South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SUBJECT: **NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL ASSESSMENT**

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

In accordance with the California Environmental Quality Act (CEQA), the South Coast Air Quality Management District (SCAQMD), as the Lead Agency, has prepared this Notice of Preparation (NOP) and Initial Study (IS). This NOP serves two purposes: 1) to solicit information on the scope of the environmental analysis for the proposed project, and 2) to notify the public that the SCAQMD will prepare a Draft Environmental Assessment (EA) to further assess potential environmental impacts that may result from implementing the proposed project.

This letter, NOP and the attached IS are not SCAQMD applications or forms requiring a response from you. Their purpose is simply to provide information to you on the above project. If the proposed project has no bearing on you or your organization, no action on your part is necessary.

Comments focusing on your area of expertise, your agency's area of jurisdiction, or issues relative to the environmental analysis should be addressed to Ms. Barbara Radlein (c/o CEQA) at the address shown above, or sent by FAX to (909) 396-3324 or by e-mail to bradlein@aqmd.gov. Comments must be received no later than 5:00 PM on Wednesday, July 25, 2012. Please include the name and phone number of the contact person for your agency. Questions relative to the proposed amended rule should be directed to Mr. Michael Morris at (909) 396-3282 or by email to mmorris@aqmd.gov.

The Public Hearing for the proposed amended rule is scheduled for November 2, 2012. (Note: Public meeting dates are subject to change).

Date: June 22, 2012 **Signature:** Steve Smith

Steve Smith, Ph.D.
Program Supervisor
Planning, Rules, and Area Sources

Reference: California Code of Regulations, Title 14, Sections 15082(a), 15103, and 15375

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Drive, Diamond Bar, CA 91765-4178

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL ASSESSMENT

Project Title:
Draft Environmental Assessment for Proposed Amended Rule 1107 – Coating of Metal Parts and Products

Project Location:
South Coast Air Quality Management District (SCAQMD) area of jurisdiction consisting of the four-county South Coast Air Basin (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 and the Mojave Desert Air Basin

Description of Nature, Purpose, and Beneficiaries of Project:
SCAQMD staff is proposing amendments to Rule 1107 – Coating of Metal Parts and Products, to update the requirements to reflect technological improvements in the coatings industry. Proposed amended Rule (PAR) 1107 would reduce emissions of volatile organic compounds (VOC) from metal coatings by: 1) amending VOC limits for certain coating categories and establishing new coating categories with new VOC content limits; 2) expanding the applicability to include certain metal stripping operations; 3) modifying the definition of and requirements for extreme-performance coatings; 4) allowing limited use of coatings containing tertiary-butyl acetate (t-BAc) and dimethyl carbonate (DMC); 5) including a prohibition of sales for metal coatings that exceed applicable VOC content limits; 6) prohibiting the use of Group II exempt solvents in metal coatings or strippers; 7) removing or limiting existing exemptions; 8) including streamlined recordkeeping options for super-compliant coatings; and, 9) including additional administrative requirements and corrections to clarify rule language and remove obsolete provisions. The Initial Study identifies the topics of air quality, and hazards and hazardous materials as areas that may be adversely affected by the proposed project. Impacts to these environmental areas will be further analyzed in the Draft EA. PAR 1107 is anticipated to reduce VOC emissions by 1.65 tons per day.

Lead Agency:	**Division:**
South Coast Air Quality Management District	Planning, Rule Development and Area Sources

Initial Study and all supporting documentation are available at:	**or by calling:**	**or by accessing the SCAQMD's website at:**
SCAQMD Headquarters 21865 Copley Drive Diamond Bar, CA 91765	(909) 396-2039	http://www.aqmd.gov/ceqa/aqmd.html

The Public Notice of Preparation is provided through the following:

☑ Los Angeles Times (June 26, 2012) ☑ AQMD Website ☑ AQMD Mailing List

Initial Study 30-day Review Period:
June 26, 2012 – July 25, 2012

Scheduled Public Meeting Dates (subject to change):
Public Consultation/CEQA Scoping Meeting: July 18, 2012, 9:00 a.m.; SCAQMD Headquarters
SCAQMD Governing Board Hearing: November 2, 2012, 9:00 a.m.; SCAQMD Headquarters

The proposed project may have statewide, regional or areawide significance; therefore, a CEQA scoping meeting is required (pursuant to Public Resources Code §21083.9(a)(2)).

Send CEQA Comments to:	**Phone:**	**Email:**	**Fax:**
Ms. Barbara Radlein	(909) 396-2716	bradlein@aqmd.gov	(909) 396-3324

Direct Questions on Proposed Amendments:	**Phone:**	**Email:**	**Fax:**
Mr. Michael Morris	(909) 396-3282	mmorris@aqmd.gov	(909) 396-3324

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Initial Study for Proposed Amended Rule 1107 – Coating of Metal Parts and Products

June 2012

SCAQMD No. 06222012BAR
State Clearinghouse No: To Be Determined

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CHAPTER 1 - PROJECT DESCRIPTION

Introduction

California Environmental Quality Act

Project Location

Project Background

Project Description

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Alternatives

INTRODUCTION

The California Legislature created the South Coast Air Quality Management District (SCAQMD) in 1977[1] as the agency responsible for developing and enforcing air pollution control rules and regulations in the South Coast Air Basin (Basin) and portions of the Salton Sea Air Basin and Mojave Desert Air Basin referred to herein as the district. By statute, the SCAQMD is required to adopt an air quality management plan (AQMP) demonstrating compliance with all federal and state ambient air quality standards for the district[2]. Furthermore, the SCAQMD must adopt rules and regulations that carry out the AQMP[3]. The 2007 AQMP concluded that major reductions in emissions of particulate matter (PM), oxides of sulfur (SOx) and oxides of nitrogen (NOx) are necessary to attain the state and national ambient air quality standards for ozone, particulate matter with an aerodynamic diameter of 10 microns or less (PM10) and particulate matter with an aerodynamic diameter of 2.5 microns or less (PM2.5). More emphasis is placed on NOx and SOx emission reductions because they provide greater ozone and PM emission reduction benefits than volatile organic compound (VOC) emission reductions. VOC emission reductions, along with NOx emission reductions, continue to be necessary, because emission reductions of both of these ozone precursors are necessary to meet the ozone standards. VOC emission reductions also contribute to achieving the PM2.5 ambient air quality standards. Proposed amended Rule (PAR) 1107 – Coating of Metal Parts and Products, would partially implement 2007 AQMP Control Measure CM #2007 MCS-07 – Application of All Feasible Measures, to achieve additional VOC emission reductions from coating and solvent rules, as explained in more detail below.

Ozone, a criteria pollutant that is formed when NOx and VOCs react in the atmosphere, has been shown to adversely affect human health. The federal one-hour[4] and eight-hour ozone standards were exceeded in the district in 2010. The Central San Bernardino Mountain area recorded the greatest number of exceedences of the one-hour state standard (52 days), eight-hour state standard (101 days), and eight-hour federal standard (74 days). However, none of the four counties had health advisory days in 2010. Altogether, in 2010, the South Coast Air Basin exceeded the federal eight-hour ozone standard on 102 days, the state one-hour ozone standard on 79 days, and the state eight-hour ozone standard on 131 days[5].

Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations of VOCs because of interference with oxygen uptake. In general, ambient VOC concentrations in the atmosphere are suspected to cause coughing, sneezing, headaches, weakness, laryngitis, and bronchitis, even at low concentrations. Some hydrocarbon components classified as VOC emissions are thought or known to be toxic air contaminants (TACs). With stationary and mobile sources being the major producers of VOCs, which contribute to ozone formation, reducing the quantity of VOCs in the district has been an on-going priority effort by the SCAQMD.

The California Clean Air Act (CCAA) requires districts to achieve and maintain state standards by the earliest practicable date and for extreme non-attainment areas, to include all feasible

[1] The Lewis-Presley Air Quality Management Act, 1976 Cal. Stats., ch 324 (codified at Health and Safety Code, §§40400-40540).
[2] Health and Safety Code, §40460 (a).
[3] Health and Safety Code, §40440 (a).
[4] The federal one-hour ozone standard was replaced by the federal eight-hour ozone standard, effective June 15, 2005.
[5] 2010 Air Quality Historical Data, South Coast Air Quality Management District, http://www.aqmd.gov/smog/historical/AQ10card.pdf.

measures pursuant to Health and Safety Code §§40913, 40914, and 40920.5. The term "feasible" is defined in the Title 14 of the California Code of Regulations, §15364, as a measure "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."

Rule 1107 applies to all metal coatings operations except those performed on aerospace assembly, magnet wire, marine craft, motor vehicle, metal container, and coil coating operations. Typical facilities include metal furniture manufacturers, fabricated metal product manufacturers, small and large appliance manufacturers, metal finishers and the paint and coating manufacturers that supply products to the metal manufacturing shops. Some examples of products whose manufacturing processes would be subject to Rule 1107 are rain gutters, wrought iron gates, oil rig equipment, metal furniture, and trash bins. Rule 1107 has been amended 17 times since 1979. However, of these amendments, the VOC limits for the general metal coating category has not changed in more than twelve years despite substantial achievements in technological advancements of general metal coatings.

The 2007 AQMP Control Measure CM#2007 MCS-07 contains unspecified VOC reduction goals that apply to a variety of emission sources. Based on the general VOC reduction goals in the 2007 AQMP and the technological advancements achieved for general metal coatings, PAR 1107 would partially implement Control Measure CM #2007 MCS-07 to reduce VOC emissions from the general metal coatings category as well as other coatings categories applicable to the coating of metal parts and products. Upon full implementation, the anticipated emission reductions of VOCs from implementing PAR 1107 are estimated at 1.65 tons per day.

Despite this projected environmental benefit to air quality, this Initial Study, prepared pursuant to the California Environmental Quality Act (CEQA), identifies the following environmental topics as areas that may be adversely affected by the proposed project: air quality and hazards and hazardous materials. A Draft Environmental Assessment (EA) will be prepared to analyze further whether the potential impacts to these environmental topics are significant. Any other potentially significant environmental impacts identified through this Notice of Preparation/Initial Study process will also be analyzed in the Draft EA.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

PAR 1107 is considered a "project" as defined by CEQA. CEQA requires that the potential adverse environmental impacts of proposed projects be evaluated and that methods to reduce or avoid identified significant adverse environmental impacts of these projects be implemented if feasible. The purpose of the CEQA process is to inform the SCAQMD's Governing Board, public agencies, and interested parties of potential adverse environmental impacts that could result from implementing the proposed project and to identify feasible mitigation measures or alternatives, when an impact is significant.

California Public Resources Code §21080.5 allows public agencies with regulatory programs to prepare a plan or other written documents in lieu of an environmental impact report once the Secretary of the Resources Agency has certified the regulatory program. The SCAQMD's regulatory program was certified by the Secretary of Resources Agency on March 1, 1989, and is codified as SCAQMD Rule 110. Pursuant to Rule 110 (the rule which implements the SCAQMD's certified regulatory program), SCAQMD is preparing a Draft EA to evaluate potential adverse impacts from the proposed project.

The SCAQMD, as Lead Agency for the proposed project, has prepared this Initial Study that includes an Environmental Checklist and project description. The Environmental Checklist provides a standard evaluation tool to identify a project's adverse environmental impacts. The Initial Study is also intended to provide information about the proposed project to other public agencies and interested parties prior to the release of the Draft EA. Written comments on the scope of the environmental analysis will be considered (if received by the SCAQMD during the 30-day review period) when preparing the Draft EA.

PROJECT LOCATION

The proposed amendments to Rule 1107 would apply to activities associated with the coating of metal parts and products at affected facilities located throughout the SCAQMD's entire jurisdiction. The SCAQMD has jurisdiction over an area of approximately 10,743 square miles, consisting of the four-county South Coast Air Basin (Basin) (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). The Basin, which is a subarea of the SCAQMD's jurisdiction, is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east. It includes all of Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino counties. The Riverside County portion of the SSAB is bounded by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley. The federal nonattainment area (known as the Coachella Valley Planning Area) is a subregion of Riverside County and the SSAB that is bounded by the San Jacinto Mountains to the west and the eastern boundary of the Coachella Valley to the east (Figure 1-1).

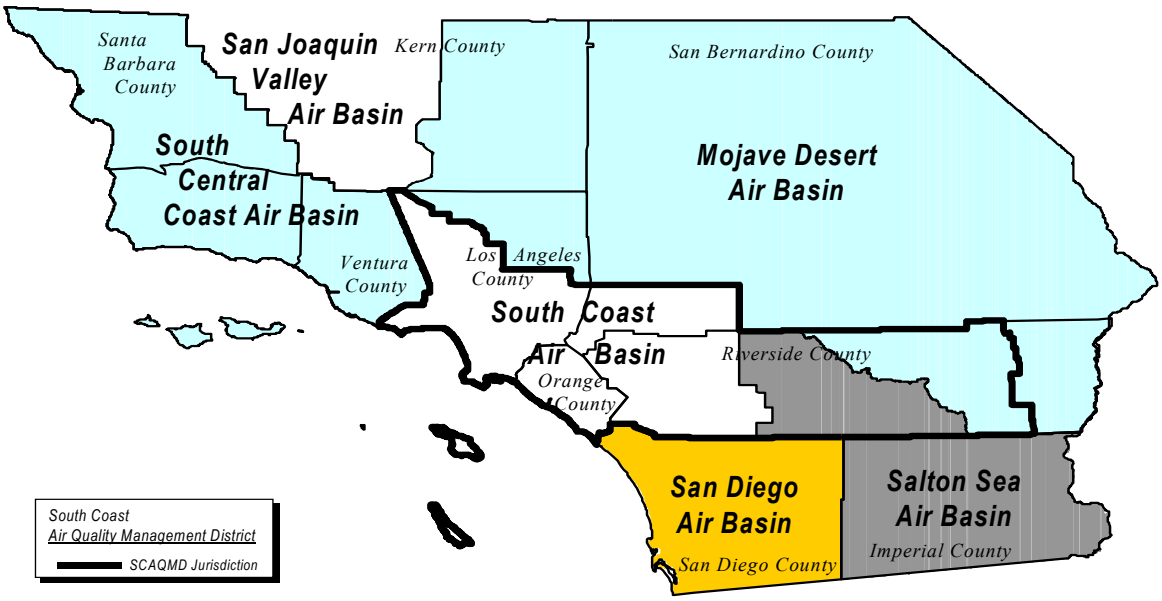

Figure 1-1
South Coast Air Quality Management District

PROJECT BACKGROUND

Rule 1107 was adopted in June 1979 to control VOC emissions from metal coating operations. Specifically, Rule 1107 applies to all metal coatings operations except those performed on aerospace assembly, magnet wire, marine craft, motor vehicle, metal container, and coil coating operations. Rule 1107 sets VOC limits for twenty-two categories of coatings classified as air-dried (cured at temperatures below 194 degrees Fahrenheit (^{o}F)) or baked (cured at temperatures above 194 ^{o}F). Rule 1107 establishes limits for metal coatings in general and includes multiple specialty categories. The broadest of the specialty categories include prefabricated one- and two-component coatings and extreme high-gloss coatings. The remainder of the coating categories encompasses mostly niche operations.

Typical facilities that would be subject to the requirements in Rule 1107 include metal furniture manufacturers, fabricated metal product manufacturers, small and large appliance manufacturers, metal finishers, and the paint and coating manufacturers that supply products to the metal manufacturing shops. The industry sectors that make extensive use of coatings applied to metal parts and products in accordance with Rule 1107 are mainly represented by several North American Industry Classification System (NAICS) codes, as follows:

- 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);
- 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); and,
- Other Miscellaneous Manufacturing (3399).

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

According to the 2007 AQMP, the total VOC emissions inventory for Rule 1107 is 2.82 tons per day. This inventory includes emissions from: 1) small sources required to obtain SCAQMD permits; 2) facilities that report annual emissions as part of the SCAQMD's Annual Emissions Reporting (AER) Program; 3) from other small sources that are not required to obtain SCAQMD permits. Inclusion in the AER Program is limited to larger facilities that emit at least four tons per year of a criteria pollutant (in this case, VOC). While larger facilities represent a significant portion of the overall inventory of Rule 1107, the bulk of the emissions come from a large number of smaller facilities. In the 2006/2007 compliance year, 377 companies reported 1.4 tons of VOC emissions from metal coating operations through the AER program, which is

approximately a 27 percent decrease from the reported emissions for compliance year 2002/2003. However, the VOC emission decrease was primarily (more than 70 percent) attributed to the reduction of VOC content in 'Extreme High Gloss and Prefabricated Architectural Coatings' category which was adopted in a previous amendment to Rule 1107 in November, 2005. The remaining decrease in VOC emissions was attributed to an increased use of low-VOC products in other coating categories. The share of emissions generated by small facilities increased during that time period because of a slight increase in the number of small facilities subject to the requirements in Rule 1107 that relied on older, solvent alkyd technology. After conducting several site visits and examining manufacturer sales data, additional research revealed that the VOC emissions contribution from smaller facilities operating without permits had been previously underestimated.

PROJECT DESCRIPTION

The following is a summary of the key proposed amendments to Rule 1107. Other minor changes are also proposed for clarity and consistency throughout the rule. A copy of the proposed amended rule can be found in Appendix A.

