal parts and products subject to the provisions of this rule that does not meet the limits and requirements of this rule. The requirements of this paragraph shall apply to all written and oral contracts.

(e) Methods of Analysis

All applicable methods of analysis shall be as cited in paragraphs (e)(1) through (e)(6) ~~below~~, or any other applicable method approved in writing by the Executive Officer, United States Environmental Protection Agency (U.S. EPA), and the California Air Resources Board (CARB).

(1) Determination of VOC ~~content~~ Content

The ~~volatile organic~~ VOC content of coatings subject to the provisions of this rule shall be determined by the following methods:

- (A) U.S. EPA Reference Method 24 (Title 40, Code of Federal Regulations, Title 40-Part 60, Appendix A) – Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings. The exempt solvent content shall be determined by South Coast AQMD Method 303 – {Determination of Exempt Compounds} contained in the South Coast AQMD "Laboratory Methods of Analysis for Enforcement Samples" manual; or;
- (B) South Coast AQMD Method 304 – {Determination of Volatile Organic Compounds (VOCs) in Various Materials} contained in the South Coast AQMD "Laboratory Methods of Analysis for Enforcement Samples" manual.

- (C) Exempt Perfluorocarbon Compounds

The following classes of compounds:

cyclic, branched, or linear, completely fluorinated alkanes;

cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;

cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and

sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine,

will be analyzed as exempt compounds for compliance with ~~paragraph~~ subdivision (c), only when manufacturers specify which individual compounds are used in the coating formulation. In addition, the manufacturers must identify the U.S. EPA, CARB, and the South Coast AQMD approved test methods used to quantify the amount of each exempt compound.

- (2) Determination of the Acid Content of Pretreatment Coatings and Etching Fillers  
The acid content of pretreatment coatings and etching fillers shall be ~~measured~~ determined by ASTM Test Method D1613-17 – Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products.

- (3) Determination of the Metal Particle Content of Metallic Coatings

The metal particle content of metallic coatings subject to the provisions of this rule shall be determined by the following methods:

- (A) South Coast AQMD Method 318 – (Determination of Weight Percent of Elemental Metal in Coatings by X-ray Ray Defraction-Diffraction Method) contained in the South Coast AQMD "Laboratory Methods of Analysis of for Enforcement Samples" manual for coatings containing elemental aluminum metal; or
  - (B) South Coast AQMD Method 311 – (Analysis of Percent Metal in Metallic Coatings by Spectrographic Method) contained in the South Coast AQMD "Laboratory Methods of Analysis of for Enforcement Samples" manual for all other non-aluminum particle content analyses.
- (4) Determination of Efficiency of Emission Control System
- (A) Capture efficiency specified in paragraph (c)(7), shall be determined by the procedures verifying the use of a Permanent Total Enclosure (PTE) and 100% capture efficiency as defined by U.S. EPA Method 204 – Permanent (PTE) or Temporary Total Enclosure (TTE) for Determining Capture Efficiency. Alternatively, if a U.S. EPA Method 204 defined PTE is not employed, capture efficiency shall be determined using a minimum of three sampling runs subject to data quality criteria presented in the U.S. EPA technical guidance document, "Guidelines for Determining Capture Efficiency", January 9, 1995." Individual capture efficiency test runs subject to the U.S. EPA technical guidance document shall be determined by:
    - (i) The Temporary Total Enclosure (TTE) approach of U.S. EPA Methods 204 through 204F; or
    - (ii) The South Coast AQMD "Protocol for Determination of Volatile Organic Compounds (VOC) Capture Efficiency."

Notwithstanding the test methods specified by the Guidelines technical guidance document, any other method approved in writing by the U.S. EPA, CARB, and the South Coast AQMD Executive Officer may be substituted.
  - (B) The efficiency of the control device of the emission control system as specified in paragraph (c)(7) and the VOC content in the control device exhaust gases, measured and calculated as carbon, shall be determined by the U.S. EPA Test Methods 25 – Determination of Total Gaseous Nonmethane Organic Emissions as Carbon, U.S. EPA Test Method 25A – Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer, South Coast AQMD Method 25.1 – (Determination of Total Gaseous Non-Methane Organic Emissions as Carbon), or South Coast

AQMD Method 25.3 ~~– (Determination of Low Concentration Non-Methane Non-Ethane Organic Compound Emissions from Clean Fueled Combustion Sources)~~, as applicable. U.S. EPA Test Method 18 – Measurement of Gaseous Organic Compound Emissions by Gas Chromatography, or CARB Method 422 – Determination of Volatile Organic Compounds in Emissions from Stationary Sources shall be used to determine emissions of exempt compounds.

(5) Multiple Test Methods

When more than one test method or set of methods are specified for any testing, a violation of any requirement of this rule established by any one of the specified test methods or set of test methods shall constitute a violation of the rule.

(6) Demonstrations of transfer efficiency shall be conducted in accordance with South Coast AQMD method "Spray Equipment Transfer Efficiency Test Procedure for Equipment User," May 24, 1989 and South Coast AQMD "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficiency Spray Guns", September 26, 2002.

(f) Exemptions

(1) The provisions of paragraphs (c)(1) and (c)(2) of this rule shall not apply to:

- (A) Stencil coatings;
- (B) Safety-indicating coatings;
- (C) Magnetic data storage disk coatings;
- (D) Solid-film lubricants; and
- (E) Electric-insulating and thermal-conducting coatings.

(2) The provisions of paragraph (c)(1) of this rule shall not apply to the application of touch-up coatings, repair coatings, and textured finishes. ~~This exemption shall expire for the application of metallic coatings which have a metallic content of 30 grams per liter, mold seal coatings, and to facilities that use less than 3 gallons per day or less than 66 gallons per calendar month of coating, as applied, including an VOC containing materials added to the original coating as supplied by the manufacturer, effective July 1, 2006.~~

(3) The provisions of paragraphs (c)(1), (c)(2), and (c)(3) of this rule do not apply to the application of coatings and use of cleaning solvents while conducting performance tests on the coatings at paint manufacturing facilities.

