

# SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

## **Final Environmental Assessment:**

### **Proposed Amended Rule 1145 – Plastic, Rubber, Leather and Glass Coatings**

**November 2009**

**SCAQMD No. 090618JK  
SCH No. 2009061081**

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## PREFACE

This document constitutes the Final Environmental Assessment (EA) for Proposed Amended Rule (PAR) 1145 – Plastic, Rubber, and Glass Coatings. The Draft EA was released for a 30-day public review and comment period from June 30, 2009, to July 29, 2009. Three comment letters were received from the public. The comment letters and responses to comments are included in Appendix C.

Subsequent to the public comment period for the Draft EA, and as a result of comments received from the public, a technical assessment was performed on low-VOC, ultra-violet (UV) coatings for refrigerated glass doors. Specifically, the technical assessment was performed to address concerns raised in comment letters on the draft EA and at the July 24, 2009, Stationary Source Committee Meeting. At the meeting, three members of the UV coating industry requested additional adhesion testing for UV coatings, asserting that compliant refrigerated glass door coatings that would meet performance specification were available. Subsequent testing conducted pursuant to ASTM D 3359-97 adhesion test revealed that the adhesion ratings of the UV coatings provided by the UV coating representatives did not meet the affected facility operator's performance requirement, which is met by the current two-component coating system used by the facility. A detailed summary of the request for adhesion testing and the adhesion testing itself is provided in the response to comment letter #1 in Appendix C of this document. Since no alternative refrigerated glass door coatings were found that meet the current two-component coating VOC content limit of one pound per gallon in Rule 1145, SCAQMD staff continues to propose adding a new refrigerated glass door coating category with a VOC limit of 480 grams per liter to Rule 1145.

To facilitate identification, modifications to the document are included as underlined text and text removed from the document is indicated by ~~strike through~~. None of the modifications alter any conclusions reached in the Draft EA, nor provide new information of substantial importance relative to the Draft document. As a result, these minor revisions do not require recirculation of the document pursuant to CEQA Guidelines §15073.5. This document constitutes the Final EA for PAR 1145 – Plastic, Rubber, and Glass Coatings.

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## **CHAPTER 1 - PROJECT DESCRIPTION**

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**Introduction**

**California Environmental Quality Act**

**Project Location**

**Project Objective**

**Project Background**

**Project Description**

**Emissions Inventory**

## **INTRODUCTION**

The California Legislature created the South Coast Air Quality Management District (SCAQMD) in 1977<sup>1</sup> 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 (collectively known as the “district”). By statute, the SCAQMD is required to adopt an air quality management plan (AQMP) demonstrating attainment of all federal and state ambient air quality standards for the district<sup>2</sup>. Furthermore, the SCAQMD must adopt rules and regulations that carry out the AQMP<sup>3</sup>. The 2007 AQMP concluded that major reductions in emissions of volatile organic compounds (VOCs) 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). Ozone, a criteria pollutant, is formed when VOCs react with NOx in the atmosphere and has been shown to adversely affect human health. VOC emissions also contribute to the formation of PM10 and PM2.5. The federal one-hour and eight-hour ozone standards were exceeded in all four counties and in the Salton Sea Air Basin in 2007. The Central San Bernardino Mountain area recorded the greatest number of exceedences of the one-hour state standard (67 days), eight-hour state standard (115 days), eight-hour federal standard (59 days), as well as, health advisory days (four days). Altogether, in 2007, the South Coast Air Basin exceeded the federal eight-hour standard on 79 days, the state one-hour standard on 96 days, and the state eight-hour standard on 128 days.

Rule 1145 – Plastic, Rubber, and Glass Coatings, was originally adopted by the South Coast Air Quality Management District Governing Board on July 8, 1983, to regulate volatile organic compounds (VOC) emissions from plastic, rubber, and glass coating operations. The rule has been amended fifteen times since the adoption date of July 8, 1983, and this proposal would be the sixteenth amendment.