Proposed Amended Rule 1107 – Coating of Metal Parts and Products

Purpose and Applicability - subdivision (a)

The proposed amendments will expand the applicability of Rule 1107 to include metal stripping operations and the sale of metal coatings and metal strippers, and will clarify the exclusion of architectural components.

Definitions - subdivision (b)

The following new definitions are proposed to be added to PAR 1107: "graphic arts coatings," "lacquers," "metal coatings," "person," "stripping," "super-compliant material," "ultraviolet thin-film coating," and, "waterborne coating." In addition, the following definitions are proposed to be revised: "extreme high-gloss coating," "extreme-performance coating," "prefabricated architectural component coatings," "reactive diluents," "repair coating," and "touch-up coating."

Requirements - subdivision (c)

New subparagraph (c)(1)(H) has been added to allow an alternative type of application equipment limited to specified coatings, subject to prior SCAQMD written approval, provided that a demonstration can be made that the use of high-volume, low-pressure (HVLP) spray equipment would result in greater emissions than the alternative method.

Subparagraph (c)(2)(A) has been modified to make the VOC limit requirements for the various coating categories listed in Table 1 effective until December 31, 2014. Also, Rule 1107 Table 1 has been clarified to explain that lacquers are currently covered by either the general one-component or general multi-component coating categories. Lastly, two coating categories (e.g., high-temperature and graphic arts) and corresponding VOC limits have been added to Rule 1107 Table 1.

New subparagraph (c)(2)(B) with corresponding new Table 2 has been added to reflect revised VOC limits and revised coating categories with different two-tier effective dates of January 1, 2015 and January 1, 2018 applying to the general coating category and to the general waterborne coating category.

New paragraph (c)(3) has been added to allow tertiary-butyl acetate (t-BAc) and dimethyl carbonate (DMC) to be considered as exempt compounds, effective November 2, 2012, when determining compliance with the VOC content requirements in Rule 1107 Table 1 and Table 2, provided that several conditions are met, as follows:

- The coating activity is done in an SCAQMD-permitted spray booth or other SCAQMD-permitted fully enclosed spray area with an exhaust fan discharging exhaust air outside of the building, operating in accordance with all permit conditions;
- The facility either files a plan with the SCAQMD for t-BAc usage less than 560 pounds per year and for DMC usage less than 180,000 pounds per year per subparagraph (c)(3)(B), or, the facility applies for a permit modification for t-BAc usage greater than or equal to 560 pounds per year or for DMC usage greater than or equal to 180,000 pounds per year, per subparagraph (c)(3)(A), provided that: 1) the increase in maximum individual cancer risk (MICR) is less than 10 in one million at any off-site receptor location; 2) the cumulative increase in total chronic hazard index (HI) for any target organ system is less than or equal to 1.0 at any off-site receptor location; 3) the cumulative increase in total acute HI for any target organ system is less than 1.0 at any off-site receptor location; and, 4) the calculation to determine MICR follow the Risk Assessment Procedures for Rule 1401 and Rule 212 according to the designated inputs for inhalation cancer potency factor and acute reference exposure limit (REL) for t-BAc and the acute REL and chronic REL for DMC, as applicable.
- Daily records of DMC and t-BAc use are maintained.

New paragraph (c)(7) has been added to require VOC containing coatings to be stored in non-absorbent, non-leaking containers that are kept closed at all times except when in use.

Prohibition of Specifications and Sale - subdivision (d)
Substantial revisions are proposed that include the following new paragraphs:

New paragraph (d)(1) has been added to restrict the supply, sale, distribution, and specification of any metal coating that contains VOC in excess of the limits in Rule 1107.

New paragraph (d)(2) has been added to restrict the supply, sale, distribution, and specification of any metal coating that contains DMC or t-BAc prior to obtaining a compliance verification from the purchaser.

New paragraph (d)(3) has been added to prohibit, effective January 1, 2014, the supply, sell, offer for sale, specification or application of any metal coating or stripper that contains in excess of 0.1 percent by weight of any Group II exempt compounds listed in SCAQMD Rule 102 – Definition of Terms.

New paragraph (d)(4) has been added to clarify that the requirements proposed in new paragraphs (d)(1), (d)(2) and (d)(3) do not apply to: 1) metal coatings for use outside of the district; 2) metal coatings used at a facility with certified air pollution control equipment; 3) sellers of metal coatings that do not comply with the VOC content requirements in Rule 1107 provided that the coating is sold to an independent distributor or another manufacturer for repackaging and that the seller provides written notification that explains the metal coating is not for use within the SCAQMD and that the metal coating does not comply with the VOC content

requirements in Rule 1107; 4) any metal coating that is labeled and compliant for use on metal surfaces subject to another SCAQMD Regulation XI – Source Specific Standards rule for coatings or if the coating is labeled and compliant for use on multiple substrates; 5) any metal coating that is labeled as an architectural coating that complies with the requirements in SCAQMD Rule 1113 – Architectural Coatings; and, 6) any metal coating that is sold to a purchaser who agrees in writing to comply with all applicable SCAQMD rules.

Methods of Analysis - subdivision (e)

New paragraph (e)(7) has been added to clarify the method for determining metal coating viscosity.

New paragraph (e)(8) has been added to clarify the method for determining metal coating gloss.

Exemptions - subdivision (f)

Subdivision (f) has been revised to clarify that the prohibition of sale as described in paragraph (d)(1) is not applicable to existing exemptions as described in paragraphs (f)(1), (f)(2), (f)(3), (f)(4), (f)(5), (f)(6), and (f)(7).

In addition, subdivision (f) has been further revised to clarify that the prohibition of sale as described in paragraphs (d)(1) and (d)(2) are not applicable to existing exemptions as described in paragraphs (f)(3), (f)(4), and (f)(5).

Paragraph (f)(2) has been revised to remove obsolete language that pertained to an exemption that is no longer in effect as of July 1, 2006.

Paragraph (f)(3) has been revised to clarify that the requirements in paragraphs (d)(1) and (d)(2) do not apply to coatings and cleaning solvents used for conducting performance tests on coatings at paint manufacturing facilities.

Old paragraph (f)(4), which originally provided for an exemption for high performance architectural, vacuum metalizing and/or pretreatment coatings, has been deleted.

Renumbered paragraph (f)(4) has been revised to clarify that the requirements in paragraphs (c)(1), (d)(1), and (d)(2) do not apply to aerosol coating products.

Renumbered paragraph (f)(5) has been revised to clarify the requirements in paragraphs (c)(3), (d)(1), (d)(2), and (j)(1) do not apply to the essential public service coatings provided that the VOC content is equal to or less than 500 grams per liter.

Renumbered paragraph (f)(7) has been revised to clarify the requirements in paragraph (d)(1) do not apply to certain photoresist operations.

Old paragraph (f)(8), which originally provided for an exemption for electrocoatings, has been deleted.

New paragraph (f)(8) has been added to exempt metal coatings with a viscosity of 650 centipoise or greater, as applied, from the VOC content requirements in paragraph (c)(1).

New paragraph (f)(9) has been added to exempt super compliant materials from the recordkeeping and reporting requirements in paragraph (j)(1) provided that each affected facility can demonstrate, via annual purchase records, that the total permitted and non-permitted VOC emissions at the facility do not exceed four tons in any calendar year, including emissions from super compliant materials.

Qualification for Classification as Extreme-Performance Coating - subdivision (i)
Subdivision (i) has been revised to clarify the required information needed in order to request a classification for an extreme performance coating.

Recordkeeping and Reporting - subdivision (j)
New paragraph (j)(2) has been added to require users of DMC or t-BAc to maintain daily records and to retain these records for the most recent two year period, unless a longer time period is otherwise specified by an applicable rule or permit condition. In addition, the records shall include a list of permit units involved with the use of DMC or t-BAc, the amount and type of coating and/or solvent used, and the content of DMC and t-BAc in each coating or solvent as applied.

New paragraph (j)(3) has been added to require users of a coating or solvent containing t-BAc to submit an annual report within 90 days after the end of the reporting year.

Sell-Through and Use-Through Provision - subdivision (l)
New subdivision (l) has been added to allow non-compliant coatings manufactured prior to the effective date of the applicable limit to be sold, supplied, offered for sale, or applied for up to 12 months after the specified effective date.

Filing Process - subdivision (m)
New subdivision (m) has been added to establish filing requirements for users of DMC and t-BAc containing coatings and solvent.

Fees - subdivision (n)
New subdivision (n) has been added to establish a one-time fee requirement equivalent to the plan submittal fee in accordance with the requirements in subdivision (c) of SCAQMD Rule 306 – Plan Fees.

TECHNOLOGY OVERVIEW

Metal coatings serve both decorative and functional purposes, such as providing some level of protection from impact, abrasion, and corrosion. Metal coatings may also be required 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 such as 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.

Decorative coatings are applied to metal parts and products that will not be continually exposed to chemicals, high impact, high abrasion, ultraviolet (UV) light from sunlight, submersion, seaside or oceanic conditions. Decorative coatings are meant for light duty purposes and are applied to common household items such as coat hangers, picture frames, medicine cabinets,

interior light fixtures, or for any environmental setting that is controlled by temperature, light, humidity, and excessive human contact. Formulations of decorative coatings are typically single component coatings that need to be air-dried or cured by evaporation or coalescence such as acrylics, alkyds, polyurethanes and copolymer polyurethanes.

However, formulations of decorative coatings that need to be "bake cured" or heat treated such as some epoxies and polyurethanes are also available. These formulations need heat to reduce the potential for the coating to fail or crack because the heat triggers a chemical reaction that results in increased strength of the chemical bonds through cross-linking. Epoxies are known for their resistance to submersion and chemical attack, while polyurethanes have excellent longevity to UV light degradation, high impact resistance, film flexibility, and scratch resistance.

Functional coatings, unlike decorative coatings, must be able to withstand some degree of resistance from exposure to chemicals, UV light and sunlight, submersion, salt air and other outdoor weather environments, abrasion, and exposure to frequent human contact such as a restaurant table, office furniture, or door handle. Typical functional coating finishes consist of a basecoat which includes sealers and primers, a midcoat or undercoat, a finish color-coat and a clear top coat. Functional coating applications are typically comprised of two-component chemically reactive coatings, such as epoxies and polyurethanes, because the cross-linked bonds offer a greater degree of protection from the elements.

There are several methods for applying coatings to metal parts and products such as electrostatic application, flow coat, dip coat, roll coat, HVLP, hand application or some other method with an equivalent transfer efficiency to HVLP technology. Regardless of the type of metal coating and the coating application method, the coatings need to be cured in order to achieve the desired finish. The curing process occurs through one of the following four methods: 1) air drying at ambient conditions; 2) low heat force curing (e.g., at a temperature below 194 ºF); 3) high heat baking (e.g., at a temperature above 194 ºF); or, 4) UV curing (e.g., exposing the object to UV light).

Air-dried coatings are single-component types that dry through evaporation of the solvent or coalescence of the coating molecules upon evaporation of the solvent. Air-dried coatings will also contain the class of multi-component coatings that cure by chemical reaction. Air-dried coatings are available in both waterborne and solvent-based formulations and are mostly used in decorative applications. Coatings that need to be force-cured with heat are typically multi-component systems that cure by chemical reaction to achieve cross-linked bonds. Heat-cured coatings are available in two types: thermosetting and thermoplastic. The key difference between the two types is that thermosetting coatings cure by heat-initiated cross-linking and thermoplastic coatings do not. UV coatings are coatings that also undergo a chemical reaction to achieve cross-linked bonds, but in the presence of UV light without heat.

Status of Metal Coatings

The types of metal coatings that are subject to the requirements in Rule 1107 are divided into four groups: 1) high solids; 2) waterborne/solvent-based; 3) powder; and, 4) ultraviolet (UV). The following discussion addresses each coating group and its availability and use within the metal coating industry. Analysis regarding the effect the proposed rule amendments will have on emissions from these coatings is discussed in Chapter 2.

High Solids Coatings

Coatings are considered to be 'high solids' coatings when the solids content is greater than 60 percent by volume. High solids coatings are comprised of polymers that generally have low molecular weights and require less solvent to achieve the desired viscosity. High solids coatings are used in some functional coating applications but are not widely used or appropriate for decorative applications because they are viscous and need to be applied in higher film builds or thicknesses (e.g., from 2 to 6 mils or more); most general use metal parts and products do not need high film builds. Further, because of the high viscosity, in order to make it easier to spray high solids coatings, in-line pre-heaters may be used to reduce the viscosity and promote better leveling. Special attention must be given when pre-heaters are used, because the addition of heat could cause premature solvent evaporation.

In general, high solids coatings are single-component systems that are force cured with heat or multi-component systems that are air-dried at ambient conditions. Single-component systems are typically comprised of acrylic, polyester and alkyd systems while multi-component systems have two or more compounds, such as resins and catalysts, that are mixed together at the time of application. The mixing of the multiple parts immediately starts a chemical reaction that causes the molecules to cross-link and eventually a finished coating is formed. As a result, the operator has a limited amount of time to apply the mixture before chemical cross-linking makes it unusable. Polyurethane coatings display the best outdoor characteristics for a general or high-gloss coating. Epoxies have great chemical resistance, but chalk in an outdoor environment; however, they make excellent primers or midcoats, followed by a urethane topcoat.

Waterborne and Solvent-based Coatings

As their names suggest, waterborne coatings are mostly water and solvent-based coatings contain hydrocarbon solvents with minimal or no water. However, waterborne coatings also contain small amounts of organic solvents as additives or co-solvents. Even so, waterborne technologies contain less VOCs than the otherwise equivalent solvent-based products.

Waterborne coatings are available in either water-dispersible or water-soluble formulations. Water-dispersible formulations are either colloidal suspensions that involve a solid and a liquid dispersed into one another such as polyurethanes or emulsions of two immiscible liquids with one liquid being dispersed as finite globules in the other such as acrylic-, vinyl-, or silicone-based resins. Water-soluble formulations are soluble in water and are typical of epoxy esters and water reducible alkyds.

Waterborne coating formulations of resins are commercially available and vary by component system categories (e.g., single- and multi-component systems). There is a large variety of waterborne coating formulations such as acrylics, alkyds, epoxies, phenolics, polyamides, polyurethanes and polyesters. In general, most waterborne coatings are formulated as single-component systems that are air-dried. Some waterborne coatings are available in multi-component formulations that require heat treating or baking to cross-link the finish coat into a thicker, stronger and more durable surface.

Some solvent-based coatings contain solvents that are exempted as VOCs. For example, some polyurethane resin systems for general use and extreme high-gloss applications contain acetone and parachlorobenzotrifluoride (PCBTF) which are defined in SCAQMD Rule 102 – Definition of Terms as a 'Group I exempt compound' (i.e., not a VOC). Some zinc primers, epoxies and UV light resistant urethane topcoats used in the automotive refinishing and architectural coatings

markets are formulated with PCBTF to achieve high gloss and strong performance. Lastly, some formulations designed for the trash and roll-off bin market contain acetone specifically to help dissolve residual oil after pressure washing.

T-BAc, while not an exempt compound in Rule 102, is a chemical with similar performance characteristics to PCBTF. The metal coatings industry has indicated that new, low VOC formulations of compliant metal coatings could be reformulated with t-BAc for some coatings applications. Also for some applications, t-BAc may be used as a "drop-in" solvent substitute for more reactive components such as toluene and xylene, which are currently used in alkyd formulations of currently compliant metal coating products. Because t-BAc could be a drop-in replacement, its use could increase industry-wide and therefore, could introduce new or different risks to onsite workers.

DMC is another chemical that, while not an exempt compound in Rule 102, may be used as a paint, sealant and adhesive co-solvent, and may provide use as a multipurpose and thinning solvent. Because of its solubility properties, DMC may be useful as a co-solvent in acrylics, urethane and alkyd systems, and to potentially replace alcohols, ketones, esters and glycol ethers. DMC may also be used as a specialty solvent in industrial coating/sealant applications and may be incorporated in waterborne coatings and adhesives because of its partial miscibility in water. Similar to t-BAc, DMC could also be a drop-in replacement which could cause its use to increase industry-wide and therefore, could introduce new or different risks to onsite workers.

Powder Coatings

Powder coatings consist of 100 percent dry solids from resins that are dried and ground into a fine[6] powder. When compared to low-solids liquid coatings that can be applied at ultra thin thicknesses (e.g., less than one mil), the powder coatings can be applied from one mil to 40 mils in thickness. Once the powder coating is applied, the item is baked so that cross-linking can occur. VOCs are released during the baking process and typically range between 0.5 percent and three percent, by weight.

There are two main categories of powder coating formulations: 1) thermoplastics; and, 2) thermosets. Thermoplastic powders are functional coatings that are capable of achieving a specific mil thickness and are applied with electrostatic fluidized bed technology to objects that have been preheated so that the coating immediately fuses to the metal substrate. Thermoplastic powders typically have high molecular weights and are available in polyethylene, polypropylene, nylon, polyvinyl chloride or polyester formulations.