(4) ~~The provisions of paragraph (c)(2) of this rule shall not apply to high performance architectural, vacuum metalizing, and/or pretreatment coatings used at a facility~~

~~which has the potential to emit a total of 10 tons or less per year of VOCs, before application of add-on controls.~~

- (54) The provisions of paragraph (c)(2) of this rule shall not apply to aerosol coating products.
- (65) The provisions of paragraph (c)(2) of this rule shall not apply to the use of essential public service coatings provided such aggregate use does not exceed 55 gallons in any one calendar year per facility.
- (76) The provisions of paragraph (c)(2) of this rule shall not apply to the use of optical anti-reflective coatings provided such aggregate use does not exceed 10 gallons in any one calendar year, per facility.
- (8) ~~The provisions of paragraph (c)(2) shall not apply to electrocoatings provided the VOC content of coating concentrates do not exceed 450 grams per liter, less water and less exempt compounds, and the usage of coating concentrates is less than 66 gallons per calendar month, per facility, including any VOC-containing materials added to the concentrate, as supplied by the manufacturer, and any VOC-containing materials added to the bath as make-up solvents.~~
- (97) The provisions of paragraph (c)(2) shall not apply to photoresist operations applying liquid photoresist coating used for photofabrication of metal substrates with a thickness not exceeding 0.060 inches provided the annual usage per facility is 10 gallons or less.
- (8) The provisions of paragraph (c)(1) shall not apply to metal coatings with a viscosity of 650 centipoise or greater, as applied.

(g) Rule 442 Applicability

Any coating, coating operation, or facility which is exempt from all or a portion of the VOC limits of this rule shall comply with the provisions of Rule 442 – Usage of Solvents.

(h) Alternative Emission Control Plan

An owner~~/~~ or operator may achieve compliance with paragraph (c)(2) by means of an Alternative Emission Control Plan pursuant to Rule 108 – Alternative Emission Control Plans.

(i) Qualification for Classification as Extreme-Performance Coating

A coating may be classified as an extreme-performance coating provided that the applicator requests and receives written approval of such classification from the Executive Officer, ~~or designee~~, prior to application of such coating, and shows that the intended use of each coated object would require coating with an extreme-performance coating.



- (j) Recordkeeping  
Records of coating and solvent usage shall be maintained pursuant to Rule 109 \_\_  
Recordkeeping for Volatile Organic Compound Emissions.
  
- (k) Emission Reduction Credits  
Facilities that use high-performance architectural, pretreatment, or vacuum-metalizing coatings shall not receive emission reduction credit(s) pursuant to ~~SCAQMD~~-Rule 1309 \_\_  
Emission Reduction Credits and Short Term Credits above those emission reduction credit(s) that the facility would have received if it was operated with coatings having a VOC content of no more than 420 grams per liter, less water and less exempt compounds.

## ATTACHMENT G

### SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

#### **Final Staff Report**

#### **Proposed Amended Rule 1107 – Coating of Metal Parts and Products**

**February 2020**

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WAYNE NASTRI

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### APPENDIX A: COMMENTS AND RESPONSES

## **CHAPTER 1: BACKGROUND**

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INTRODUCTION

BACKGROUND

REASONABLY AVAILABLE CONTROL TECHNOLOGY

NEED FOR PROPOSED AMENDED RULE 1107

AFFECTED INDUSTRIES

PUBLIC PROCESS

## INTRODUCTION

Rule 1107 – Coating of Metal Parts and Products was adopted in June 1979 to control volatile organic compound (VOC) emissions from metal coating operations. The rule has been amended 17 times since, the last in January 2006. Rule 1107 establishes VOC limits for 22 categories of coatings classified as air-dried (cured below 194 degrees F) or baked (cured at or above 194 degrees F). VOC limits are prescribed for metal coatings in general and include multiple specialty categories. The broadest of the specialty categories include prefabricated architectural one- and multi- component coatings and extreme high-gloss coatings. The remainder of the coating categories encompasses mostly niche operations.

Non-attainment areas are required to implement recommendations in applicable Control Techniques Guidelines (CTG) as soon as practicable. The United States Environmental Protection Agency (U.S. EPA) issued a CTG for Miscellaneous Metal and Plastic Parts Coatings in September 2008.<sup>1</sup> Proposed Amended Rule 1107 is needed to address Reasonably ~~Achievable~~ Available Control Technology (RACT) deficiencies raised by U.S. EPA for certain exemptions that are overly broad. The California Air Resources Board (CARB) also requested that the limits for baked metallic and baked camouflage coatings be reduced consistent with other air districts.

## BACKGROUND

Metal coatings protect, and in some cases, beautify the substrate they are applied upon. These coatings provide some level of protection from impact, abrasion, and corrosion. They may also need to retain a consistent color and gloss level over an extended period of time. In addition to the desired properties of coating after curing, coatings must also have other acceptable characteristics, especially during application. This can include shelf life, sprayability, rheology, flow, pot life (for multi-component coatings), time-to-tack free, time-to-dry to recoat, and time until full cure. Quick drying times are not always the most desired feature. Acceptable drying times usually fall within a range that varies per the coating process and operation.

The industry sectors that make extensive use of coatings applied to metal parts and products include:

- Steel Product Manufacturing from Purchased Steel (NAICS 3312)
- Cutlery and Handtool Manufacturing (NAICS 3322)
- Architectural and Structural Metals Manufacturing (NAICS 3323)
- Boiler, Tank, and Shipping Container Manufacturing (NAICS 3324)
- Hardware Manufacturing (NAICS 3325)
- Coating, Engraving, Heat Treating, and Allied Activities (NAICS 3328)
- Other Fabricated Metal Product Manufacturing (NAICS 3329)
- Machinery Manufacturing (NAICS 333)
- Computer and Electronic Product Manufacturing (NAICS 334)
- Electrical Equipment, Appliance, and Component Manufacturing (NAICS 335)

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<sup>1</sup> Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings, U.S. Environmental Protection Agency, Office of Air Quality Planning Standards, Sector Policies and Program Division, September 2008, [https://www3.epa.gov/airquality/ctg\\_act/200809\\_voc\\_epa453\\_r-08-003\\_misc\\_metal\\_plasticparts\\_coating.pdf](https://www3.epa.gov/airquality/ctg_act/200809_voc_epa453_r-08-003_misc_metal_plasticparts_coating.pdf)

- Motor Vehicle Parts Manufacturing (NAICS 3363)
- Other Transportation Equipment Manufacturing (NAICS 3369)
- Metal Household Furniture Manufacturing (NAICS 337124)
- Institutional Furniture Manufacturing (NAICS 337127)
- Office Furniture (except Wood) Manufacturing (NAICS 337214)
- Showcase, Partition, Shelving, and Locker Manufacturing (NAICS 337215)
- Other Miscellaneous Manufacturing (NAICS 3399)

The industries that supply coatings to facilities are covered by the Paint and Coating Manufacturing sector (NAICS 325510).