Thermoset powders are decorative coatings that are only able to achieve a limited thickness ranging from one mil to three mils when applied with an electrostatic spray gun. Epoxy resin, polyester, and acrylic powder coatings are the most commonly used thermosetting powders. Epoxy resin thermoset powders work well for interior applications such as shelving, bathroom fixtures, office and kitchen furniture, business machines, and home appliances, but are not meant for outdoor applications because they become chalky when exposed to UV light from sunlight. Improved endurance when exposed to UV light can be achieved when epoxy resin thermoset powders are coupled with polyester or acrylic resin to form hybrid powders.

[6] The mean particulate size ranges between 25 and 40 microns in diameter.

Acrylic thermoset powder coatings are more durable while having all the benefits of liquid coatings (e.g., gloss, hardness, flexibility, et cetera). As such, they are better suited for exterior applications such as tractors, appliance exteriors, and aluminum extrusions. Polyester and polyester triglycidyl isocyanurate (TGIC) powder coatings also have many exterior applications including but not limited to aluminum and steel wheels and outdoor furniture.

Powder coating systems utilize a conveyorized powder line comprised of multiple components including a five-to-seven stage power washer, dry-off oven, spray booth with dust collection system, bake oven, conveyor line, and process controls. The dust collection system utilizes pleated cartridge technology and when used in conjunction with a spray booth, is capable of capturing nearly all of the coating overspray - especially when designed for downdraft or gravity feed configurations. These dust collection systems are self-purging in that they utilize reverse air pulse technology to keep the filters operating at maximum efficiency. Exhaust is not vented outside the building, but rather is returned or recycled inside the building via a high efficiency particulate arrestor (HEPA) filter. Multiple colors of powder coatings require the need for more spray booths and dust collector units. Some systems come with plastic sheeting roll-up walls, which provide a new work environment relatively quickly but does not address booth change-outs for custom colors.

Despite the benefits, powder coating lines are not ideal for all situations. For example, electrostatic attraction, the method by which powder coatings are applied, is not appropriate for all configurations of items to be coated. For example, sharp corners repel charged coating particles and leave small unpainted lines referred to as Faraday cages. In these cases, spray gun technology can reduce this effect, but do not entirely eliminate the problem. Another unsuitable operation for a powder coating system would be thin sheet metal applications because the high cure temperature necessary for cross-linking to occur in powder processes would deform the thin sheets and make the product unusable. Lastly, since powder coating lines require substantially more physical space than liquid coating lines, not all facilities have enough available space to accommodate the size of one or more powder coating lines. This problem is amplified for any facility that offers products in multiple colors, since multiple coating lines would be required.

UV Coatings

Ultraviolet (UV) curable coatings are part of the acrylate chemical family; either as epoxy, urethane, or polyester acrylates and consist of monomers, oligomers, photoinitiators and other additives. Photoinitiators are a crucial part of the curing process because when exposed to UV light, free radicals are generated that react with the double bonds and cause a chain reaction that polymerizes or achieves a cross-linked coating finish.

UV curable coatings are available in both liquid and powder form. Liquid UV curable coatings are also utilized in clear tubing or conduit finishing, and clear finishes for door hardware and plumbing fixtures. Powder UV coatings are similar to traditional powder coatings except that they are heated first and then exposed to UV light to initiate rapid curing. Another difference is that the melting temperature is lower for UV powder coatings at approximately 120 degrees Celsius when compared to traditional powder coatings with a melting temperature at 200 degrees Celsius.

Overview of Current Regulatory Requirements

There are three levels of regulatory control requirements that apply to VOCs from the metal coating industry, including the requirements proposed in PAR 1107: 1) local (e.g., SCAQMD);

2) state (e.g., CARB); and, 3) federal requirements (e.g., EPA). The SCAQMD's local efforts to specifically regulate sources of VOCs from this industry have been based partly on implementing measures already adopted by EPA and CARB. The following is an overview of the SCAQMD rules that have been adopted to implement federal, state, or SCAQMD VOC reduction programs. In addition, because some VOCs are also considered to be sources of air toxics or TACs, the following overview also discusses TAC requirements that are also applicable to the metal coatings industry.

SCAQMD Requirements – Air Toxics Concerns

There are several coatings currently used by the metal coating industry formulated with TACs including but not limited to the following: cobalt compounds, ethylbenzene, formaldehyde, methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), toluene, triethylamine, xylene, and zinc oxide. The use of materials that contain toxic compounds is of particular concern to the SCAQMD and other agencies such as EPA, CARB, the Occupational Safety and Health Administration (OSHA), and the Office of Environmental Health Hazard Assessment (OEHHA) (which is part of the California Environmental Protection Agency (Cal/EPA)), because some of the TACs used in the metal coating industry are considered carcinogens (cancer-causing) such as formaldehyde while others may have other non-cancer health effects[7]. For these reasons, there are two local rules that regulate TAC emissions that may apply to metal coating facilities: Rule 1401 – New Source Review of Toxic Air Contaminants, and Rule 1402 – Control of Toxic Air Contaminants From Existing Sources. Rule 1401 applies to new and modified facilities, including metal coating facilities, and Rule 1402 applies to facility-wide risk at existing facilities. Since the majority of metal coating facilities located within SCAQMD's jurisdiction are existing sources, the requirements in Rule 1402 are the main drivers for reducing overall risk and, therefore, TAC emissions from this industry.

PAR 1107 would include a limited use exemption for t-BAc and DMC. T-BAc is not currently identified in any of SCAQMD's rules as a TAC. T-BAc possesses a low photochemical reactivity as well as some other physical and chemical properties that are considered desirable by its manufacturer's representatives. However, t-BAc may be unsuitable for consideration as a potential replacement for all conventional solvents because of t-BAc's potential toxicity. Specifically, t-BAc has the potential to form a metabolite called tert-butyl alcohol (TBA) which has cancer potency and acute noncarcinogenic values established by OEHHA. According to Acute Toxicity and Cancer Risk Assessment Values for TBA, (Budroe, et al., 2004), "TBAc should be considered to pose a potential cancer risk to humans because of the metabolic conversion to TBA."

The SCAQMD adopted some very carefully crafted, limited use exemptions for t-BAc under SCAQMD Rule 1113 - Architectural Coatings and Rule 1151 - Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations to provide potential compliance flexibility while limiting use of t-BAc because of the potential toxics concerns. These limited use exemptions allow primers used in auto body coating operations and industrial maintenance (IM) coatings used in architectural coating operations to be formulated with t-BAc, which will not be counted as a VOC under these circumstances. These specific applications, for the most part, are

[7] Formaldehyde, toluene, triethylamine, and xylene are classified as having both chronic and acute health effects; ethylbenzene as having chronic health effects and zinc oxide proposed as having chronic health effects; MEK as having acute health effects with future proposed risk value for chronic; and, cobalt compounds as having future proposed risk values. In addition, MIBK is classified by EPA as a HAP, but the toxicology assessment is not finalized.

used in industrial settings where workers applying products formulated with t-BAc are required to wear personal protective equipment such as respirators. In the case of PAR 1107, additional provisions have been included to limit the use of t-BAc and potential exposures to nearby receptors.

DMC is also not currently identified in any of SCAQMD's rules as a TAC. In September 2009, SCAQMD staff proposed to amend Rule 102 by including DMC as a "Group I exempt" compound (e.g., a compound that is not counted as a VOC for regulatory purposes and is not a Group II exempt compound that is known to be toxic or is potentially toxic, etc.). Extensive public comments were made at the SCAQMD's Governing Board meeting expressing concern that DMC may be a developmental toxin that causes birth defects in mice, and by including an exemption in Rule 102, DMC would be used instead of safer substances that do not have the toxic risks (i.e., birth defects). Even though OEHHA staff had completed their assessment of DMC, the assessment had not yet undergone OEHHA management, public, and peer review. For these reasons, the SCAQMD Governing Board voted at the time not to add DMC as a Group I exempt compound in Rule 102.

State Requirements

On December 10, 1992 CARB adopted a Determination of Reasonably Available Control Technology (RACT) for Metal Parts and Products Coating Operations. On March 2, 2001 CARB adopted "Performance Standards for Existing Stationary Sources - A Resource Document." This document contains updated performance standards for various industries and applications that reflect both RACT and BACT standards. One chapter is specifically dedicated to the category of "Metal Parts and Products Coatings (Non-Architectural)" which contains performance standards that are mostly aligned with the current requirements in Rule 1107 such as VOC content limits for various categories of metal coatings and transfer efficiency and control efficiency requirements.

In addition to CARB's industry-specific requirements, the Air Toxics "Hot Spots" Information and Assessment Act was enacted in September 1987 by the California State Assembly as Assembly Bill 2588 (hereafter referred to as the AB2588 program)[8]. Under this act, certain stationary sources are required to report the types and quantities of specified substances, including chemicals used in metal coatings, such as carbon black, cobalt compounds, ethylbenzene, formaldehyde, MEK, MIBK, toluene, triethylamine, 1,2,4-trimethylbenzene, xylene, and zinc oxide, released into the air. Emissions of interest are those that result from the routine operation of a facility or are predictable, including but not limited to continuous and intermittent releases and process upsets or leaks. The goals of AB2588 are to collect emission data, to identify facilities having localized impacts, to ascertain health risks, and to notify nearby residents of significant risks. Of the 2,330 metal coating facilities subject to Rule 1107, only 16 are currently in the AB2588 program.

In 1986, California voters approved an initiative to address their growing concerns about exposure to toxic chemicals. That initiative became the Safe Drinking Water and Toxic Enforcement Act of 1986, better known by its original name of Proposition 65. Proposition 65 requires California to publish a list of chemicals known to cause cancer or birth defects or other

[8] Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly), http://www.arb.ca.gov/ab2588/ab2588.htm.

reproductive harm. This list, which must be updated at least once a year, has grown to include approximately 800 chemicals since it was first published in 1987[9].

OEHHA administers the Proposition 65 program and evaluates all currently available scientific information on substances considered for placement on the Proposition 65 list. Proposition 65 requires businesses to notify Californians about significant amounts of chemicals in the products they purchase, in their homes or workplaces, or that are released into the environment. Carbon black, cobalt compounds, ethylbenzene, formaldehyde, MIBK, and toluene are typical chemicals used in metal coatings and these chemicals are included on the Proposition 65 list. T-BAc and DMC are not on the Proposition 65 list.

DMC is not classified as an ozone depleting substance and has a very short atmospheric lifetime. There is, however, a study showing evidence of teratogenic effects in pregnant mice. No exposure guidelines have been established for DMC by OSHA and CARB has not yet conducted an assessment of the health effects of exposure to DMC. However, in a recent OEHHA memorandum, OEHHA staff summarized available data on the toxicity of DMC and its metabolites and relied on reference levels established for methanol, a DMC metabolite, to develop acute and chronic screening levels[10]. Data from a distributor of DMC indicate that dimethyl carbonate is primarily metabolized in the body by de-esterification or hydrolysis by carboxyl esterase enzymes to produce methanol and carbon dioxide. In addition, on March 16, 2012, OEHHA added *methanol* to the Proposition 65 list of chemicals known to cause reproductive toxicity.

Federal Requirements

The federal Clean Air Act (CAA) establishes requirements to regulate emissions of air pollutants to protect human health and the environment. In addition to regulating criteria pollutants, the CAA requires the EPA to regulate hazardous air pollutants (HAPs[11]) that have been found to adversely affect human health. The following HAPs that are regulated by EPA are found in metal coating formulations: cobalt compounds, ethylbenzene, formaldehyde, MEK, MIBK, toluene, triethylamine, and xylene. Federal regulations in the CAA include the New Source Performance Standards (NSPS) under §111 and the National Emissions Standards for Hazardous Air Pollutants (NESHAPs) under §112. The EPA periodically promulgates NSPS standards in the Code of Federal Regulations (CFR), Chapter 40, Part 60 (40 CFR Part 60) and NESHAPs in 40 CFR Parts 61 and 63. The SCAQMD has been delegated authority by EPA to implement and enforce both NSPS and NESHAP requirements. The requirements in 40 CFR Parts 60 and 61 were adopted by reference in SCAQMD Regulations IX and X respectively. For the metal coatings industry, there is currently no applicable NSPS standard. However, there are several NESHAPs applicable to metal coatings as follows:

- NESHAP for Surface Coating of Miscellaneous Metal Parts and Products[12] sets standards for major sources of HAPs (e.g., sources with a potential to emit 10 tons per year of a

[9] Proposition 65 List of Chemicals, http://oehha.ca.gov/prop65/prop65_list/files/P65single031612.pdf

[10] Screening Values for Dimethyl Chloride Memorandum from Melanie A. Marty, Ph.D, Chief of the Air Toxicology and Epidemiology Branch, OEHHA to Linda Murchison, Chief of Planning and Technical Support Division, CARB, February 16, 2012.

[11] TACs and HAPs are used interchangeably throughout this document.

[12] On January 2, 2004, EPA initially promulgated the Surface Coating of Miscellaneous Metal Parts and Coatings NESHAP in Title 40 of Code of Federal Regulations (CFR), Chapter I, Subchapter C, Part 63, Subpart MMMM (40 CFR 63, Subpart MMMM; 69 FR 130; http://www.epa.gov/ttn/atw/misc/fr02ja04.pdf). On April 26, 2004, EPA amended Subpart MMMM (40 CFR 63, Subpart MMMM; 69 FR 22602) to clarify the interaction between it and the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII; http://www.epa.gov/ttn/atw/auto/fr26ap04r.pdf).

single HAP or 25 tons per year of a combination of HAPs) from the metal coatings industry by establishing limits of 0.31 kg organic HAP per liter of solids (2.6 lb/gal) for general existing operations and 0.23 kg organic HAP per liter of solids (1.9 lb/gal) for new operations. Other limits are included for specialty categories including High Performance (3.3 kg/L), Magnet Wire (0.12 kg/L), Rubber-to-Metal (4.5 kg/L) and Extreme Performance Fluorpolymer (1.5 kg/L).

- NESHAP for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources[13] which requires methods to reduce or eliminate methylene chloride stripper usage, requires proper storage and disposal, optimizes application conditions, reduces exposure and requires additional recordkeeping.

- NESHAP for Area Source Standards for Nine Metal Fabrication and Finishing Source Categories[14] requires the control of particulates from applicable area source metal coating operations by 98 percent in a paint spray booth with dry filters or water curtain. HVLP spray equipment or others as approved by AQMD are required to improve transfer efficiency. Finally, painters are required to complete training that addresses paint selection, mixing and application to minimize emissions

- NESHAP for Surface Coating of Metal Furniture[15] establishes a standard of 0.1 kg organic HAP per liter of solids (0.83 lb/gal) of metal coating for new and reconstructed sources and includes recordkeeping provisions.

The VOCs and HAPs used in the metal coatings industry are also addressed in other federal legislation including but not limited to:

- Occupational Safety and Health Act (OSHA);
- Toxic Substances Control Act (TSCA);
- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA);
- Title III of the Superfund Amendments and Reauthorization Act (SARA); and,
- Resource Conservation and Recovery Act (RCRA).

In addition, there are three other federal documents, referred to as Control Technique Guidelines (CTG), that are specifically related to metal coating operations, as follows:

- CTG for Control of Volatile Organic Compound Emissions from Miscellaneous Metal and Plastic Parts Coatings[16], contains baseline VOC content limits as RACT for metal coatings.

[13] On January 9, 2008, EPA promulgated the Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources NESHAP in Title 40 of Code of Federal Regulations (CFR), Chapter I, Subchapter C, Part 63, Subpart HHHHHH (40 CFR 63, Subpart HHHHHH; 73 FR 1738; http://www.epa.gov/ttn/atw/area/fr09ja08.pdf).

[14] On July 23, 2008, EPA promulgated the Area Source Standards for Nine Metal Fabrication and Finishing Source Categories NESHAP in Title 40 of Code of Federal Regulations (CFR), Chapter I, Subchapter C, Part 63, Subpart XXXXXX (40 CFR 63, Subpart XXXXXX; 73 FR 42978; http://www.epa.gov/ttn/atw/area/fr23jy08.pdf).

[15] On May 23, 2004, EPA initially promulgated the Metal Furniture Surface Coating NESHAP in Title 40 of Code of Federal Regulations (CFR), Chapter I, Subchapter C, Part 63, Subpart RRRR (40 CFR 63, Subpart RRRR; 68 FR 28605; http://www.epa.gov/ttn/atw/mfurn/fr23my03.pdf).

[16] Control Technique Guidelines for Control of Volatile Organic Compound Emissions from Miscellaneous Metal and Plastic Parts Coatings (EPA-453/R-08-003); September 2008; http://www.epa.gov/ttn/caaa/t1/ctg/miscmetal_ctg093008.pdf.

- CTG for Metal Furniture Coatings[17] recommends VOC content limits similar to those contained in the current version of Rule 1107 and includes options for averaging and the use control devices. This CTG requires the use of HVLP or equivalent spray gun use to improve transfer efficiency and includes work practice requirements for the storage and use of metal coatings and solvents.

- CTG for Large Appliance Coatings[18] is nearly identical to the CTG for Metal Furniture Coatings except that it does not contain provisions for high transfer efficiency spray equipment.