### **REASONABLY AVAILABLE CONTROL TECHNOLOGY (RACT)**

The U.S. EPA has defined Reasonably Available Control Technology (RACT) as the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility. RACT for a particular source is determined on a case-by-case basis, considering the circumstances of the individual source. Non-attainment areas are required to implement recommendations in applicable Control Techniques Guidelines (CTG) as soon as practicable<sup>2</sup>. The U.S. EPA issued a CTG for Miscellaneous Metal and Plastic Parts Coatings in September 2008<sup>3</sup>. As part of the development of the CTG, U.S. EPA evaluated the sources of VOC emissions from the metal products coating industries and the available control approaches for addressing these emissions, including the costs of such approaches.

### **NEED FOR PROPOSED AMENDED RULE 1107**

PAR 1107 is needed to address several RACT deficiencies identified by the U.S. EPA. In particular, the exemptions for high-performance architectural, vacuum-metalizing, and pretreatment coatings (paragraph (f)(4)) and for electrocoatings (paragraph (f)(8)) are overly broad. In both cases, the exemption threshold is in excess of those allowed under the CTG. Additionally, U.S. EPA recommended improving work practices for storage and handling of metal coatings. CARB requested that the VOC limits for baked metallic and baked camouflage coatings be reduced from 420 grams/liter (g/L) to 360 g/L to improve rule effectiveness as these limits have been in place in multiple air districts for two decades. Other amendments update test methods, remove obsolete language, and clarify rule language.

### **AFFECTED INDUSTRIES**

Approximately 1,100 facilities are subject to existing Rule 1107. Proposed Amended Rule 1107 (PAR 1107) will not result in direct emission reductions and will not increase costs. Facilities are already using compliant coatings in the high-performance architectural, vacuum-metalizing, and pretreatment coatings and electrocoating categories. Excluding electrocoating, these specialty

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<sup>2</sup> Title 40, Code of Federal Regulations (CFR), Section 51.912

<sup>3</sup> Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings, U.S. Environmental Protection Agency, Office of Air Quality Planning Standards, Sector Policies and Program Division, September 2008, [https://www3.epa.gov/airquality/ctg\\_act/200809\\_voc\\_epa453\\_r-08-003\\_misc\\_metal\\_plasticparts\\_coating.pdf](https://www3.epa.gov/airquality/ctg_act/200809_voc_epa453_r-08-003_misc_metal_plasticparts_coating.pdf)

coating categories already have a 420 g/L VOC limit with numerous compliant coatings available for each category. Electrocoatings are a low-VOC alternative to traditional metal coatings. Reducing the limits for baked metallic and baked camouflage coatings will not result in emission reductions as these technologies have been in use for two decades. The work practice for storage and handling of metal coatings, application equipment, and waste materials consists of keeping VOC-containing or VOC-laden materials in closed containers when not in use. The updated test methods and removal of obsolete language provide clarification only.

## **PUBLIC PROCESS**

PAR 1107 is being developed through a public process. A Public Workshop was held December 4, 2019.



## **CHAPTER 2: SUMMARY OF PROPOSED AMENDED RULE 1107**

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### INTRODUCTION

#### PROPOSED AMENDED RULE 1107

Definitions (Subdivision (b))

Requirements (Subdivision (c))

Methods of Analysis (Subdivision (e))

Exemptions (Subdivision (f))

## INTRODUCTION

Proposed Amended Rule 1107 (PAR 1107) will revise certain exemptions to be consistent with Reasonable Available Control Technology (RACT) requirements as recommended in United States Environmental Protection Agency's (U.S. EPA's) *Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings* (September 2008). Baked metallic and baked camouflage coating limits will be reduced to be consistent with other air districts. Other amendments address work practices for coating-related activities, update test methods, remove obsolete provisions, and add clarifications.

## PROPOSED AMENDED RULE 1107

### *Definitions (Subdivision (b))*

A definition for Energy Curable Metal Coatings has been included to recognize this technology and provide manufacturers a test method to measure volatile organic compound (VOC) content from these coatings. An Energy Curable Coating is a single-component reactive product that cures when exposed to visible light, ultra-violet light, or an electron beam. ASTM D7767-11 (2018) – Standard Test Method to Measure Volatiles from Radiation Curable Acrylate Monomers, Oligomers, and Blends and Thin Coatings Made from Them may be used to calculate VOC content for Energy Curable Metal Coatings. Manufacturers will be able to use this test method to more accurately determine VOC content for recordkeeping and reporting. The method relies upon testing the coating for VOC content prior to admixing with known interferences such as pigments and sunblockers. Manufacturers then use U.S. EPA Reference Method 24 (Title 40, Code of Federal Regulations, Part 60, Appendix A) – Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings to determine the VOC content of the known interferences separately. The overall VOC content is calculated from the results of ASTM D7767-11 and U.S. EPA Reference Method 24. The separation aspect limits the utility of the method for compliance samples taken from the field as there is currently no way to separate the coatings after admixing them. Staff will continue to work with interested parties to develop an acceptable procedure to further incorporate into ASTM D7767-11. However, until the field sample issue is resolved, compliance sample testing will continue to be conducted using U.S. EPA Reference Method 24 or other applicable test methods.

The test method for extreme high-gloss coating has been updated to identify the correct method. The test method identified in high-performance architectural coatings has been updated to reflect changes made in Architectural Aluminum Manufacturer Association publications.