EPA maintains a human health assessment program, the Integrated Risk Information System (IRIS), which evaluates information on health effects that may result from exposure to environmental contaminants. Through the IRIS Program, EPA provides science-based human health assessments to support the EPA's regulatory activities. The IRIS database contains information on more than 550 chemical substances, including ethylbenzene, MEK, MIBK, toluene, triethylamine, and xylene[19]. T-BAc and DMC are not listed in the IRIS database.

T-BAc has been delisted as a VOC by the EPA[20], but it has not been delisted as a VOC by CARB or the SCAQMD. When delisting a compound from the definition of VOC, EPA only considers reactivity and does not address whether the compound is toxic or has global warming of stratospheric ozone depleting potential. T-BAc is not currently classified as a hazardous air pollutant under the federal Clean Air Act.

EPA revised the federal VOC definition to exclude DMC based on its negligible photochemical reactivity[21]. DMC is also currently not identified as a HAP under the federal Clean Air Act nor is it classified as an ozone depleting substance. No exposure guidelines have been established for DMC by the American Conference of Governmental Industrial Hygienists (ACGIH), or by the National Institute for Occupational Safety and Health (NIOSH).

ALTERNATIVES

The Draft EA will discuss and compare alternatives to the proposed project as required by CEQA and by SCAQMD Rule 110 where there are potential significant adverse environmental impacts. Alternatives must include realistic measures for attaining the basic objectives of the proposed project and provide a means for evaluating the comparative merits of each alternative. In addition, the range of alternatives must be sufficient to permit a reasoned choice and it need not include every conceivable project alternative. The key issue is whether the selection and discussion of alternatives fosters informed decision making and public participation. A CEQA

[17] Control Technique Guidelines for Metal Furniture Coatings (EPA 453/R-07-005); September 2007; http://www.dep.state.pa.us/dep/deputate/airwaste/aq/attain/ctgs/final_metal_furniture_ctg.pdf

[18] Control Technique Guidelines for Large Appliance Coatings (EPA 453/R-07-004); September 2007; http://www.dep.state.pa.us/dep/deputate/airwaste/aq/attain/ctgs/final_large_app_ctg.pdf

[19] EPA's Integrated Risk Information System (IRIS), http://cfpub.epa.gov/ncea/iris/index.cfm?fuseaction=iris.showSubstanceList&list_type=alpha&view=all

[20] Revision to Definition of Volatile Organic Compounds – Exclusion of t-Butyl Acetate, Environmental Protection Agency, 40 CFR Part 51, Federal Register 69298, November 29, 2004. (http://www.gpo.gov/fdsys/pkg/FR-2004-11-29/pdf/04-26069.pdf)

[21] Air Quality: Revision to Definition of Volatile Organic Compounds- Exclusion of Propylene Carbonate and Dimethyl Carbonate, Environmental Protection Agency, 40 CFR Part 51, Federal Register 3437, January 21, 2009. (http://www.gpo.gov/fdsys/pkg/FR-2009-01-21/pdf/E9-1150.pdf)

document need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.

SCAQMD Rule 110 does not impose any greater requirements for a discussion of project alternatives in an environmental assessment than is required for an Environmental Impact Report under CEQA. Alternatives will be developed based in part on the major components of the proposed rule. The rationale for selecting alternatives rests on CEQA's requirement to present "realistic" alternatives; that is alternatives that can actually be implemented. CEQA also requires an evaluation of a "No Project Alternative."

SCAQMD's policy document Environmental Justice Program Enhancements for fiscal year (FY) 2002-03, Enhancement II-1 recommends that all SCAQMD CEQA assessments include a feasible project alternative with the lowest air toxics emissions. In other words, for any major equipment or process type under the scope of the proposed project that creates a significant environmental impact, at least one alternative, where feasible, shall be considered from a "least harmful" perspective with regard to hazardous air emissions.

The Governing Board may choose to adopt any portion or all of any alternative presented in the EA with appropriate findings as required by CEQA. The Governing Board is able to adopt any portion or all of any of the alternatives presented because the impacts of each alternative will be fully disclosed to the public and the public will have the opportunity to comment on the alternatives and impacts generated by each alternative.

Written suggestions on potential project alternatives received during the comment period for the Initial Study will be considered when preparing the Draft EA.

CHAPTER 2 - ENVIRONMENTAL CHECKLIST

Introduction

General Information

Potentially Significant Impact Areas

Determination

Environmental Checklist and Discussion

INTRODUCTION

The environmental checklist provides a standard evaluation tool to identify a project's adverse environmental impacts. This checklist identifies and evaluates potential adverse environmental impacts that may be created by adopting the proposed amendments to Rule 1107.

GENERAL INFORMATION

Project Title:	Proposed Amended Rule 1107 – Coating of Metal Parts and Products
Lead Agency Name:	South Coast Air Quality Management District
Lead Agency Address:	21865 Copley Drive, Diamond Bar, CA 91765
CEQA Contact Person:	Barbara Radlein, (909) 396-2716
PAR 1107 Contact Person:	Michael Morris, (909) 396-3282
Project Sponsor's Name:	South Coast Air Quality Management District
Project Sponsor's Address:	21865 Copley Drive, Diamond Bar, CA 91765
General Plan Designation:	Not applicable
Zoning:	Not applicable
Description of Project:	The purpose of PAR 1107 is to update requirements to reflect technological improvements in the coatings industry. PAR 1107 would reduce emissions of VOC from metal coatings by: 1) amending VOC limits for certain coating categories and establishing new coating categories with new VOC content limits; 2) expanding the applicability to include certain metal stripping operations; 3) modifying the definition of and requirements for extreme-performance coatings; 4) allowing limited use of coatings containing tertiary-butyl acetate (t-BAc) and dimethyl carbonate (DMC); 5) including a prohibition of sales for metal coatings that exceed applicable VOC content limits; 6) prohibiting the use of Group II exempt solvents in metal coatings or strippers; 7) removing or limiting existing exemptions; 8) including streamlined recordkeeping options for super-compliant coatings; and, 9) including additional administrative requirements and corrections to clarify rule language and remove obsolete provisions. Other minor changes are proposed for clarity and consistency throughout the rule. The Initial Study identifies the topics of air quality and hazards and hazardous materials, as areas that may be adversely affected by the proposed project. Impacts to these environmental areas will be further analyzed in the Draft EA.
Surrounding Land Uses and Setting:	Residential, but primarily commercial, industrial and/or institutional
Other Public Agencies Whose Approval is Required:	Not applicable

POTENTIALLY SIGNIFICANT IMPACT AREAS

The following environmental impact areas have been assessed to determine their potential to be affected by the proposed project. Any checked items represent areas that may be adversely affected by the proposed project. An explanation relative to the determination of impacts can be found following the checklist for each area.

☐	Aesthetics	☐	Geology and Soils	☐	Population and Housing
☐	Agriculture and Forestry Resources	☑	Hazards and Hazardous Materials	☐	Public Services
☑	Air Quality and Greenhouse Gas Emissions	☐	Hydrology and Water Quality	☐	Recreation
☐	Biological Resources	☐	Land Use and Planning	☐	Solid/Hazardous Waste
☐	Cultural Resources	☐	Mineral Resources	☐	Transportation/Traffic
☐	Energy	☐	Noise	☑	Mandatory Findings

DETERMINATION
On the basis of this initial evaluation:

☐ I find the proposed project, in accordance with those findings made pursuant to CEQA Guideline §15252, COULD NOT have a significant effect on the environment, and that an ENVIRONMENTAL ASSESSMENT with no significant impacts has been prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will NOT be significant effects in this case because revisions in the project have been made by or agreed to by the project proponent. An ENVIRONMENTAL ASSESSMENT with no significant impacts will be prepared.

☑ I find that the proposed project MAY have a significant effect(s) on the environment, and an ENVIRONMENTAL ASSESSMENT will be prepared.

☐ I find that the proposed project MAY have a "potentially significant impact" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL ASSESSMENT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL ASSESSMENT pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL ASSESSMENT, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Date: June 22, 2012 **Signature:** Steve Smith

Steve Smith, Ph.D.
Program Supervisor, CEQA Section
Planning, Rules, and Area Sources

ENVIRONMENTAL CHECKLIST AND DISCUSSION

As discussed in Chapter 1, the main focus of PAR 1107 is to reduce VOC emissions from the metal coating industry by lowering the VOC content limits for the general coatings and prefabricated architectural coatings categories and by modifying the category descriptions for specified coating categories. Operators may choose to use reformulated compliant coatings in place of currently used coatings, but this is not expected to change operating practices at affected facilities except as required by PAR 1107 for the use of t-BAc or DMC. In addition, no increased construction of spray booths are expected to result at facilities that use a relatively small amount of metal coatings because these facilities are not required to have SCAQMD permitted spray booths. In order to avoid having to apply and pay for an SCAQMD permit to install spray booths, these small users will likely switch to waterborne coatings. In addition, facilities that currently use a large amount of metal coatings typically already have SCAQMD-permitted spray booths. If operators of these larger usage facilities choose to use t-BAc or DMC above the de minimis levels contained in PAR 1107, an SCAQMD permit modification would be required.

Further, operators of affected facilities are not expected to install new or replace existing control equipment (i.e., afterburners) to comply with the proposed requirements in PAR 1107 for the following reasons: 1) metal coatings that comply with future effective dates are currently available and in use; 2) of the 2,330 facilities that are currently subject to the requirements in Rule 1107, only 42 use high VOC coatings that require control equipment such as afterburners, carbon filters, UV/ozone, et cetera; 4) facility operators are expected to continue to demonstrate that their control equipment can collect 90 percent by weight of the VOCs generated and can destroy 95 percent by weight of these VOCs.

Thus, answers to the following checklist items are based on the assumption that new compliant formulations of certain metal coatings would be used to meet the requirements of PAR 1107 and no physical modifications that would require construction activities would be expected to occur at the existing affected facilities.

All other provisions in PAR 1107 would not require any new physical modifications in order to achieve compliance, such as adding new and clarifying existing definitions, including a prohibition of sale for metal coatings that exceed applicable VOC content limits, and modifying recordkeeping and reporting requirements. Thus, because these proposed changes to PAR 1107 primarily affect the formulation of affected coatings they are not expected to require physical modifications in order to comply with these requirements.

Thus, answers to the following checklist items are based on the assumption that new compliant formulations of certain metal coatings would be used to meet the requirements of PAR 1107.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
I.	**AESTHETICS.** Would the project:				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☑
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☑
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☑
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☑

Significance Criteria

The proposed project impacts on aesthetics will be considered significant if:

- The project will block views from a scenic highway or corridor.
- The project will adversely affect the visual continuity of the surrounding area.
- The impacts on light and glare will be considered significant if the project adds lighting which would add glare to residential areas or sensitive receptors.

Discussion

I.a), b), c) & d) PAR 1107 would reduce VOC emissions from the metal coating industry by lowering the VOC content limits for the general coatings and prefabricated architectural coatings categories and by modifying the category descriptions for specified coating categories. The expected options for compliance with the VOC content limits are the use of new compliant formulations of certain metal coating materials beginning January 1, 2015.

Changing VOC content limits or compliance criteria as proposed in PAR 1107 would not result in any new construction of equipment, buildings or other structures that would obstruct scenic resources or degrade the existing visual character of a site, including but not limited to, trees, rock outcroppings, or historic buildings. Operators may use reformulated compliant coatings in place of currently used coatings, but this is not expected to change operating practices at affected facilities. Also, operators that have existing air pollution control equipment such as an afterburner and that continue to use high VOC coatings, are already required to comply with an outlet concentration limit of 5 ppm VOC by volume and a 95 percent destruction efficiency. Thus, no modifications to existing air pollution control equipment and no new installations of air pollution control equipment would be expected.

Likewise, additional light or glare would not be created which would adversely affect day or nighttime views in the area since no light generating equipment would be required to comply with the revised VOC limits in PAR 107.

Based upon these considerations, significant adverse aesthetics impacts are not expected from implementing PAR 1107, and thus, this topic will not be further analyzed in the Draft EA. Since no significant aesthetics impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
II.	**AGRICULTURE AND FOREST RESOURCES.** Would the project:				
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland mapping and Monitoring Program of the California Resources Agency, to non- agricultural use?	☐	☐	☐	☑
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☑
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104 (g))?	☐	☐	☐	☑
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☑

Significance Criteria

Project-related impacts on agriculture and forest resources will be considered significant if any of the following conditions are met:

- The proposed project conflicts with existing zoning or agricultural use or Williamson Act contracts.
- The proposed project will convert prime farmland, unique farmland or farmland of statewide importance as shown on the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency, to non-agricultural use.

- The proposed project conflicts with existing zoning for, or causes rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined in Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code § 51104 (g)).
- The proposed project would involve changes in the existing environment, which due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use.

Discussion

II. a), b), c), & d) Any activities associated with using new compliant formulations of metal coatings as a result of implementing PAR 1107 are expected to occur within the confines of the existing affected facilities located in industrial, commercial, or institutional areas. The proposed project would be consistent with the commercial, industrial and institutional zoning requirements for the various facilities and there are no agriculture or forest resources or operations on or near the affected facilities. No agricultural resources including Williamson Act contracts are located within or would be impacted by construction activities at the affected facilities. Therefore, the proposed project would not result in any new construction of buildings or other structures that would convert farmland to non-agricultural use or conflict with zoning for agricultural use or a Williamson Act contract.

Because use of new compliant formulations of metal coating can be drop-in replacements for existing metal coatings, PAR 1107 would not substantially change the facility or process for which the metal coatings are utilized. Further, there are no provisions in the proposed project that would affect land use plans, policies, or regulations. Land use and other planning considerations are determined by local governments and no land use or planning requirements relative to agricultural resources will be altered by the proposed project. For these same reasons, PAR 1107 would not result in the loss of forest land or conversion of forest land to non-forest use.

Based upon these considerations, significant agricultural and forest resources impacts are not expected from implementing PAR 1107, and thus, this topic will not be further analyzed in the Draft EA. Since no significant agricultural and forest resources impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	**Less Than Significant With Mitigation**	**Less Than Significant Impact**	**No Impact**
III. AIR QUALITY AND GREENHOUSE GAS EMISSIONS. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☑	☐
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☑
d) Expose sensitive receptors to substantial pollutant concentrations?	☑	☐	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☑	☐	☐	☐
f) Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutant(s)?	☐	☐	☐	☑
g) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☑
h) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☑

Air Quality Significance Criteria

To determine whether or not air quality impacts from adopting and implementing PAR 1107 are significant, impacts will be evaluated and compared to the criteria in Table 2-1. The project will be considered to have significant adverse air quality impacts if any one of the thresholds in Table 2-1 are equaled or exceeded.

Table 2-1
SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds [a]		
Pollutant	**Construction** [b]	**Operation** [c]
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
PM2.5	55 lbs/day	55 lbs/day
SOx	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants (TACs), Odor, and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO2eq for industrial facilities	
Ambient Air Quality Standards for Criteria Pollutants [d]		
NO2 1-hour average annual arithmetic mean	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)	
PM10 24-hour average annual average	10.4 μg/m^3 (construction)[e] & 2.5 μg/m^3 (operation) 1.0 μg/m^3	
PM2.5 24-hour average	10.4 μg/m^3 (construction)[e] & 2.5 μg/m^3 (operation)	
SO2 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	25 μg/m^3 (state)	
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
Lead 30-day Average Rolling 3-month average Quarterly average	1.5 μg/m^3 (state) 0.15 μg/m^3 (federal) 1.5 μg/m^3 (federal)	

[a] Source: SCAQMD CEQA Handbook (SCAQMD, 1993)
[b] Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).
[c] For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.
[d] Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated.
[e] Ambient air quality threshold based on SCAQMD Rule 403.

KEY: lbs/day = pounds per day ppm = parts per million μg/m^3 = microgram per cubic meter ≥ = greater than or equal to
MT/yr CO2eq = metric tons per year of CO2 equivalents > = greater than

Discussion

III. a) The 2007 Air Quality Management Plan, specifically Control Measure CM#2007 MCS-07 – Application of All Feasible Measures, contains general VOC emission reduction goals. PAR 1107 would partially implement CM#2007 MCS-07 to achieve VOC emission reductions from reformulated metal coatings. The net effect of implementing PAR 1107 is that VOC emissions from this source category will be reduced by 1.65 tons per day thus providing an overall direct air quality benefit. This VOC emission reduction will assist the SCAQMD's progress in attaining and maintaining the ambient air quality standards for ozone.

Therefore, PAR 1107 is not expected to conflict with or obstruct implementation of the applicable air quality control plan because the 2007 AQMP demonstrates that the effects of all existing rules, in combination with implementing all AQMP control measures (including "black box" measures not specifically described in the 2007 AQMP) would bring the district into attainment with all applicable national and state ambient air quality standards. Therefore, PAR 1107 is not expected to significantly conflict or obstruct implementation of the applicable air quality plan, but instead, would contribute to attaining and maintaining the ozone and PM standards by achieving VOC reductions.

For these reasons, implementation of all other SCAQMD VOC rules along with AQMP control measures, when considered together, is expected to reduce VOC emissions throughout the region overall by 2020. Therefore, implementing the proposed project will not conflict or obstruct implementation of the AQMP.