### *Requirements (Subdivision (c))*

Obsolete language in the table containing VOC limits in paragraph (c)(2) has been removed. VOC limits for baked metallic and baked camouflage are reduced from 420 grams/liter (g/L) to 360 g/L. The technology has been in use for two decades and these limits have been in place in multiple air districts during that time.

Work practices for storage and handling of metal coatings, application materials, and waste materials is included in paragraph (c)(4). VOC emissions may be reduced by storing VOC-containing coatings, thinners, and coating-related waste materials in closed containers. VOC-laden application tools, including brushes, cloth, or paper, shall be stored and disposed in closed containers.

***Methods of Analysis (Subdivision (e))***

For clarity, the titles have been added to: (e)(1)(A) for U.S. EPA Reference Method 24; (e)(2) for ASTM D1613; (e)(5) for U.S. EPA Test Methods 25, 25A and 18 and CARB Method 422.

Paragraph (e)(4) adds additional test methods to determine capture efficiency to reflect changes to U.S. EPA's technical guidance document<sup>1</sup>. The test methods in the 1995 guidelines were codified into Title 40, Code of Federal Regulations, Part 51, Appendix M, Methods 204-204F. Although several test methods are listed in paragraph (e)(4) for determination of capture efficiency and control device efficiency, staff's experience is that the majority of capture efficiency determinations will utilize EPA Method 204 and control efficiency determinations will utilize South Coast AQMD Methods 25.1 and/or 25.3. Other methods listed in paragraph (e)(4) may be used in rare circumstances but are most often not applicable.

Paragraph (e)(6) includes the guideline document that complement the referenced test procedure.

***Exemptions (Subdivision (f))***

Obsolete language has been removed from the exemption in paragraph (f)(2), the provision became effective July 1, 2006.

The exemption in paragraph (f)(4) for high-performance architectural, vacuum-metalizing and pretreatment coatings used at facilities that emit a total of 10 tons or less of VOC per year will be eliminated. The categories listed in this exemption already are allowed specialty VOC content coating limits of 420 g/L. The only facility that qualified under the existing high-performance architectural coating category already vents emissions to a control device. Previous rule amendments have eliminated the one gallon per day exemption. There are no known impacts from removing this exemption.

The high volume (66 gallon per month) exemption in paragraph (f)(8) for electrocoating will be eliminated. Advances in electrocoating technology have made electrocoating a low-VOC, non-Hazardous Air Pollutant (HAP) extension of the electroplating line. The electrocoating process is now a low-VOC alternative to traditional VOC-containing metal painting.

The exemption in paragraph (f)(8) adds flexibility to allow other spray equipment options where high viscosity coatings are used, typically in industrial maintenance applications. This situation may arise for very high solids coatings that would otherwise need to be thinned in order to be sprayed with HVLP guns. Thinning the coating would increase the VOC content. This exemption is consistent with similar provisions in Rule 1168 – Adhesive and Sealant Applications and Rule 1106 – Marine and Pleasure Craft Coatings.

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<sup>1</sup> Guidance Document for Correcting Common VOC & Other Rule Deficiencies, U.S. Environmental Protection Agency, August 2001, <https://ww3.arb.ca.gov/drrdb/lbb2001.pdf>

## **CHAPTER 3: IMPACT ASSESSMENT**

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INTRODUCTION

RULE ADOPTION RELATIVE TO COST EFFECTIVENESS

COMPLIANCE COSTS

SOCIOECONOMIC ASSESSMENT

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE SECTION  
40727

Requirements to Make Findings

Necessity

Authority

Clarity

Consistency

Non-Duplication

Reference

COMPARATIVE ANALYSIS

## INTRODUCTION

PAR 1107 is applicable to approximately 1,100 metal coating facilities. These facilities include fabricated metal product manufacturing, architectural and structural metals manufacturing, hardware and machinery manufacturing, and motor vehicle parts manufacturing among other categories. It does not include coatings used for aerospace assembly, magnet wire, marine craft, motor vehicle, metal container, and coil coating operations, or for architectural components coated at the structure site.

## RULE ADOPTION RELATIVE TO COST EFFECTIVENESS

PAR 1107 is not expected to result in direct emission reductions and will not increase costs.

## COMPLIANCE COSTS

No additional costs are expected to be incurred. Facilities are already using compliant coatings in the high-performance architectural, vacuum-metalizing, and pretreatment coatings and electrocoating categories. Those specialty coating categories already have a 420 g/L limit with numerous compliant coatings available for each category. Reducing the limits for baked metallic and baked camouflage coatings reflects technology that has been in use for the past two decades. The work practice for storage and handling of metal coatings, application equipment, and waste materials consists of keeping VOC-containing or VOC-laden materials in closed containers when not in use. The exemption for transfer efficiency on high-viscosity coatings provides added flexibility. The updated test methods and removal of obsolete language provide clarification only.

## SOCIOECONOMIC ASSESSMENT

The amendments proposed are not expected to impose any additional costs to facilities or result in other socioeconomic impacts. The proposed amendments do not significantly affect air quality or emissions limitations since facilities are already using compliant coatings, and therefore, no socioeconomic analysis is required under California Health and Safety Code Sections 40440.8 and 40728.5.

## CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Pursuant to the California Environmental Quality Act (CEQA), the South Coast AQMD, as Lead Agency, ~~will~~has prepared a Notice of Exemption pursuant to CEQA Guidelines Section 15062 – Notice of Exemption for the proposed project. Proposed Amended Rule 1107 has been reviewed pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. Since Proposed Amended Rule 1107 does not contain any project elements requiring physical modifications that would cause an adverse effect on the environment, it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Therefore, the project is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. If the project is approved, the Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties.

**DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE SECTION 40727*****Requirements to Make Findings***

California Health and Safety Code Section 40727 requires that prior to adopting, amending or repealing a rule or regulation, the South Coast AQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the staff report.

***Necessity***

Proposed Amended Rule 1107 is needed to revise exemptions to be consistent with Reasonable Available Control Technology requirements as recommended in United States Environmental Protection Agency's *Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings* (September 2008). Other amendments address work practices for coating-related activities, update test methods, remove obsolete provisions, align requirements with other air districts, provide flexibility, and add clarifications.