III. b) & c) The anticipated VOC emission reductions that may result from implementing the proposed project are expected to improve the overall air quality in the Basin by enhancing the probability of attaining and maintaining state and federal ambient air quality standards for ozone. Since PAR 1107 would result in a reduction of an ozone precursor, VOC, implementing PAR 1107 would not violate an air quality standard or contribute to an existing or projected air quality violation. Therefore, the projected VOC emission reductions from implementing PAR 1107 are seen as benefits and do not exceed any of the air quality significance thresholds in Table 2-1. Furthermore, air quality impacts are not considered to be cumulatively considerable as defined in CEQA Guidelines §15065(c) and are not expected to result in a cumulatively considerable net increase of any criteria pollutant.

Thus, no impacts to these impact issues are expected. Accordingly, these impact issues will not be further analyzed in the Draft EA.

III. d) For a discussion of this item, refer to the following analysis.

Construction Air Quality Impacts

It is expected that operators at affected facilities will comply with PAR 1107 by using reformulated metal coating products. Since the proposed reductions to VOC content limits of specified metal coatings would not require physical changes or modifications involving construction activities, there will be no direct or indirect construction air quality impacts resulting from the proposed project.

Operational Air Quality Impacts

The purpose of Rule 1107 is to control VOC emissions from coatings applied to metal substrates primarily by limiting the VOC content of affected coatings. PAR 1107 is expected to achieve an overall VOC emission reduction of 1.65 tons per day from reformulated metal coatings (e.g., 1.16 tons per day in 2014 and an additional 0.49 ton per day in 2017). These reductions will be permanent and will provide an overall air quality benefit to the district. Compliance is expected to occur primarily through the use of reformulated metal coatings.

Since PAR 1107 does not dictate any particular compliant materials, the proposed project may result in the use of materials that contain VOCs and toxics. While Rule 1107 does not directly regulate TAC emissions, it may indirectly control TAC emissions to the extent that TAC components are also classified as VOCs. As a result, some existing compliant coating formulations contain TACs such as ethylbenzene, formaldehyde, MEK, MIBK, toluene, triethylamine, 1,2,4-trimethylbenzene, and xylene. Although Rule 1107 does not limit TAC emissions from affected coatings, cancer and non-cancer health risks from TACs are regulated by either Rule 1401 or 1402.

Because PAR 1107 contains a limited use exemption for both t-BAc and DMC, an increase in TAC emissions may occur at those facilities whose operators choose to use metal coatings reformulated with either of these chemicals, which could increase exposures of possible air toxics to onsite workers and offsite sensitive receptors. Since there are a multitude of formulations per coating category and that future formulations of potentially compliant materials are unknown at this time, the specific quantities of these chemicals contained in the metal coatings are also unknown. In addition, it is currently unclear which types of metal coating operations t-BAc and DMC would be most suitable.

Modeling of t-BAC and DMC was performed in accordance with the SCAQMD's Risk Assessment Procedures for Rules 1401 and 212 for offsite receptors. Based on the modeling, limits on coatings containing t-BAc and DMC have been incorporated into PAR 1107. These limits were shown to not cause an exceedance of the cancer or HI thresholds such that significant offsite exposures to sensitive receptors would be prevented. Thus, because significant adverse offsite exposures are not expected to be significant based on the coatings limitations in PAR 1107, toxics impacts are not cumulatively considerable, and therefore, not cumulatively significant.

However, SCAQMD staff has received comments from PAR 1107 stakeholders stating that exposure to coatings formulated with t-BAc and DMC has the potential to create significant adverse onsite worker health impacts. Although some metal coatings formulations currently contain carcinogenic and non-carcinogenic materials with health effects other than cancer, one of the concerns is if formulations containing t-BAc, a potential carcinogen, replace existing metal coatings that currently do not contain carcinogens, workers could be exposed to new health risks. Similarly, if metal coating formulations contain DMC, a material that can potentially cause non-cancer health risks, and replace coatings with no health risks or coatings that are carcinogenic or potentially carcinogenic, again workers could be exposed to new health risks. Information provided to SCAQMD on worker health risks from exposure to t-BAc and DMC will be included in the Draft EA. Since information has been provided to SCAQMD staff demonstrating potentially significant adverse toxics impacts to onsite workers and since significant impacts

could occur at a number of facilities, the potential cancer/HI impacts to onsite workers could potentially be cumulatively significant, and therefore, will be evaluated in the Draft EA.

III. e) Historically, the SCAQMD has enforced odor nuisance complaints through SCAQMD Rule 402 - Nuisance. PAR 1107 will require the reduction of the VOC content limit from various coating categories which will require coating manufacturers to formulate with solvents that emit less VOC. The proposed amendments will also allow a limited use of t-BAc and DMC to be treated as a VOC-exempt solvent. To comply with the lower VOC content limits, some metal coatings may be waterborne while others may be solvent-based. Waterborne coatings typically have less solvent than existing solvent-based coatings. Based on site visit comparison between a solvent-based coating manufacturing facility and a waterborne coating manufacturing facility, facilities that convert to waterborne coatings are assumed to have a beneficial effect on nuisance odor. However, there is a possibility that due to the proposed limited use of t-BAc and DMC, PAR 1107 could increase the amount of these solvents used in metal coatings and used by facilities due to operator choice or desired performance. Moreover, coatings could also be reformulated with PCBTF, which has known odor impacts. Thus, the odor profile of the reformulated metal coatings may change.

In order to determine the extent of the potential odor impact from the proposed rule, an odor analysis will need to be conducted in the Draft EA to compare the conventional solvents with the lower VOC formulations, including t-BAc, DMC and PCBTF.

III. f) The proposed project would be required to comply with all applicable SCAQMD, CARB, and EPA rules and regulations. Thus, the proposed project is not expected to diminish an existing air quality rule or future compliance requirements. Further, adopting and implementing the proposed project enhances existing air pollution control rules that are expected to assist the SCAQMD in its efforts to attain and maintain with a margin of safety the state and federal ambient air quality standards for VOC.

III. g) & h) Because PAR 1107 contains a limited use exemption for both t-BAc and DMC, an increase in TAC emissions may occur at those facilities whose operators choose to use metal coatings reformulated with either of these chemicals. However, because compliant reformulated coatings, including those containing t-BAc and DMC, are not greenhouse gases (GHGs) and are not classified at ozone depleting compounds, any projected use in reformulations with these chemicals is not expected to increase GHG emissions as a result of implementing PAR 1107. Thus, no significant adverse impacts to GHG are expected from implementing PAR 1107. Since no construction is predicted to result from implementing PAR 1107, there will not be an increase in GHGs due to construction equipment or vehicle trips. No increase in the amount of truck delivery trips is expected as the anticipated volume of reformulated metal coatings is expected to remain the same or slightly less from the current setting. Further, since no increase in GHG emissions are expected to occur as a result of implementing the proposed project, no conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions would be expected. For the aforementioned reasons, the effect of PAR 1107 on GHG emissions will not be further evaluated in the Draft EA.

Summary
Based upon these considerations, the air quality impacts associated with increased use of TACs as part of metal coating reformulations that may occur as a result of the proposed project will be evaluated further in the Draft EA.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
IV.	**BIOLOGICAL RESOURCES.** Would the project:				
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
c)	Have a substantial adverse effect on federally protected wetlands as defined by §404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☑
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☑
e)	Conflicting with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☑

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
f)	Conflict with the provisions of an adopted Habitat Conservation plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☑

Significance Criteria

Impacts on biological resources will be considered significant if any of the following criteria apply:

- The project results in a loss of plant communities or animal habitat considered to be rare, threatened or endangered by federal, state or local agencies.
- The project interferes substantially with the movement of any resident or migratory wildlife species.
- The project adversely affects aquatic communities through construction or operation of the project.

Discussion

IV. a), b), c), & d) PAR 1107 would only affect formulations of metal coatings used in equipment or processes related to metal coating operations at existing facilities located primarily in industrial, commercial, or institutional areas, which have already been greatly disturbed. PAR 1107 will not require construction of any new structures or modification of existing structures to comply with the lower VOC content requirements. In general, these areas currently do not typically support riparian habitat, federally protected wetlands, or migratory corridors. Additionally, special status plants, animals, or natural communities are not expected to be found in close proximity to the affected facilities.

Therefore, the proposed project would have no direct or indirect impacts that could adversely affect plant or animal species or the habitats on which they rely in the SCAQMD's jurisdiction. The current and expected future land use development to accommodate population growth is primarily due to economic considerations or local government planning decisions. A conclusion in the Program Environmental Impact Report (EIR) for the 2007 AQMP was that population growth in the region would have greater adverse effects on plant species and wildlife dispersal or migration corridors in the basin than SCAQMD regulatory activities, (e.g., air quality control measures or regulations). The current and expected future land use development to accommodate population growth is primarily due to economic considerations or local government planning decisions.

IV. e) & f) The proposed project is not envisioned to conflict with local policies or ordinances protecting biological resources or local, regional, or state conservation plans. Land use and other planning considerations are determined by local governments and no land use or planning requirements will be altered by the proposed project. Additionally, the proposed project will not

conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any other relevant habitat conservation plan, and would not create divisions in any existing communities because all activities associated with complying with the proposed project will occur at existing facilities located primarily in industrial, commercial, or institutional areas.

The SCAQMD, as the Lead Agency for the proposed project, has found that, when considering the record as a whole, there is no evidence that the proposed project will have potential for any new adverse effects on wildlife resources or the habitat upon which wildlife depends. Accordingly, based upon the preceding information, the SCAQMD has, on the basis of substantial evidence, rebutted the presumption of adverse effect contained in §753.5 (d), Title 14 of the California Code of Regulations.

Based upon these considerations, significant biological resource impacts are not expected from implementing PAR 1107, and thus, this topic will not be further analyzed in the Draft EA. Since no significant biological resource impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
V.	**CULTURAL RESOURCES.** Would the project:				
a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☑
b)	Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	☐	☐	☐	☑
c)	Directly or indirectly destroy a unique paleontological resource, site, or feature?	☐	☐	☐	☑
d)	Disturb any human remains, including those interred outside formal cemeteries?	☐	☐	☐	☑

Significance Criteria

Impacts to cultural resources will be considered significant if:

- The project results in the disturbance of a significant prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group.
- Unique paleontological resources are present that could be disturbed by construction of the proposed project.
- The project would disturb human remains.

Discussion

V. a), b), c), & d) There are existing laws in place that are designed to protect and mitigate potential impacts to cultural resources. Since construction-related activities associated with the implementation of PAR 1107 are not expected, no impacts to historical resources will occur as a result of this project. PAR 1107 is not expected to require physical changes to the environment, which may disturb paleontological or archaeological resources. Furthermore, it is envisioned that the areas where metal coating facilities exist are already either devoid of significant cultural resources or whose cultural resources have been previously disturbed.

Based upon these considerations, significant adverse cultural resources impacts are not expected from implementing PAR 1107, and thus, this topic will not be further analyzed in the Draft EA. Since no significant cultural resources impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VI.	**ENERGY.** Would the project:				
a)	Conflict with adopted energy conservation plans?	☐	☐	☐	☑
b)	Result in the need for new or substantially altered power or natural gas utility systems?	☐	☐	☐	☑
c)	Create any significant effects on local or regional energy supplies and on requirements for additional energy?	☐	☐	☐	☑
d)	Create any significant effects on peak and base period demands for electricity and other forms of energy?	☐	☐	☐	☑
e)	Comply with existing energy standards?	☐	☐	☐	☑

Significance Criteria

Impacts to energy and mineral resources will be considered significant if any of the following criteria are met:

- The project conflicts with adopted energy conservation plans or standards.
- The project results in substantial depletion of existing energy resource supplies.
- An increase in demand for utilities impacts the current capacities of the electric and natural gas utilities.
- The project uses non-renewable resources in a wasteful and/or inefficient manner.

Discussion

VI. a) & e) The primary effect of implementing PAR 1107 is that specified categories of metal coatings will be subject to lower VOC content requirements. This is typically accomplished by

increasing the solids content of the materials or reformulating them with waterborne or exempt compound solvents. Reformulating existing metal coatings is expected to create little or no demand for energy at affected facilities. The usage of the new reformulated products is also not expected to create any additional demand for energy at any of the affected facilities because new or modified equipment would not be needed in order to use the new reformulated metal coatings in place of the existing reformulated coatings. Thus, it is unlikely that it is unlikely that energy demand at the affected existing facilities would change.

The proposed project is not subject to any existing energy conservation plans. As a result, PAR 1107 would not conflict with energy conservation plans, use non-renewable resources in a wasteful manner, or result in the need for new or substantially altered power or natural gas systems. Since PAR 1107 would affect existing facilities, it will not conflict with adopted energy conservation plans because existing facilities would be expected to continue implementing any existing energy conservation plans. Additionally, affected facilities are expected to comply with existing energy conservation plans and standards to minimize operating costs but still comply with the requirements of PAR 1107. Accordingly these impact issues will not be further analyzed in the Draft EA.

VI. b), c) & d). PAR 1107 would not create any significant effects on peak and base period demands for electricity and other forms of energy since no construction of buildings or other structures are anticipated as a result of facilities complying with the lowered VOC content limits for metal coatings. Since no new structures would need to be built as a result of implementing PAR 1107, no new energy demand is created.

Since the primary effect of implementing PAR 1107 is that specified categories of metal coatings will be subject to lower VOC content requirements, facility operators that use new reformulations of metal coatings in existing equipment and operations are not expected to modify any equipment or operations in a way that would cause an increase in the demand for energy resources.

PAR 1107 is neither expected to cause a substantial depletion of energy resources nor increase the demand for fuel when compared to existing supplies. In light of the preceding discussion, PAR 1107 would not create any significant effects on peak and base period demands for electricity and other forms of energy. Further, affected facilities would be expected to continue to comply with existing energy standards regardless of the metal coatings formulation in place. Thus, the proposed project is not expected to use energy in a wasteful manner.

Based upon these considerations, significant adverse energy impacts are not expected from implementing PAR 1107, and thus, this topic will not be further analyzed in the Draft EA. Since no significant energy impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VII.	**GEOLOGY AND SOILS.** Would the project:				
a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☑
	• Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☐	☑
	• Strong seismic ground shaking?	☐	☐	☐	☑
	• Seismic–related ground failure, including liquefaction?	☐	☐	☐	☑
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☑
c)	Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☑
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☑
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☑

Significance Criteria

Impacts on the geological environment will be considered significant if any of the following criteria apply:

- Topographic alterations would result in significant changes, disruptions, displacement, excavation, compaction or over covering of large amounts of soil.

- Unique geological resources (paleontological resources or unique outcrops) are present that could be disturbed by the construction of the proposed project.
- Exposure of people or structures to major geologic hazards such as earthquake surface rupture, ground shaking, liquefaction or landslides.
- Secondary seismic effects could occur which could damage facility structures, e.g., liquefaction.
- Other geological hazards exist which could adversely affect the facility, e.g., landslides, mudslides.

Discussion

VII. a) Southern California is an area of known seismic activity. Structures must be designed to comply with the Uniform Building Code Zone 4 requirements if they are located in a seismically active area. The local city or county is responsible for assuring that a proposed project complies with the Uniform Building Code as part of the issuance of the building permits and can conduct inspections to ensure compliance. The Uniform Building Code is considered to be a standard safeguard against major structural failures and loss of life. The goal of the code is to provide structures that will: (1) resist minor earthquakes without damage; (2) resist moderate earthquakes without structural damage but with some non-structural damage; and (3) resist major earthquakes without collapse but with some structural and non-structural damage.

The Uniform Building Code bases seismic design on minimum lateral seismic forces ("ground shaking"). The Uniform Building Code requirements operate on the principle that providing appropriate foundations, among other aspects, helps to protect buildings from failure during earthquakes. The basic formulas used for the Uniform Building Code seismic design require determination of the seismic zone and site coefficient, which represent the foundation conditions at the site. Accordingly, buildings and equipment at existing affected facilities are likely to conform with the Uniform Building Code and all other applicable state codes in effect at the time they were constructed.

Since the expected options for compliance with the VOC content limits are the use of new compliant formulations of certain metal coating materials, no new buildings or structures are expected to be constructed in response to implementing PAR 1107. Thus, the proposed project would not alter the exposure of people or property to geological hazards such as earthquakes, landslides, mudslides, ground failure, or other natural hazards. As a result, substantial exposure of people or structures to the risk of loss, injury, or death involving the rupture of an earthquake fault, seismic ground shaking, ground failure or landslides is not anticipated and will not be further analyzed in the Draft EA.

VII. b) PAR 1107 will affect metal coatings used in metal coating activities, which occur at existing industrial, commercial, and institutional facilities. Since the primary effect of PAR 1107 is a change in formulation of metal coatings currently in use, no soil disruption from excavation, grading, or filling activities; changes in topography or surface relief features; erosion of beach sand; or changes in existing siltation rates are anticipated from the implementation of PAR 1107. Consequently, soil disturbing activities that could cause soil erosion are not anticipated.

VII. c) Since PAR 1107 will affect operations of existing metal coating facilities, it is expected that the soil types present at the affected facilities will not be further susceptible to expansion or liquefaction. Furthermore, subsidence is not anticipated to be a problem since no excavation,

grading, or filling activities will occur at affected facilities. Further, the proposed project does not involve drilling or removal of underground products (e.g., water, crude oil, et cetera) that could produce subsidence effects. Additionally, the affected areas are not envisioned to be prone to landslides or have unique geologic features since the affected facilities are located in industrial or commercial areas where such features have already been altered or removed.

Finally, since implementation of PAR 1107 would be expected to affect operations at existing facilities, the proposed project is not expected to alter or make worse any existing potential for subsidence, liquefaction, et cetera.

VII. d) & e) Since the proposed project will affect metal coating operations at existing facilities located in industrial, commercial or institutional zones, it is expected that people or property will not be exposed to new impacts related to expansive soils or soils incapable of supporting water disposal. Further, typically each affected facility has some degree of existing wastewater treatment systems that will continue to be used and are expected to be unaffected by the proposed project. Sewer systems are available to handle wastewater produced and treated by each affected facility. Each existing facility affected by the proposed project does not require installation of septic tanks or alternative wastewater disposal systems. As a result, the proposed project will not require facility operators to utilize septic systems or alternative wastewater disposal systems. Thus, implementation of the proposed project will not adversely affect soils associated with a septic system or alternative wastewater disposal system.

Based upon these considerations, significant geology and soils impacts are not expected from implementing PAR 1107, and thus, this topic will not be further analyzed in the Draft EA. Since no significant geology and soils impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, and disposal of hazardous materials?	☑	☐	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset conditions involving the release of hazardous materials into the environment?	☑	☐	☐	☐

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
c)	Emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☑	☐	☐	☐
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would create a significant hazard to the public or the environment?	☐	☐	☐	☑
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public use airport or a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☑	☐	☐	☐
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☑	☐
g)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☑	☐
h)	Significantly increased fire hazard in areas with flammable materials?	☑	☐	☐	☐

Significance Criteria

Impacts associated with hazards will be considered significant if any of the following occur:

- Non-compliance with any applicable design code or regulation.
- Non-conformance to National Fire Protection Association standards.
- Non-conformance to regulations or generally accepted industry practices related to operating policy and procedures concerning the design, construction, security, leak detection, spill containment or fire protection.
- Exposure to hazardous chemicals in concentrations equal to or greater than the Emergency Response Planning Guideline (ERPG) 2 levels.

Discussion

VIII. a) & b) At many of the affected facilities, current formulations of metal coating materials in use contain toxics such as ethylbenzene, formaldehyde, MEK, MIBK, toluene, triethylamine, 1,2,4-trimethylbenzene, and xylene, which all currently require product delivery and waste transport services. While there are no provisions in PAR 1107 that would require the total volume of metal coatings currently used by affected facilities to change, the use of new compliant formulations of metal coatings may alter the chemical constituents of the solvents used in these operations. For example, future compliant products can be formulated by using higher solids content materials or by using waterborne or exempt products such as t-BAc, DMC, or acetone.

If reformulated coatings contain a different amount of solids, there may be slight decrease in the volume of coating used at a given facility depending on whether the coating is solvent-based or water-borne. For example, the solids content is approximately 70 percent for solvent-based coatings and 40 percent for waterborne coatings. Thus, if facility operators switch to using more waterborne coatings, the volume of coatings that may be used and transported could actually decrease. Further, if PAR 1107 affected facilities convert to using more powder coatings, hazardous waste disposal amounts and the associated fees could be reduced since typical waste from powder coatings can be baked into a cube and would not be considered reportable hazardous wastes.

Thus, even if facility operators continue to use current formulations or reformulated solvent-based coatings, the volume of coatings used and transported would be expected to remain about the same. For these reasons there will be no increase in potential material delivery or waste disposal truck trips in response to PAR 1107, even if the metal coatings are reformulated.

With regard to the use of metal coatings that may be reformulated with hazardous materials such as t-BAc, DMC, or acetone, the potential for exposures due to an accidental release could increase if a facility that currently uses waterborne coatings changes to using solvent-based reformulated coatings. Further, because t-BAc, DMC, and acetone are highly flammable, future compliant products reformulated with these chemicals may cause increased fire hazards at the facilities using these products.

Lastly, if metal coatings are reformulated with t-BAc or DMC, there may be hazards and hazardous materials impacts because these chemicals may cause adverse health effects to onsite workers, offsite receptors and sensitive populations.

For these reasons, implementation of PAR 1107 may create new significant adverse hazards and hazardous materials impacts when operators use reformulated products because of a potential for an accidental release. In general, the major types of public safety risks that need to be evaluated consist of impacts resulting from toxic substance releases, fires, and explosions. Therefore, potential hazards impacts as a result of implementing the proposed project are potentially significant and will be addressed in the Draft EA.

VIII. c) & e) Some affected facilities may be located within one-quarter mile of a sensitive receptor (e.g., a school) or in close proximity to a public/private airport. Therefore, a potential for significant impacts from use and potential accidental release of acutely hazardous materials,

substances and wastes near sensitive receptors and public/private airports may occur and will be addressed in the Draft EA.

VIII. d) Even if some affected facilities are designated pursuant to Government Code §65962.5 as a large quantity generator of hazardous waste, complying with PAR 1107 will not alter in any way how affected facilities manage their hazardous wastes and they will continue to be managed in accordance with all applicable federal, state, and local rules and regulations. Accordingly, this impact issue will not be further analyzed in the Draft EA.

VIII. f) Health and Safety Code §25506 specifically requires all businesses handling hazardous materials to submit a business emergency response plan to assist local administering agencies in the emergency release or threatened release of a hazardous material. Business emergency response plans generally require the following:

- Identification of individuals who are responsible for various actions, including reporting, assisting emergency response personnel and establishing an emergency response team;
- Procedures to notify the administering agency, the appropriate local emergency rescue personnel, and the California Office of Emergency Services;
- Procedures to mitigate a release or threatened release to minimize any potential harm or damage to persons, property or the environment;
- Procedures to notify the necessary persons who can respond to an emergency within the facility;
- Details of evacuation plans and procedures;
- Descriptions of the emergency equipment available in the facility;
- Identification of local emergency medical assistance; and
- Training (initial and refresher) programs for employees in:
    1. The safe handling of hazardous materials used by the business;
    2. Methods of working with the local public emergency response agencies;
    3. The use of emergency response resources under control of the handler;
    4. Other procedures and resources that will increase public safety and prevent or mitigate a release of hazardous materials.

In general, every county or city and all facilities using a minimum amount of hazardous materials are required to formulate detailed contingency plans to eliminate, or at least minimize, the possibility and effect of fires, explosion, or spills. In conjunction with the California Office of Emergency Services, local jurisdictions have enacted ordinances that set standards for area and business emergency response plans. These requirements include immediate notification, mitigation of an actual or threatened release of a hazardous material, and evacuation of the emergency area.

Emergency response plans are typically prepared in coordination with the local city or county emergency plans to ensure the safety of not only the public (surrounding local communities), but the facility employees as well. The proposed project would not impair implementation of, or physically interfere with any adopted emergency response plan or emergency evacuation plan. The existing facilities affected by the proposed project would typically already have their own emergency response plans in place. However, operators of affected facilities who elect to use

new compliant formulations of metal coatings may need to update their emergency response plan. Thus, the proposed project is not expected to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, but may require changes. As such, this impact issue will not be further analyzed in the Draft EA.

VIII. g) The proposed project is not expected to increase the existing risk of fire hazards in areas with flammable brush, grass, or trees since the facilities that conduct metal coating operations are located at existing industrial, commercial and institutional sites in urban areas where wildlands are not prevalent. In addition, no substantial or native vegetation typically exists on or near the affected facilities (specifically because they could be a fire hazard) so the proposed project is not expected to expose people or structures to wild fires. Thus, risk of loss or injury associated with wildland fires is not expected. Accordingly, this impact issue will not be further evaluated in the Draft EA.

VIII. h) The Uniform Fire Code and Uniform Building Code set standards intended to minimize risks from flammable or otherwise hazardous materials. Local jurisdictions are required to adopt the uniform codes or comparable regulations. Local fire agencies require permits for the use or storage of hazardous materials and permit modifications for proposed increases in their use. Permit conditions depend on the type and quantity of the hazardous materials at the facility. Permit conditions may include, but are not limited to, specifications for sprinkler systems, electrical systems, ventilation, and containment. The fire departments make annual business inspections to ensure compliance with permit conditions and other appropriate regulations. Further, businesses are required to report increases in the storage or use of flammable and otherwise hazardous materials to local fire departments. Local fire departments ensure that adequate permit conditions are in place to protect against potential risk of upset.

It is important to note that t-BAc, DMC, and acetone are highly flammable. Thus, future compliant products reformulated with these chemicals may cause increased fire hazards at the facilities using these products. If facility operators use metal coatings that are reformulated with chemicals that are more flammable than previous chemicals in use, a change to each facility's existing hazards and hazardous materials impacts with respect to flammability could occur that could require modifications to hazards permits issued by the local fire departments. Because PAR 1107 has the potential to result in reformulated metal coatings used at existing affected facilities that may be more flammable than existing formulations, therefore, PAR 1107 could create a significant increase in fire hazards potential in areas with flammable materials.

Based on these considerations, the potential hazards and hazardous materials impacts related to the reformulation and use of reformulated metal coatings at each affected facility will be addressed in the Draft EA.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
IX.	**HYDROLOGY AND WATER QUALITY.** Would the project:				
a)	Violate any water quality standards, waste discharge requirements, exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, or otherwise substantially degrade water quality?	☐	☐	☐	☑
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☑
c)	Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on- or off-site or flooding on- or off-site?	☐	☐	☐	☑
d)	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☑
e)	Place housing or other structures within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, which would impede or redirect flood flows?	☐	☐	☐	☑

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
f)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☑
g)	Require or result in the construction of new water or wastewater treatment facilities or new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
h)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☑	☐
i)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☑

Significance Criteria

Potential impacts on water resources will be considered significant if any of the following criteria apply:

Water Demand:

- The existing water supply does not have the capacity to meet the increased demands of the project, or the project would use more than 262,820 gallons per day of potable water.
- The project increases demand for total water by more than five million gallons per day.

Water Quality:

- The project will cause degradation or depletion of ground water resources substantially affecting current or future uses.
- The project will cause the degradation of surface water substantially affecting current or future uses.

- The project will result in a violation of National Pollutant Discharge Elimination System (NPDES) permit requirements.
- The capacities of existing or proposed wastewater treatment facilities and the sanitary sewer system are not sufficient to meet the needs of the project.
- The project results in substantial increases in the area of impervious surfaces, such that interference with groundwater recharge efforts occurs.
- The project results in alterations to the course or flow of floodwaters.

Discussion

IX. a), g), & i) PAR 1107 will affect metal coating facilities that are located in existing industrial, commercial, and institutional settings. The expected options for compliance with the VOC content limits are the use of reformulated metal coatings. If all the affected facilities comply with PAR 1107 by using compliant materials in accordance with the effective date, no change or a slight reduction in the amount of materials used at these facilities would be anticipated. For this reason, about the same amount of materials would be needed for clean-up as the current setting. Consequently, there would be no substantial change in the volume of existing wastewater streams from the affected facilities. In addition, PAR 1107 would not be expected to require additional wastewater disposal capacity, violate any water quality standard or wastewater discharge requirements, or otherwise substantially degrade water quality.

No other physical modifications or changes associated with the implementation of PAR 1107 are expected. For these reasons, complying with the proposed project will not change existing operations at affected facilities in a way that would result in generation of increased volumes of wastewater. As a result, there is little or no potential for changes in wastewater volume or composition expected from facilities complying with the requirements in PAR 1107. Further, PAR 1107 is not expected to cause affected facilities to violate any water quality standard or wastewater discharge requirements since wastewater volumes associated with PAR 1107 are expected to remain unchanged.

IX. b) The proposed project will not utilize ground water; therefore, PAR 1107 will not cause degradation or depletion of ground water resources substantially affecting current or future uses. Thus, implementation of PAR 1107 is not expected to significantly adversely affect the quantity or quality of groundwater in the area of each affected facility.

IX. c), & d) Implementation of PAR 1107 will occur at existing facilities, that are typically located in industrial, commercial and institutional areas that are paved and the drainage infrastructures are already in place. Since PAR 1107 does not involve construction activities, no changes to storm water runoff, drainage patterns, groundwater characteristics, or flow are expected. Further, PAR 1107 will not alter the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on- or off-site or flooding on- or off-site. Therefore, these impact areas are not expected to be affected by PAR 1107.

IX. e), & f) PAR 1107 will not require construction of new housing or contribute to the construction of new building structures because no facility modifications or changes are expected to occur at existing facilities as a result of implementing PAR 1107. PAR 1107 is not expected to require additional workers at affected facilities. Therefore, PAR 1107 is not expected to

generate construction of any new structures in 100-year flood areas as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood delineation map. As a result, PAR 1107 is not expected to expose people or structures to significant flooding risks. Finally, PAR 1107 will not affect in any way any potential flood hazards inundation by seiche, tsunami, or mud flow that may already exist relative to existing facilities.

IX. h) The expected options for compliance with the proposed VOC content limits in PAR 1107 are the use of new compliant formulations of certain metal coatings. Some coatings may be formulated using a higher solids content while others may be reformulated using t-BAc or DMC. Waterborne coatings are already in use (e.g., prefabricated architectural one-component systems). However, as reformulation research continues, more coatings are expected to be reformulated with waterborne technology and the use of waterborne coating is expected to increase overall.

SCAQMD staff estimates that most of the smaller metal coating facilities will switch to using waterborne coatings at a rate of approximately 194,000 gallons per year. By conservatively estimating that it takes two gallons of water to manufacture one gallon of waterborne coating at a water content of 60 percent, approximately 400,000 gallons of water would be needed each year to satisfy the additional anticipated demand for waterborne coatings. Assuming that the schedule for manufacturing waterborne coatings occurs 260 days per year, the amount of additional water that may be needed is approximately 1,538 gallons per day. Since manufacturers of waterborne metal coatings are located throughout the United States, the increased demand for water to manufacture these products would not be expected to occur entirely within the district's boundaries. Even if the entire increased water demand occurs within the district, the water needed to implement PAR 1107 would remain well below the significance threshold of 262,820 gallons per day for potable water and five million gallons per day for total water. Thus, the existing water supply should have the capacity to meet the entire increased demands of the proposed project, even though, as a practical matter, some of the water use will occur outside of the District's boundaries.

Aside from manufacturing waterborne coatings discussed above, PAR 1107 has no other provision that would increase demand for water at existing affected facilities that will be using reformulated metal coatings. Thus, the proposed project would not require the construction of additional water resource facilities or increase the need for new or expanded water entitlements. Therefore, less than significant water demand impacts are expected as the result of implementing PAR 1107.

Based upon these considerations, significant hydrology and water quality impacts are not expected from implementing PAR 1107, and thus, this topic will not be further analyzed in the Draft EA. Since no significant hydrology and water quality impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	☐	☐	☐	☑
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☑

Significance Criteria
Land use and planning impacts will be considered significant if the project conflicts with the land use and zoning designations established by local jurisdictions.

Discussion
X. a) The primary effect of implementing PAR 1107 is that specified categories of metal coatings will be subject to lower VOC content requirements. This is typically accomplished by increasing the solids content of the materials or reformulating them with waterborne or exempt compound solvents. By lowering the VOC content of certain metal coatings, the proposed project would regulate metal coating operations at existing facilities located in industrial, commercial, and institutional settings. Since PAR 1107 affects existing facilities, the proposed project does not include any components that would require physically dividing any established communities.

X. b) & c) There are no provisions in PAR 1107 that would affect land use plans, policies, or regulations. Land use and other planning considerations are determined by local governments and no land use or planning requirements will be altered by regulating VOC emissions in metal coatings. Since PAR 1107 would establish lower VOC content requirements for metal coatings in use, switching to reformulated metal coatings is expected to occur within the confines of these existing facilities, which are located in industrial, commercial, and institutional settings. PAR 1107 would not affect in any way habitat conservation or natural community conservation plans, agricultural resources or operations, and would not create divisions in any existing communities. Further, no new development or alterations to existing land designations will occur as a result of implementing PAR 1107. Therefore, present or planned land uses in the region will not be significantly adversely affected as a result of the proposed amended rule

Based upon these considerations, significant land use and planning impacts are not expected from implementing PAR 1107, and thus, this topic will not be further analyzed in the Draft EA.

Since no significant land use and planning impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XI.	**MINERAL RESOURCES.** Would the project:				
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☑
b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☑

Significance Criteria

Project-related impacts on mineral resources will be considered significant if any of the following conditions are met:

- The project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- The proposed project results in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Discussion

XI. a) & b) There are no provisions in PAR 1107 that would result in the loss of availability of a known mineral resource of value to the region and the residents of the state such as aggregate, coal, clay, shale, et cetera, or of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Based upon these considerations, significant mineral resource impacts are not expected from implementing PAR 1107, and thus, will not be further analyzed in the Draft EA. Since no significant mineral resource impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XII. NOISE. Would the project result in:				
a) Exposure of persons to or generation of permanent noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☑
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☑
c) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☑
d) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public use airport or private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑

Significance Criteria

Noise impact will be considered significant if:

- Construction noise levels exceed the local noise ordinances or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three decibels (dBA) at the site boundary. Construction noise levels will be considered significant if they exceed federal Occupational Safety and Health Administration (OSHA) noise standards for workers.
- The proposed project operational noise levels exceed any of the local noise ordinances at the site boundary or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three dBA at the site boundary.