***Authority***

The South Coast AQMD Governing Board has authority to adopt Proposed Amended Rule 1107 pursuant to the California Health and Safety Code Sections 39002, 40000, 40001, 40440, 40702, 40725 through 40728, and 41508 and Title 40 of the Code of Federal Regulations (CFR) Section 51.912.

***Clarity***

Proposed Amended Rule 1107 is written or displayed so that its meaning can be easily understood by the persons directly affected by it. The removal of obsolete provisions and clarifications will improve the clarity.

***Consistency***

Proposed Amended Rule 1107 is in harmony with and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.

***Non-Duplication***

Proposed Amended Rule 1107 will not impose the same requirements as any existing state or federal regulations. The proposed amended rule is necessary and proper to execute the powers and duties granted to, and imposed upon, the South Coast AQMD.

***Reference***

By adopting Proposed Amended Rule 1107 the South Coast AQMD Governing Board will be implementing, interpreting or making specific the provisions of the Title 40 CFR 51.192.

**COMPARATIVE ANALYSIS**

Under California Health and Safety Code Section 40727.2, the South Coast AQMD is required to perform a comparative written analysis when adopting, amending, or repealing a rule or regulation. The comparative analysis is relative to existing federal requirements, existing or proposed South Coast AQMD rules and air pollution control requirements and guidelines which are applicable to metal coating operation. See Table 3-1 below.

**Table 3-1: PAR 1107 Comparative Analysis**

<b>Rule Element</b>	<b>PAR 1107</b>	<b>40 CFR Subpart MMM National Emission Standard for Hazardous Air Pollutants (NESHAP): Surface Coating of Miscellaneous Metal Parts and Products</b>	<b>40 CFR Subpart NNN National Emission Standard for Hazardous Air Pollutants (NESHAP): Surface Coating of Large Appliances</b>	<b>Control Techniques Guidelines for Metal Furniture Coatings</b>	<b>Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts</b>	<b>Control Techniques Guidelines for Large Appliance Coatings</b>
<b>Applicability</b>	Coating of metal parts and products excluding aerospace assembly, magnet wire, marine craft, motor vehicle, metal container, and coil coating operations, or for architectural components coated at the structure site	Metal coating operations excluding aerospace, large appliances, metal wire or cable, marine craft, coil coating, motor vehicles located at a major source of Hazardous Air Pollutant emissions	Metal coating operations on large appliances located at a major source of Hazardous Air Pollutant emissions	Coatings on metal furniture	Metal coatings excluding aerospace, large appliances, metal wire or cable, marine craft, coil coating, motor vehicles	Coatings on large metal appliances
<b>VOC Limits</b>	VOC limits by individual coating category or use of add-on controls; VOC limits are the same or lower than U.S. EPA Control Techniques Guidelines	Organic Hazardous Air Pollutant (HAP) emissions limited to 0.31 kg organic HAP per liter of coating solids used during each 12-month compliance period	Organic Hazardous Air Pollutant (HAP) emissions limited to 0.23 kg organic HAP per liter of coating solids used during each 12-month compliance period	VOC limits by individual coating category or use of add-on controls; all VOC limits are higher than PAR 1107	VOC limits by individual coating category or use of add-on controls; VOC limits are the same or higher than PAR 1107	VOC limits by individual coating category or use of add-on controls; all VOC limits are the same as PAR 1107
<b>Transfer Efficiency</b>	Use of HVLP or equivalent transfer efficiency	None	None	Use of HVLP or equivalent transfer efficiency	Use of HVLP or equivalent transfer efficiency	Use of HVLP or equivalent transfer efficiency
<b>Work Practices</b>	Storage, use, and disposal of coatings and waste; VOC limits and work practices for solvent cleaning	None	None	Storage, use, and disposal of coatings and waste; VOC limits and work practices for solvent cleaning	Storage, use, and disposal of coatings and waste; VOC limits and work practices for solvent cleaning	Storage, use, and disposal of coatings and waste; VOC limits and work practices for solvent cleaning

<b>Reporting</b>	None	Semiannual compliance, performance test reports, startup, shutdown, and malfunction reports	Semiannual compliance, performance test reports, startup, shutdown, and malfunction reports	None	None	None
<b>Notification</b>	None	Initial, performance test compliance status, and continuous emission monitor	Initial and compliance status	None	None	None
<b>Recordkeeping</b>	Compliance documentation maintained for two years	Compliance documentation maintained for five years	Compliance documentation maintained for five years	None	None	None



## **APPENDIX A: COMMENTS AND RESPONSES**

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**Comment Letter #1**  
Metropolitan Water District  
December 9, 2019

Hi Mr. Morris,

We appreciate that Rule 1107, Coating of Metal Parts and Products, is currently being amended for consistency with US EPA Reasonable Available Control Technology requirements, update of test methods, and language clean-up and clarifications. Along these lines and as has been discussed in the previous PAR 1107 rulemaking activities (5-11-11 correspondence attached), Metropolitan is requesting that a transfer efficiency provision for high viscosity coatings be also incorporated into the amended rule.

Specifically, the wording provided in the 7/18/12 Draft Proposed Amended Rule language, page 19, Section (f) Exemptions (8) (copy attached), is as follows: "The provisions of paragraph (c)(1) shall not apply to metal coatings with a viscosity of 650 centipoise or greater, as applied." This provision will recognize the lower VOC containing coatings and facilitate their proper application on a practical scale, as these types of coatings can require specialized applicators such as heated plural component airless, air-assisted spray guns or cartridge guns. Such an amendment would provide an alternative to using the higher VOC containing compliant coatings which typically are more readily applied with a HVLP gun.

Thank you for your consideration of this request. Incorporation of a transfer efficiency provision for high viscosity coatings will be consistent with similar requirements existing in Rules 1168 (Adhesive and Sealant Applications) and 1106 (Marine Coating Operations).

Should you have any questions or wish to discuss this matter further, please do not hesitate to contact me or Roxana Ramirez [ramirez@mwdh2o.com; (213) 217-6407].