Discussion

XII. a), b), c), & d) PAR 1107 will affect metal coating facilities that are located in existing industrial, commercial, and institutional settings. The expected options for compliance with the VOC content limits are the use of new compliant formulations of certain metal coating materials. No other physical modifications or changes associated with the implementation of PAR 1107 are expected. Thus, the proposed project is not expected to expose persons to the generation of excessive noise levels above current facility levels because the proposed project primarily involves using different formulations of metal coatings while generally using the same coating application techniques. It is expected that any facility affected by PAR 1107 will comply with all existing noise control laws or ordinances. Further, Occupational Safety and Health

Administration (OSHA) and California-OSHA have established noise standards to protect worker health. It is expected that all workers at affected facilities will continue complying with applicable noise standards.

PAR 1107 is not anticipated to expose people to or generate excessive groundborne vibration or groundborne noise levels since no construction activities are expected to occur at the existing facilities and switching to reformulated products does not involve, in any way, equipment that generates vibrations.

No increase in periodic or temporary ambient noise levels in the vicinity of affected facilities above levels existing prior to PAR 1107 is anticipated because the proposed project would not require construction-related activities at affected facilities or change the existing operations at the affected facilities. The existing noise levels are unlikely to change and raise ambient noise levels in the vicinities of the existing facilities to above a level of significance because PAR 1107 primarily involves using different formulations of metal coatings while generally using the same coating application techniques and equipment.

Lastly, implementation of PAR 1107 would not consist of improvements within the existing facilities that require construction activities and noise-generating construction equipment. Even if an affected facility is located near a public/private airport, there are no new noise impacts expected from any of the existing facilities as a result of complying with the proposed project. Thus, PAR 1107 is not expected to expose people residing or working in the project vicinities to excessive noise levels.

Based upon these considerations, significant noise impacts are not expected from implementing PAR 1107, and thus, this topic will not be further analyzed in the Draft EA. Since no significant noise impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	**Less Than Significant With Mitigation**	**Less Than Significant Impact**	**No Impact**
XIII.	**POPULATION AND HOUSING.** Would the project:				
a)	Induce substantial growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (e.g. through extension of roads or other infrastructure)?	☐	☐	☐	☑
b)	Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

Significance Criteria
Impacts of the proposed project on population and housing will be considered significant if the following criteria are exceeded:
- The demand for temporary or permanent housing exceeds the existing supply.
- The proposed project produces additional population, housing or employment inconsistent with adopted plans either in terms of overall amount or location.

Discussion

XIII. a) The proposed project is not anticipated to generate any significant effects, either direct or indirect, on the district's population or population distribution as no additional workers are anticipated to be required to comply with PAR 1107. The human population within the jurisdiction of the SCAQMD is anticipated to grow regardless of implementing PAR 1107. As a result, PAR 1107 is not anticipated to generate any significant adverse effects, either direct or indirect, on population growth in the district or population distribution.

XIII. b) Because PAR 1107 affects the formulations of metal coatings used at existing industrial, commercial, and institutional facilities, PAR 1107 is not expected to result in the creation of any industry that would affect directly or indirectly induce the construction of single- or multiple-family units, or require the displacement of people elsewhere.

Based upon these considerations, significant population and housing impacts are not expected from implementing PAR 1107, and thus, this topic will not be further analyzed in the Draft EA. Since no significant population and housing impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XIV. PUBLIC SERVICES. Would the proposal result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:				
a) Fire protection?	☐	☐	☐	☑
b) Police protection?	☐	☐	☐	☑
c) Schools?	☐	☐	☐	☑
d) Other public facilities?	☐	☐	☐	☑

Significance Criteria
Impacts on public services will be considered significant if the project results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time or other performance objectives.

Discussion

XIV. a) & b) At many of the affected facilities, current formulations of metal coating materials in use contain flammable chemicals such as ethylbenzene, formaldehyde, MEK, MIBK, toluene, triethylamine, 1,2,4-trimethylbenzene, and xylene. While there are no provisions in PAR 1107 that would require the total volume of metal coatings currently used by affected facilities to change, the use of new compliant formulations of metal coatings may alter the chemical constituents of the solvents used in these operations. For example, future compliant products can be formulated by using higher solids content materials or by using waterborne or exempt products such as t-BAc, DMC, or acetone which are also flammable.

Because PAR 1107 has the potential to result in reformulated metal coatings used at existing affected facilities that may be more flammable than existing formulations, if facility operators use metal coatings that are reformulated with chemicals that are more flammable than previous chemicals in use, modifications to hazards permits issued by the local fire departments may be necessary.

Nonetheless, even though facilities may switch to using reformulated metal coatings, the overall amount of usage at any one facility over current levels is not expected to change to the extent that would increase the need for additional fire department personnel.

Furthermore, additional inspections, beyond the annual business inspections that currently occur at affected facilities, associated with the use of the new compliant formulations by city building departments or local fire departments are not expected to be necessary because most compliant coatings will generally be functionally similar to existing coatings. However, if a facility needs to modify its fire permit and the modification would require an inspection by the fire department, the additional inspections would not increase the need for additional fire department personnel. Lastly, even though facility operators may change to reformulated coatings, the probability of accidental releases of metal coatings occurring is not expected to change from the existing baseline.

Thus, the proposed project is not expected to increase the need or demand for additional public services staffing (e.g., fire and police departments) above current levels. In the event of an accidental release of either the existing metal coatings or reformulated metal coatings, fire departments are typically first responders for control and clean-up and police may be need to be available to maintain perimeter boundaries. Finally, PAR 1107 is not expected to have any adverse effects on local police departments because enforcement of the rule will be the responsibility of the SCAQMD.

XIV. c) The local labor pool (e.g., workforce) of particular affected facility areas is expected to remain the same since PAR 1107 would not trigger any changes to current production requirements at metal coating facilities. Therefore, with no increase in local population anticipated, no significant adverse impacts are expected to local schools.

XIV. d) The proposed project will result in the use of new compliant formulations of metal coatings. Besides the SCAQMD's filing program, or permitting the equipment or altering permit conditions, there is no other need for government services. PAR 1107 would not result in the need for new or physically altered government facilities in order to maintain acceptable service ratios, response times, or other performance objectives. As mentioned in XIV. C), there will be no increase in population and, therefore, no need for physically altered government facilities.

Based upon these considerations, significant public services impacts are not expected from implementing PAR 1107, and thus, this topic will not be further analyzed in the Draft EA. Since no significant public services impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XV. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☑
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment or recreational services?	☐	☐	☐	☑

Significance Criteria

Impacts to recreation will be considered significant if:

- The project results in an increased demand for neighborhood or regional parks or other recreational facilities.
- The project adversely affects existing recreational opportunities.

Discussion

XV. a) & b) As discussed earlier under the topic of "Land Use and Planning," there are no provisions in the PAR 1107 that would affect land use plans, policies, or regulations. Land use and other planning considerations are determined by local governments and no land use or planning requirements will be altered by the changes proposed in PAR 1107. The proposed

project would not increase the demand for or use of existing neighborhood and regional parks or other recreational facilities or require the construction of new or expansion of existing recreational facilities that might have an adverse physical effect on the environment because it will not directly or indirectly increase or redistribute population.

Based upon these considerations, significant recreation impacts are not expected from implementing PAR 1107, and thus, this topic will not be further analyzed in the Draft EA. Since no significant recreation impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVI. SOLID/HAZARDOUS WASTE. Would the project:				
a) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☑
b) Comply with federal, state, and local statutes and regulations related to solid and hazardous waste?	☐	☐	☐	☑

Significance Criteria

The proposed project impacts on solid/hazardous waste will be considered significant if the following occurs:

- The generation and disposal of hazardous and non-hazardous waste exceeds the capacity of designated landfills.

Discussion

XVI. a) & b) There are no solid or hazardous waste impacts associated with PAR 1107 because the primary focus of the proposed project would merely lower the VOC content limits for certain metal coatings. While compliance with PAR 1107 could mean reformulating metal coatings, no change in the amount of solid or hazardous waste streams at existing facilities using these coating is expected to occur since the reformulated metal coatings will replace in kind the previous metal coatings. For this reason, PAR 1107 is also not expected to require additional waste disposal capacity.

Operators of existing facilities that currently use metal coatings are already required to comply with existing federal, state, and local regulations for solid and hazardous waste handling and disposal. Because the main objective of PAR 1107 is to lower the VOC content for certain metal coatings, these existing facilities may switch to using the reformulated coatings. Nonetheless, the use of reformulated coatings will continue to be subject to the existing federal, state, and local regulations for solid and hazardous waste handling and disposal provided that they contain chemicals that are also subject to these regulations. Thus, implementation of PAR 1107 is not

expected to interfere or undermine a facility's ability to comply with existing federal, state, and local regulations for solid and hazardous waste handling and disposal.

Based upon these considerations, significant solid/hazardous waste impacts are not expected from implementing PAR 1107, and thus, this topic will not be further analyzed in the Draft EA. Since no significant solid/hazardous waste impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION/TRAFFIC. Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☑
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☑
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☑
d) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	☐	☐	☐	☑
e) Result in inadequate emergency access?	☐	☐	☐	☑

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☑

Significance Criteria

Impacts on transportation/traffic will be considered significant if any of the following criteria apply:

- Peak period levels on major arterials are disrupted to a point where level of service (LOS) is reduced to D, E or F for more than one month.
- An intersection's volume to capacity ratio increase by 0.02 (two percent) or more when the LOS is already D, E or F.
- A major roadway is closed to all through traffic, and no alternate route is available.
- The project conflicts with applicable policies, plans or programs establishing measures of effectiveness, thereby decreasing the performance or safety of any mode of transportation.
- There is an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system.
- The demand for parking facilities is substantially increased.
- Water borne, rail car or air traffic is substantially altered.
- Traffic hazards to motor vehicles, bicyclists or pedestrians are substantially increased.
- The need for more than 350 employees
- An increase in heavy-duty transport truck traffic to and/or from the facility by more than 350 truck round trips per day
- Increase customer traffic by more than 700 visits per day.

Discussion

XVII. a) & b) PAR 1107 affects VOC content limits of coatings used in metal coatings operations. Affected facilities are expected to replace their existing metal coatings with reformulated metal coatings while maintaining "business as usual." Deliveries of the reformulated coatings are expected to offset deliveries of the existing coatings, so no changes to product delivery trips are expected. Also, as mentioned previously in Section XIII, no additional workers are anticipated to be required to comply with PAR 1107. Thus, because the delivery trips and the trips associated with the existing work force at each affected facility are not expected to change, PAR 1107 has no potential to change or require additional transportation demands or services. In addition, PAR 1107 would not conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

Therefore, since no additional trips are anticipated, implementation of PAR 1107 is not expected to significantly adversely affect circulation patterns on local roadways or the level of service at intersections near affected facilities.

XVII. c) Though some of the facilities that will be affected by the proposed project may be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, actions that would be taken to comply with the proposed project, applying reformulated metal coatings at existing facilities, are not expected to significantly influence or affect air traffic patterns because: 1) the height and appearance of the existing structures at each affected facility are not expected to change; and, 2) the metal coating operations are conducted inside the buildings. For these reasons, implementation of PAR 1107 would not be expected to affect navigable air space. Thus, the proposed project would not result in a change in air traffic patterns including an increase in traffic levels or a change in location that results in substantial safety risks.

XVII. d) & e) The siting of each affected facility is consistent with surrounding land uses and traffic/circulation in the surrounding areas of the affected facilities. Thus, the proposed project is not expected to substantially increase traffic hazards, create incompatible uses at or adjacent to the affected facilities. Further, PAR 1107 is not expected to require a modification to circulation, thus, no long-term impacts on the traffic circulation system are expected to occur. The proposed project is not expected to involve the construction of any roadways, so there would be no increase in roadway design feature that could increase traffic hazards. Emergency access at each affected facility is not expected to be impacted by the proposed project because each affected facility is expected to continue to maintain their existing emergency access gates.

XVII. f) PAR 1107 will involve existing metal coating facilities with no facility modifications or changes expected. For this reason, implementing the proposed project is not expected to conflict with policies supporting alternative transportation since PAR 1107 does not involve any physical changes that would affect streets and alternative transportation modes (e.g., bicycles or buses).

Based upon these considerations, significant transportation/traffic impacts are not expected from implementing PAR 1107, and thus, this topic will not be further analyzed in the Draft EA. Since no significant transportation/traffic impacts were identified, no mitigation measures are necessary or required..

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☑
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	☑	☐	☐	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☑	☐	☐	☐

Discussion

XVIII. a) The proposed project is not expected to reduce or eliminate any plant or animal species or destroy prehistoric records of the past. As indicated in the biological resources discussion, each site affected by the proposed project is part of an existing facility, which has been previously graded, such that the proposed project is not expected to extend into environmentally sensitive areas.

XVIII. b) The Environmental Checklist indicates that the proposed project has potentially significant adverse impacts on air quality and hazards and hazardous materials. The potential for cumulative impacts on these resources will be evaluated in the Draft EA.

XVIII. c) Even though the objective of the proposed project is to reduce VOC emissions from metal coatings, the proposed project may result in secondary effects, emissions of toxic air contaminants, and may also increase the hazards at some of the affected facilities. The potential for these impacts to have adverse impacts on human beings, either directly or indirectly, will be evaluated in the Draft EA.

APPENDIX A

Proposed Amended Rule 1107 – Coating of Metal Parts and Products

(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)
(Proposed Amended Rule)
062012

PROPOSED AMENDED RULE 1107. COATING OF METAL PARTS AND PRODUCTS

(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 is applicable ~~applies~~ to ~~all~~ any person who performs metal coating~~s~~ or metal stripping operations in the District, and any person who supplies, sells, offers for sale or specifies any metal coating or stripper in the District, ~~except those performed~~excluding those used for ~~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~~ architectural 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/marking 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 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 chemical reaction without participating in that reaction or changing during the course of 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) 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) 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.

(17) EXEMPT COMPOUNDS (see Rule 102-Definition of Terms).

(18) EXTREME HIGH-GLOSS COATING is a coating which, when tested by the American Society for Testing Material (ASTM) Test Method D-523 adopted in 1980, shows a reflectance of 75 or more on a 60° meter. Effective January 1, 2015, an Extreme High-Gloss coating shall be defined as a coating that shows a reflectance of 85 or more on a 60° meter.

(19) EXTREME-PERFORMANCE COATING is a coating used on a metal surface where the coated surface is, in its intended use, subject to one or more of 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. To qualify, the coating must, when tested by ASTM D4060 using a CS 10 wheel with a 1,000 gram load, lose less than 50 mg of coating after 1,000 cycles~~including mechanical wear and repeated scrubbing with industrial grade solvents, cleansers or scouring agents.~~; or

(D) Multi-substrate metal and carbon composite surfaces; or

(E) Other operations as approved by the Executive Officer, or designee.

To qualify as an Extreme-Performance Coating, the applicant shall request and receive written approval written approval of a plan, which is subject to all the provisions of Rule 221 – Plans and Rule 306 – Plan Fees, to the Executive Officer, prior to application of such coating, and show that the intended use of each coated object would require coating with an extreme-performance coating pursuant to subdivision (i).

(20) 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.

(21) 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:

$$\text{Grams of VOC per Liter of Coating Less Water and Less Exempt Compounds} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

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

(22) 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

(23) GRAPHIC ARTS COATINGS (Sign Paints) are coatings, excluding materials subject to Rule 1130, formulated for hand-application by artists using brush or roller techniques to indoor and outdoor signs (excluding structural components) and murals, and include lettering enamels, poster colors, copy blockers, and bulletin enamels.

(~~24~~24) 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.

(~~24~~25) 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.

(~~25~~26) HEAT-RESISTANT COATING is a coating that must withstand a temperature of at least 400°F during normal use.

(~~26~~27) 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 number AAMA 605.2-1980.

(~~27~~28) HIGH-TEMPERATURE COATING is a coating that is certified to withstand a temperature of 1000°F for 24 hours.

(~~28~~29) 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.

(~~29~~30) INK is a fluid that contains dyes and/or colorants and is used to make markings but not to protect surfaces.

(31) LACQUERS are clear or opaque coatings formulated with nitrocellulose or synthetic resins that dry by solvent evaporation without chemical reaction and can re-dissolve in solvent.

(~~30~~32) MAGNETIC DATA STORAGE DISK COATING is a coating used on a metal disk which stores data magnetically.

(33) METAL COATINGS are coatings applied or intended to be applied to metal parts or products.

(~~31~~34) METAL PARTICLES are pieces of an elemental pure metal or a combination of elemental metals.

(~~32~~35) 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.

(~~33~~36) METALLIC COATING is a coating which contains more than 5 grams of metal particles per liter of coating, as applied.