Best Regards,

**CAROL KAUFMAN**

Air Quality Program Manager

Metropolitan Water District of Southern California

700 North Alameda Street

Los Angeles, CA 90012

213-217-6207

FAX 213-217-6700

Cell 310-850-6105



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1-1

Proposed Amended Rule 1107

(Amended January 6, 2006)

- ~~containing materials added to the original coating as supplied by the manufacturer, effective July 1, 2006.~~
- (3) The provisions of paragraphs (c)(1), (c)(2), ~~and (c)(3), (d)(1) and (d)(2)~~ of this rule do not apply to the application of coatings and use of cleaning solvents ~~while used for~~ conducting performance tests on the coatings at paint manufacturing facilities.
- ~~(4) The provisions of paragraph (c)(2) of this rule shall not apply to high performance architectural, vacuum metalizing, and/or pretreatment coatings used at a facility which has the potential to emit a total of 10 tons or less per year of VOCs, before application of add-on controls.~~
- ~~(5) The provisions of paragraphs (c)(1), (c)(2), (d)(1), (d)(2) and (i)(1) of this rule shall not apply to aerosol coating products.~~
- ~~(6) The provisions of paragraphs (c)(2), (c)(3), (d)(1), (d)(2) and (i)(1) of this rule shall not apply to the use of essential public service coatings with VOC contents of 500 g/l or less provided such aggregate use does not exceed 55 gallons in any one calendar year per facility.~~
- ~~(7) The provisions of paragraphs (c)(2) and (d)(1) of this rule shall not apply to the use of optical anti-reflective coatings provided such aggregate use does not exceed 10 gallons in any one calendar year, per facility.~~
- ~~(8) The provisions of paragraph (c)(2) shall not apply to electrocoatings provided the VOC content of coating concentrates do not exceed 450 grams per liter, less water and less exempt compounds, and the usage of coating concentrates is less than 66 gallons per calendar month, per facility, including any VOC-containing materials added to the concentrate, as supplied by the manufacturer, and any VOC-containing materials added to the bath as make up solvents.~~
- ~~(9) The provisions of paragraphs (c)(2) and (d)(1) shall not apply to photoresist operations applying liquid photoresist coating used for photofabrication of metal substrates with a thickness not exceeding 0.060 inches provided the annual usage per facility is 10 gallons or less.~~
- (8) The provisions of paragraph (c)(1) shall not apply to metal coatings with a viscosity of 650 centipoise or greater, as applied.
- (9) The provisions of paragraph (i)(1) shall not apply to any Super Compliant Material(s). This exemption shall only apply to facilities that demonstrate that total permitted and non-permitted facility VOC emissions do not

PAR1107-19

Response to Comment 1-1

Proposed Amended Rule 1107 includes an exemption adding flexibility to allow other spray equipment options where high viscosity coatings are used, typically in industrial maintenance applications. This situation may arise for very high solids coatings that would otherwise need to be thinned in order to be sprayed with HVLP guns. Thinning the coating would add unnecessary VOC emissions. This exemption is consistent with similar provisions in Rule 1168 – Adhesive and Sealant Applications and Rule 1106 – Marine and Pleasure Craft Coatings.

**Comment Letter #2**  
**California Air Resources Board**  
**December 10, 2019**

Hi Mike,

Below are comments from CARB staff regarding PAR 1107, *Coating of Metal Parts and Products*:

The California Air Resources Board (CARB) received Proposed Amended Rule (PAR) 1107, *Coating of Metal Parts and Products*, on November 22, 2019 for review. The South Coast Air Quality Management District (South Coast AQMD) held a public workshop on December 4, 2019 to present and solicit information and comments on PAR 1107. The South Coast AQMD Governing Board plans to hear PAR 1107 on February 7, 2020.

CARB has reviewed the rule and have comments below. CARB believes that the comments are important to the effectiveness and enforceability of Rule 1107.

On December 10, 2019, Ms. Joyce Wong of the Technical Development Section, Consumer Products and Air Quality Assessment Branch, Air Quality and Planning Science Division, discussed the comments with you.

If you have any questions about the comments, please contact Ms. Joyce Wong, Air Pollution Specialist, Technical Development Section, at (916) 323-1182 or at [joyce.wong@arb.ca.gov](mailto:joyce.wong@arb.ca.gov), or Mr. Glen Villa, Air Resources Engineer, Technical Development Section, at (916) 324-8177 or at [glen.villa@arb.ca.gov](mailto:glen.villa@arb.ca.gov).

Rule review comments are below.

California Air Resources Board Staff Comments on South Coast Air Quality Management District  
Proposed Amended Rule (PAR) 1107

Rule 1107 – Coating of Metal Parts and Products

1. General: At the header of pages 2-14 in PAR 1107, the previous amended date, which has strikethrough marking, is January 6, 2016. The correct date is January 6, 2006.
2. Section (c)(2): Section (c)(2) provides limitations for the VOC content of coatings. The VOC limit for camouflage/baked coatings is 420 grams/liter (g/L), which exceeds the VOC limit of 360 g/L contained in metal parts coating rules for seven local air districts. For improved rule effectiveness, CARB recommends that the South Coast AQMD revise the VOC limit for camouflage/baked coatings to 360 g/L.

Section (c)(2): Section (c)(2) provides limitations for the VOC content of coatings. The VOC limit for metallic/baked coatings is 420 grams/liter (g/L), which exceeds the VOC limit of 360 g/L contained in metal parts coating rules for six local air districts. For improved rule effectiveness, CARB recommends that the South Coast AQMD revise the VOC limit for metallic/baked coatings to 360 g/L.

Thank you.

2-1

2-2

Sincerely,  
Stephanie



Stephanie Parent,  
Air Pollution Specialist  
California Air Resources Board  
Air Quality Planning and Science Division | South Coast Section

P.O. Box 2815  
Sacramento, CA 95812  
Phone: (916) 324-0551  
Fax: (916) 322-4357  
[stephanie.parent@arb.ca.gov](mailto:stephanie.parent@arb.ca.gov)  
[www.arb.ca.gov](http://www.arb.ca.gov)

Response to Comment 2-1

The typographical error has been corrected.

Response to Comment 2-2

VOC limits for baked metallic and baked camouflage are reduced from 420 grams/liter (g/L) to 360 g/L in paragraph (c)(2). The technology has been in use for two decades and these limits have been in place in multiple air districts during that time. No additional emission reductions or costs are expected to occur from these changes.

**Comment Letter #3**

RadTech  
December 18, 2019



December 18<sup>th</sup>, 2019

Mr. Michael Morris  
Planning and Rules Manager  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765  
[mmorris@aqmd.gov](mailto:mmorris@aqmd.gov)

Re: Public comments to Proposed Amended Rule 1107 (Coating of Metal Parts and Products)

Dear Mike:

RadTech International is pleased to comment on the proposed amendments to Rule 1107. Although UV/EB/LED technology does not dominate the metal parts and products coatings market, it is being used for this type of coating application. RadTech supports the district's efforts to improve air quality in the Basin without sacrificing a healthy business climate and believes that the implementation of UV/EB technology can accomplish both goals.

**Request for Exemption**

The staff presentation at the workshop states that there are "No changes to VOC limits" contemplated by the amendment. Our Association believes that the district can achieve voluntary emission reductions from companies who convert their processes to UV/EB/LED technology. RadTech urges the district to provide regulatory flexibility to UV/EB/LED processes. Our materials are typically well below 50 grams/liter in VOC content which is minimal compared to the proposed limits, some as high as 420 grams/liter. In keeping with past district policies and direction from the Governing Board, we respectfully request that UV/EB/LED materials be exempted from the rule requirements. An exemption would be an incentive for businesses to voluntarily choose UV/EB/LED technology resulting in additional emission reductions for the District.

3-1

**Test Method**

We very much appreciate the inclusion of a definition for energy curable materials in the rule and inclusion of ASTM D7767 (the test method for thin film UV/EB curable materials). We are also encouraged by your commitment to "continue to work with stakeholders to develop an acceptable procedure to allow use of ASTM D 7767-11 for field samples." We stand ready to collaborate with the District on any effort to address the issue. In order to increase consistency and avoid confusion, we urge the district to include ASTM F7767-11 in Section (e) "Methods of Analysis". The current

3-2



language that allows “multiple” test methods is vague and could result in enforcement problems for our members and their customers.

3-2  
(Cont)

#### **Support for other Stakeholders**

It is our understanding that other stakeholders such as the Metropolitan Water District, may be interested in an exemption for high viscosity (above 650 cps) materials from the transfer efficiency requirements of the rule. Flexibility should be offered to UV/EB/LED processes as related to the requirements for transfer efficiency in the rule. UV/EB materials not only meet, but far exceed any proposed rule requirements and any added flexibility to companies that choose these pollution preventive processes will encourage voluntary emission reductions thereby furthering the district’s mission.

3-3

We appreciate your attention to this matter and look forward to a productive rulemaking process.

Sincerely,

Rita M. Loof

Director, Environmental Affairs

Cc: [mwpatrik@verizon.net](mailto:mwpatrik@verizon.net); [maefix@nabors.org](mailto:maefix@nabors.org); [bscrites@nabors.org](mailto:bscrites@nabors.org); [jacob.hall@city.org](mailto:jacob.hall@city.org); [jenny.chen@city.org](mailto:jenny.chen@city.org); [maracch@cityofaloe.com](mailto:maracch@cityofaloe.com); [mitcham@verizon.net](mailto:mitcham@verizon.net); [Andrew.williams@baselcounty.gov](mailto:Andrew.williams@baselcounty.gov); [diana.morris@portcharcoal.edu](mailto:diana.morris@portcharcoal.edu); [blaney@cityoffullerton.org](mailto:blaney@cityoffullerton.org); [rthegand@gmail.com](mailto:rthegand@gmail.com); [Superior@wharford@baselcounty.gov](mailto:Superior@wharford@baselcounty.gov); [mail.nyke@baselcounty.gov](mailto:mail.nyke@baselcounty.gov); [Judy.M@Cieling-Bill-Estate.com](mailto:Judy.M@Cieling-Bill-Estate.com); [Mark@lakewood@gmail.com](mailto:Mark@lakewood@gmail.com); [Natalie.Wickert@ocgov.com](mailto:Natalie.Wickert@ocgov.com); [Andrea.Felk@ocgov.com](mailto:Andrea.Felk@ocgov.com); [lmccollins@cityofhighland.org](mailto:lmccollins@cityofhighland.org); [dsammarino@icloud.com](mailto:dsammarino@icloud.com); [arobinson@lake6.net](mailto:arobinson@lake6.net); [Martha.Hess@abminw.edu](mailto:Martha.Hess@abminw.edu); [karelyr@gmail.com](mailto:karelyr@gmail.com); [codlene4@yahoo.com](mailto:codlene4@yahoo.com); [manuelberez@nucor.org](mailto:manuelberez@nucor.org); [cob@agmd.gov](mailto:cob@agmd.gov); [Lisa.Bartlett@agmd.gov](mailto:Lisa.Bartlett@agmd.gov); [Fourthstrik@baselcounty.gov](mailto:Fourthstrik@baselcounty.gov); [natequao@agmd.gov](mailto:natequao@agmd.gov); [sherrana47@agmd.gov](mailto:sherrana47@agmd.gov); [qqonzele7@agmd.gov](mailto:qqonzele7@agmd.gov); [Kathryn@baselcounty.gov](mailto:Kathryn@baselcounty.gov)

Response to Comment 3-1

Staff acknowledges the typically low VOC content of UV/EB/LED processes. Exemptions are included in rules for operations where there are challenges with complying with rule requirements. Staff is unaware of any situation where UV/EB/LED processes are having difficulty and therefore an exemption is unnecessary. Staff does not see any incentive difference between a compliant process and an exempt process.

Response to Comment 3-2

Staff will continue to collaborate with stakeholders to develop an acceptable procedure to allow the use of ASTM D7767 for field samples and appreciate your offer to provide expertise and assistance in this endeavor.

Response to Comment 3-3

Please see Response to Comment 1-1.

ATTACHMENT H



# South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178  
(909) 396-2000 • www.aqmd.gov

**SUBJECT: NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT**

**PROJECT TITLE: PROPOSED AMENDED RULE 1107 – COATING OF METAL PARTS AND PRODUCTS**

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the South Coast Air Quality Management District (South Coast AQMD), as Lead Agency, has prepared a Notice of Exemption pursuant to CEQA Guidelines Section 15062 – Notice of Exemption for the project identified above.