(~~34~~37) MIL is 0.001 inch.

(~~35~~38) 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.

(~~36~~39) 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.

(~~37~~40) 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.

(~~38~~41) 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.

(~~39~~42) 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.

(~~40~~43) 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.

(~~41~~44) 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.

(45) PERSON (see Rule 102-Definition of Terms).

(~~42~~46) 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.

(~~43~~47) 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.

(~~44~~48) PREFABRICATED ARCHITECTURAL COMPONENT COATINGS are coatings applied to metal parts and products ~~which~~ that are to be used as ~~an~~ architectural structures or their appurtenances including, but not limited to: hand railings, cabinets, bathroom and kitchen fixtures, fences, rain-gutters and down-spouts, window screens, lamp-posts, heating and air conditioning equipment, other mechanical equipment and large fixed stationary tools.

(~~45~~49) 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.

(~~46~~50) 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. 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:

$$\text{Grams of VOC per Liter of Coating Less Water and Less Exempt Compounds} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

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

(~~47~~51) REPAIR COATING is a coating used to recoat portions of a part or product which has sustained mechanical damage to the coating ~~following normal painting operations~~ after it has fully cured.

(~~48~~52) 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.

(~~49~~53) SAFETY-INDICATING COATING is a coating which changes physical characteristics, such as color, to indicate unsafe conditions.

(~~50~~54) 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.

(~~51~~55) SOLAR-ABSORBENT COATING is a coating which has as its prime purpose the absorption of solar radiation.

(~~52~~56) 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.

(~~53~~57) 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.

(58) STRIPPING is the removal of cured coatings, cured inks, or cured adhesives.

(59) SUPER-COMPLIANT MATERIAL is any material containing 50 grams or less of VOC per liter of material.

(~~54~~60) 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.

(~~55~~61) TOUCH-UP COATING is a coating used to cover minor coating imperfections appearing after the ~~main coating operation~~original coating has fully cured.

(~~56~~62) 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.

(63) ULTRAVIOLET THIN-FILM COATING is UV-radiation curable coating less than 15 micrometers in thickness consisting of acrylate monomers, oligomers, and blends which are not subjected to a pre-cure water or solvent drying step. The VOC content may be determined by manufacturers using ASTM Test Method 7767-11 Standard Test Method to Measure Volatiles from Radiation Curable Acrylate Monomers, Oligomers, and Blends and Thin Coatings Made from Them.

(~~57~~64) 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~~65) VOLATILE ORGANIC COMPOUND (VOC) (see Rule 102-Definition of Terms).

(66) WATERBORNE COATING is any coating which contains more than 5 percent water by weight in its volatile fraction, as applied.

(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, or

(H) Application equipment as approved by the Executive Officer, or designee, provided that the applicator submits and receives written approval of a plan, which is subject to all the provisions of Rule 221 – Plans and Rule 306 – Plan Fees, to the Executive Officer, prior to application of such coating, and demonstrates that the use of HVLP spray equipment would result in greater emissions. The approval shall be limited to those coatings listed in the approved plan.

(2) VOC Content of Coatings

(A) Until December 31, 2014, ~~A~~ a person shall not apply any coating ~~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~~that contains VOC in excess of the limits specified in Table 1 below:

Table 1 – Coating Categories and VOC Limits

VOC LIMITS Less Water and Less Exempt Compounds Effective ~~Dates~~Until 12/31/2014								
Coating	Air-Dried				Baked			
	gm/l		lb/gal		gm/l		lb/gal	
	~~Current~~	~~7/1/07~~	~~Current~~	~~7/1/07~~	~~Current~~	~~7/1/07~~	~~Current~~	~~7/1/07~~
General One-Component[1]	275	~~275~~	2.3	~~2.3~~	275	~~275~~	2.3	~~2.3~~
General Multi-Component[1]	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	~~340~~	~~3.5~~2.8	~~2.8~~	360	~~360~~	3.0	~~3.0~~
Metallic	420	~~420~~	3.5	~~3.5~~	420	~~420~~	3.5	~~3.5~~
Extreme Performance	420	~~420~~	3.5	~~3.5~~	360	~~360~~	3.0	~~3.0~~
Prefabricated Architectural One-Component	~~420~~275	~~275~~	~~3.5~~2.3	~~2.3~~	275	~~275~~	2.3	~~2.3~~
Prefabricated Architectural Multi-Component	~~420~~340	~~340~~	~~3.5~~2.8	~~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	~~420~~	3.5	~~3.5~~
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~~

[1] Lacquers currently under General One-Component and General Multi-Component categories.

VOC LIMITS (Continued) Less Water and Less Exempt Compounds Effective ~~Dates~~Until 12/31/2014								
Coating	Air-Dried				Baked			
	gm/l		lb/gal		gm/l		lb/gal	
	~~Current~~	~~7/1/07~~	~~Current~~	~~7/1/07~~	~~Current~~	~~7/1/07~~	~~Current~~	~~7/1/07~~
High-Temperature	420		3.5		420		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~~
Graphic Arts	500		4.2		500		4.2	

(B) Effective January 1, 2015, a person shall not apply any coating subject to this rule that contains VOC in excess of the limits specified in Table 2 below:

Table 2 – Coating Categories and VOC Limits

Coating	Air-Dried		Baked	
	gm/L (lb/gal)		gm/L (lb/gal)	
	1/1/2015	1/1/2018	1/1/2015	1/1/2018
General	150 (1.3)	100 (0.8)	150 (1.3)	100 (0.8)
General (waterborne)	275 (2.3)*	200 (1.6)**	275 (2.3)*	200 (1.6)**
Lacquer	275 (2.3)	275 (2.3)	275 (2.3)	275 (2.3)
Military Specification	340 (2.8)	340 (2.8)	275 (2.3)	275 (2.3)
Etching Filler	420 (3.5)	420 (3.5)	420 (3.5)	420 (3.5)
Solar-Absorbent	420 (3.5)	420 (3.5)	360 (3.0)	360 (3.0)
Heat-Resistant	420 (3.5)	420 (3.5)	360 (3.0)	360 (3.0)
Extreme High-Gloss	340 (2.8)	340 (2.8)	360 (3.0)	360 (3.0)
Metallic	420 (3.5)	420 (3.5)	420 (3.5)	420 (3.5)
Extreme Performance	420 (3.5)	420 (3.5)	360 (3.0)	360 (3.0)
Touch Up	420 (3.5)	420 (3.5)	360 (3.0)	360 (3.0)
Repair	420 (3.5)	420 (3.5)	360 (3.0)	360 (3.0)
Silicone Release	420 (3.5)	420 (3.5)	420 (3.5)	420 (3.5)
High-Performance Architectural	420 (3.5)	420 (3.5)	420 (3.5)	420 (3.5)
Camouflage	420 (3.5)	420 (3.5)	420 (3.5)	420 (3.5)
Vacuum-Metalizing	420 (3.5)	420 (3.5)	420 (3.5)	420 (3.5)
Mold-Seal	420 (3.5)	420 (3.5)	420 (3.5)	420 (3.5)
High-Temperature	420 (3.5)	420 (3.5)	420 (3.5)	420 (3.5)
Electric-Insulating Varnish	420 (3.5)	420 (3.5)	420 (3.5)	420 (3.5)
Pan Backing	420 (3.5)	420 (3.5)	420 (3.5)	420 (3.5)
Pretreatment Coatings	420 (3.5)	420 (3.5)	420 (3.5)	420 (3.5)
Graphic Arts	150 (1.3)	150 (1.3)	150 (1.3)	150 (1.3)

*Must also have a material VOC less than 150 g/L (1.3 lb/gal)
**Must also have a material VOC less than 100 g/L (0.8 lb/gal)

(3) Effective November 2, 2012, tertiary-butyl acetate (t-BAc) and dimethyl carbonate (DMC) shall be considered exempt compounds in determining compliance with the VOC content requirements in subparagraphs (c)(2)(A) and (c)(2)(B), provided the application of t-BAc and DMC-containing coating is done in a District-permitted spray booth or in a District-permitted fully enclosed area where an exhaust fan discharges the

exhaust air from the equipment to the outside of the building, operated in accordance with all permit conditions~~;~~ and the following:

(A) Facilities that emit 560 pounds or more per year of t-BAc or 180,000 pounds or more per year of DMC shall apply and obtain an approved permit to operate or modified permit to operate prior to emitting more than the above threshold in any consecutive 12 month period. The permit shall not be issued unless the following criteria are met:

(i) Limit any increase in maximum individual cancer risk to less than ten in one million (10×10^{-6}) at any off-site receptor location; and

(ii) Limit any cumulative increase in total chronic hazard index for any target organ system to less than 1.0 at any off-site receptor location; and

(iii) Limit any cumulative increase in total acute hazard index for any target organ system to less than 1.0 at any off-site receptor location;

Calculations to determine maximum individual cancer risk, total chronic hazard index and total acute hazard index shall follow the Risk Assessment Procedures for Rules 1401 and 212 and using an inhalation cancer potency of 2.0E-03 and an acute reference exposure limit (REL) of 10,000 microgram/meter^3 for t-BAc and using an acute REL of 18,000 microgram/meter^3 and a chronic REL of 5,500 microgram/meter^{3}for DMC; and

(B) Facilities that emit less than 560 pounds per year of t-BAc or less than 180,000 pounds of DMC shall file with the District in accordance with subdivision (m) of this rule. Any person using a coating or solvent containing DMC or t-BAc shall maintain records pursuant to paragraph (j)(2).

T-BAc will continue to be considered a VOC for purposes of all recordkeeping and emissions reporting which apply to VOCs.

(~~3~~4) 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~~5) 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.

(~~5~~6) 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~~7) All VOC containing coatings shall be stored in non-absorbent, non-leaking containers which shall be kept closed at all times except when in use. ~~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~~8) 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 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 VOC by volume calculated as carbon with no dilution; and

(B) the owner/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 Specification~~s~~ and Sale

~~A person shall not specify the use in the District 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.~~

(1) Effective January 1, 2015, except as provided in subdivision (f) and paragraphs (d)(2) and (d)(3), a person shall not supply, sell, distribute, offer for sale or specify for use, any metal coating in the District that, at the time of manufacture, contains VOC in excess of the applicable limit specified in paragraph (c)(2). The requirements of this paragraph shall apply to all written and oral contracts.

(2) Effective January 1, 2015, a person shall not supply, sell, offer for sale or specify any metal coating to an end user that contains DMC or t-BAC prior to verifying compliance with paragraph (c)(3) by obtaining a copy of the permit or applicable filing issued by or filed with the District in accordance with paragraph (c)(3).

(3) Effective January 1, 2014, a person shall not supply, sell, offer for sale, specify or apply any metal coating or stripper subject to this rule that contains in the excess of 0.1% by weight any Group II exempt compounds listed in Rule 102. Cyclic, branched, or linear, completely methylated siloxanes (VMS) are not subject to this prohibition.

(4) Paragraphs (d)(1), (d)(2) and (d)(3) shall not apply to the following:

(A) Metal coatings manufactured, formulated, repackaged, shipped, supplied or sold to a person for use outside the SCAQMD; or

(B) Metal coatings for use at a facility that certifies having pollution control equipment in compliance with the requirements of paragraph (c)(8); or

(C) Any person who sells a metal coating provided the coating was sold to an independent distributor or another manufacturer for repackaging provided that the recipient was informed in writing by the manufacturer or supplier of the condition that the metal coating is not to be used in the District or that the metal coating does not comply with the VOC limits in paragraph (c)(2); or

(D) Any metal coating that is labeled for use on metal surfaces subject to another Regulation XI rule for coatings or labeled for multiple substrates, provided that the coating complies with the applicable

requirements of the labeled Regulation XI rule for coatings. Information regarding use on multiple substrates may be given on a data sheet; or

(E) Any metal coating that is labeled and supplied, sold, or offered for sale as an architectural coating that complies with Rule 1113; or

(F) Any metal coating that is sold to a purchaser who agrees in writing to comply with all applicable District rules prior to sale.

(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 by the Executive Officer, United States Environmental Protection Agency (USEPA), and the California Air Resources Board (CARB).

(1) Determination of VOC content

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

(A) USEPA Reference Method 24 (Code of Federal Regulations Title 40 Part 60, Appendix A). The exempt solvent content shall be determined by SCAQMD Method 303 (Determination of Exempt Compounds) contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual; or,

(B) SCAQMD Method 304 [Determination of Volatile Organic Compounds (VOCs) in Various Materials] contained in the SCAQMD "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 (c), only when manufacturers specify which individual

compounds are used in the coating formulation. In addition, the manufacturers must identify the USEPA, CARB, and the SCAQMD 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 by ASTM Test Method D1613.

(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) SCAQMD Method 318 (Determination of Weight Percent of Elemental Metal in Coatings by X-ray Defraction Method) contained in the SCAQMD "Laboratory Method of Analysis of Enforcement Samples" manual for coatings containing elemental aluminum metal; or

(B) SCAQMD Method 311 (Analysis of Percent Metal in Metallic Coatings by Spectrographic Method) contained in the SCAQMD "Laboratory Method of Analysis of 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~~8), shall be determined by the procedures presented in the USEPA technical guidance document, "Guidelines for Determining Capture Efficiency, January 9, 1995." Notwithstanding the test methods specified by the Guidelines, any other method approved by the USEPA, CARB, and the SCAQMD Executive Officer may be substituted.

(B) The efficiency of the control device of the emission control system as specified in paragraph (c)(~~7~~8) and the VOC content in the control device exhaust gases, measured and calculated as carbon, shall be determined by the USEPA Test Methods 25, 25A, SCAQMD Method 25.1 (Determination of Total Gaseous Non-Methane Organic Emissions as Carbon), or SCAQMD Method 25.3 (Determination of Low Concentration Non-Methane Non-Ethane Organic Compound Emissions from Clean Fueled

Combustion Sources) as applicable. USEPA Test Method 18, or ARB Method 422 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 SCAQMD method "Spray Equipment Transfer Efficiency Test Procedure for Equipment User," May 24, 1989.

(7) Metal coating viscosity shall be determined by ASTM D 1200-10 Standard Test Method for Viscosity by Ford Viscosity Cup.

(8) Metal coating gloss shall be determined by ASTM Test Method D 523-80 Standard Test Method for Specular Gloss.

(f) Exemptions

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

(A) Stencil coatings;

(B) Safety-indicating coatings;

(C) Magnetic data storage disk coatings;

(D) Solid-film lubricants;

(E) Electric-insulating and thermal-conducting coatings.

(2) The provisions of paragraphs (c)(1) and (d)(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), (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~~4) The provisions of paragraphs (c)(1), (c)(2), (d)(1) and (d)(2) of this rule shall not apply to aerosol coating products.

(~~6~~5) The provisions of paragraphs (c)(2), (c)(3), (d)(1), (d)(2) and (j)(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~~6) 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~~7) 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 (j)(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 exceed 4 tons in any calendar year, including emissions from the Super Compliant Material, as demonstrated by annual purchase records.

(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.

(h) Alternative Emission Control Plan

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

(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.~~ The Any request to classify a material as an Extreme Performance Coating pursuant to subpargraph (b)(19)(E) must include, at a minimum, the following information:

(1) Name, Location and SCAQMD Facility ID;

(2) Material Safety Data Sheet of requested Extreme-Performance Coating;

(3) Volume of requested Extreme Performance Coating used;

(4) Description of process including products and parts coated;

(5) List of equipment utilizing the requested Extreme Performance Coating;

(6) Calculation of emissions from the requested Extreme Performance Coating operation; and

(7) Explanation why an Extreme Performance Coating is necessary.

(j) Recordkeeping and Reporting

(1) Records of coating and solvent usage shall be maintained pursuant to Rule 109.

(2) Any person using a coating or solvent containing DMC or t-BAc shall maintain daily records of operations for the most recent two (2) year period. The records shall be retained on the premises of the affected operation for a period of not less than two (2) years unless a longer time period is specified in an applicable rule or permit. Said records shall be made available to the District upon request. The records shall include, but not be limited to, the following:

(A) a list of the permit units involved in the operation(s) using DMC or t-BAc;

(B) the amount and type of coating (including catalyst and reducer), and/or solvent used in each permit unit; and

(C) the DMC and t-BAc content in each coating as applied (including catalyst and reducer), and/or solvent.

(3) Any person using a coating or solvent containing t-BAc shall submit an annual report in an electronic format approved by the Executive Officer within 90 days after the reporting year.

(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 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.

(l) Sell-Through and Use-Through Provision

Any metal coating that is manufactured prior to the effective date of the applicable limit, and that has a VOC content above that limit (but not above the limit in effect on the date of manufacture), may be sold, supplied, offered for sale, or applied for up to twelve months after the specified effective date.

(m) Filing Process

Facilities that file with the District for the purposes of using DMC and/or t-BAc containing products may do so by submitting the complete and applicable information required

(1) SCAQMD ID number;

(2) Applicable permit number(s);

(3) Product name(s), t-BAc and/or DMC content, and maximum annual use for each coating.

(n) Fees

The operator of any activity or facility subject to filing pursuant to this rule shall be subject to a one-time fee equivalent to the plan submittal fee in accordance with Rule 306 (c) at the time of filing.