South Coast AQMD staff is proposing to amend Rule 1107 to revise certain exemptions to be consistent with Reasonably Available Control Technology requirements as recommended in United States Environmental Protection Agency's Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings (September 2008). Volatile Organic Compound (VOC) limits for baked metallic and baked camouflage coatings will be reduced from 420 grams/liter (g/L) to 360 g/L as requested by California Air Resources Board. Since compliant coatings are currently available and in use, no physical changes will be necessary to comply with Proposed Amended Rule 1107. Other amendments are proposed to address work practices for coating-related activities, update test methods, remove obsolete provisions, and make clarifications.

The proposed project has been reviewed pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. Since Proposed Amended Rule 1107 does not contain any project elements requiring physical modifications that would cause an adverse effect on the environment, it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Therefore, the project is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. If the project is approved, this Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino counties.

Any questions regarding this Notice of Exemption should be directed to Luke Eisenhardt (c/o Planning, Rule Development, and Area Sources) at the above address. Mr. Eisenhardt can also be reached at (909) 396-2324. Ms. Uyen-Uyen Vo is also available at (909) 396-2238 to answer any questions regarding Proposed Amended Rule 1107.

**Date:** January 16, 2020

**Signature:**

A handwritten signature in black ink, appearing to read "Barbara Radlein", is written over a horizontal line.

Barbara Radlein  
Program Supervisor, CEQA  
Planning, Rule Development, and Area Sources

**NOTICE OF EXEMPTION FROM THE  
CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)**

<b>To:</b> County Clerks Counties of Los Angeles, Orange, Riverside and San Bernardino	<b>From:</b> South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765
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**Project Title:** Proposed Amended Rule 1107 – Coating of Metal Parts and Products

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**Project Location:** The project is located within the South Coast Air Quality Management District (South Coast AQMD) jurisdiction which includes the four-county South Coast Air Basin (all of Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB).

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**Description of Nature, Purpose, and Beneficiaries of Project:** South Coast AQMD staff is proposing to amend Rule 1107 to revise certain exemptions to be consistent with Reasonably Available Control Technology requirements as recommended in United States Environmental Protection Agency's Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings (September 2008). Volatile Organic Compound (VOC) limits for baked metallic and baked camouflage coatings will be reduced from 420 grams/liter (g/L) to 360 g/L as requested by California Air Resources Board. Since compliant coatings are currently available and in use, no physical changes will be necessary to comply with Proposed Amended Rule 1107. Other amendments are proposed to address work practices for coating-related activities, update test methods, remove obsolete provisions, and make clarifications.

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<b>Public Agency Approving Project:</b> South Coast Air Quality Management District	<b>Agency Carrying Out Project:</b> South Coast Air Quality Management District
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**Exempt Status:**

CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption

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**Reasons why project is exempt:** Pursuant to the California Environmental Quality Act (CEQA), South Coast AQMD staff, as Lead Agency, has reviewed Proposed Amended Rule 1107 in accordance with: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. Since Proposed Amended Rule 1107 does not contain any project elements requiring physical modifications that would cause an adverse effect on the environment, it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Therefore, the project is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption.

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**Date When Project Will Be Considered for Approval (subject to change):**

South Coast AQMD Governing Board Hearing: February 7, 2020; South Coast AQMD Headquarters

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<b>CEQA Contact Person:</b> Mr. Luke Eisenhardt	<b>Phone Number:</b> (909) 396-2324	<b>Email:</b> <a href="mailto:leisenhardt@aqmd.gov">leisenhardt@aqmd.gov</a>	<b>Fax:</b> (909) 396-3982
<b>Regulation Contact Person:</b> Ms. Uyen-Uyen Vo	<b>Phone Number:</b> (909) 396-2238	<b>Email:</b> <a href="mailto:uvo@aqmd.gov">uvo@aqmd.gov</a>	<b>Fax:</b> (909) 396-3807

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**Date Received for Filing:** \_\_\_\_\_ **Signature:** \_\_\_\_\_ *(Signed Upon Board Approval)*

Barbara Radlein  
Program Supervisor, CEQA  
Planning, Rule Development, and Area Sources



# Proposed Amended Rule 1107 Coating of Metal Parts and Products

**Governing Board Meeting**

February 7, 2020



# Background

- ▶ Rule 1107 was adopted in 1979; amended 17 times
  - ▶ Last amendment in January 2006
- ▶ Establishes VOC limits, work practices, test methods, and recordkeeping requirements for many metal coating operations
- ▶ In September 2008, U.S. EPA released Control Techniques Guideline (CTG) for Metal and Plastic Parts Coatings
  - ▶ Non-attainment areas are required to implement as soon as practicable
  - ▶ CTG includes improved work practices and more stringent requirements for certain exemptions
- ▶ CARB is requesting limits for two coating categories be reduced to reflect limits adopted in other air districts

# Proposed Amendments Requested by U.S. EPA and CARB

Reduce VOC limits for baked metallic and baked camouflage coatings ☒

Add work practices for storage and handling of materials ☒

Remove high volume exemptions ☒

Update test methods ☒

Clarify and remove obsolete rule language ☒

# Potential Rule Impacts

- ▶ Proposed Amended Rule 1107 is not expected to result in direct emission reductions or increased costs
  - ▶ Compliant coatings have been used in affected coating categories for two decades
  - ▶ Using closed containers satisfies work practice requirements
- ▶ Staff is not aware of any unresolved key issues



# Proposed Amendments Included as Requested by Stakeholders

Allow manufacturers to use ASTM D 7767 for Energy Curable Coatings



- ASTM D 7767 provides an improved test for VOC determination
- Staff will continue to work with stakeholders to develop field sample procedure – would require future rule amendment when complete

Exempt high-viscosity coatings from transfer efficiency requirements



- Transfer efficiency exemption will avoid unnecessary VOC emissions from thinning

# Staff Recommendation

- ▶ Adopt the Resolution
  - ▶ Determining that PAR 1107 is exempt from the requirements of CEQA
  - ▶ Amending Rule 1107