The proposed amendments to Rule 1145 are designed to: (1) revise the VOC content limit for the multi-colored coatings category and make it consistent with the September 2008 U.S. EPA Control Techniques Guidelines (CTG); (2) establish a new category for refrigerated glass door coatings for which a compliant product is currently not available; (3) update the rule with the deletion of paragraph (c)(3), this language is no longer necessary after the sunset date of June 30, 2008 of affected provisions in Rule 1151, and the clarification of the associated parts and components definition in Rule 1151; and (4) make minor clarifications and editorial corrections to the rule. The proposed project would, in part, implement 2007 AQMP control measure MCS-07 – Application of All Feasible Measures by lowering the multi-colored coating VOC content limit to be consistent with the existing USEPA CTG value.

The portion of the proposed amendment related to reducing the VOC content limit for the multi-colored category from 685 grams per liter VOC to 680 grams per liter VOC, is expected to generate a VOC reduction of approximately 0.4 pound per day (104 pounds per year).

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<sup>1</sup> The Lewis-Presley Air Quality Management Act, 1976 Cal. Stats., ch 324 (codified at Health & Safety Code, §§40400-40540).

<sup>2</sup> Health & Safety Code, §40460 (a).

<sup>3</sup> Health & Safety Code, §40440 (a).

A second component of the proposed amendment would create a new coating category, refrigerated glass door coatings, to be added to the Table of Standards in Rule 1145. This provision only applies to a single facility operator who has been using this coating under a Hearing Board Variance for the last two years. As per conditions of the Hearing Board Variance, SCAQMD staff has determined that the facility operator has been unable to identify a VOC compliant coating that would meet necessary refrigerated doors' performance standards. The refrigerated glass door coating operations are currently included in the two-component coating category with a VOC content limit of 120 grams per liter. The proposed refrigerated glass door coating category would be limited to 480 grams of VOC per liter and would allow the facility to continue existing operations after the variance expires. This new coating category would have no actual effect, because the facility operator is operating under a variance. However, there would be a marginal increase of emissions reported in the emissions inventory; SCAQMD staff calculated these VOC emissions reductions foregone to be approximately 2.1 pounds per day (540.5 pounds per year).

The third component of the proposed amendment seeks to delete paragraph (c)(3) in Rule 1145, which allows automotive coatings to be used on plastic, rubber, leather, and glass products to match the existing coating of a motor vehicle to meet the VOC content limits in Tables 1 and 2 of Rule 1157, providing that the applicator applied for and received written approval from the Executive Officer to use automotive coatings. This paragraph was placed into Rule 1145 on August 2, 1991, as a place holder until Rule 1151 could be clarified. Staff has determined that paragraph (c)(3) is now obsolete language since the provisions of Rule 1151 have sunset on June 30, 2008 and were replaced with amended language effective July 1, 2008. The new definition for Associated Parts and Components in the current version of Rule 1151 includes parts and components that are not attached to a motor vehicle or mobile equipment. Staff is removing paragraph (c)(3) in Rule 1145 since the current version of Rule 1151 clarifies that associated parts and components that are not attached to a motor vehicle or mobile equipment are subject to provisions of Rule 1151.

The combined total emissions for the proposed amendments to the multi-colored category and the addition of the refrigerated glass door coating are approximately 1.7 pounds per day (436.5 pounds per year) of VOC emission reductions foregone.

### **CALIFORNIA ENVIRONMENTAL QUALITY ACT**

Proposed Amended Rule (PAR) 1145 is a discretionary action, which has potential for resulting in direct or indirect change to the environment and, therefore, is considered a "project" as defined by the California Environmental Quality Act (CEQA). SCAQMD is the lead agency for the proposed project and has prepared this ~~draft~~ environmental assessment (EA) with no significant adverse impacts pursuant to its Certified Regulatory Program and SCAQMD Rule 1110. California Public Resources Code §21080.5 allows public agencies with regulatory programs to prepare a plan or other written document in lieu of an environmental impact report or negative declaration once the Secretary of the Resources Agency has certified the regulatory program. SCAQMD's regulatory program was certified by the Secretary of the Resources Agency on March 1, 1989, and is codified as SCAQMD Rule 110.

CEQA and Rule 110 require that potential adverse environmental impacts of proposed projects be evaluated and that feasible methods to reduce or avoid significant adverse environmental impacts of these projects be identified. To fulfill the purpose and intent of CEQA, the SCAQMD has prepared this ~~draft~~-final EA to address the potential adverse environmental impacts associated with the proposed project. The ~~draft~~-final EA is a public disclosure document intended to: (a) provide the lead agency, responsible agencies, decision makers and the general public with information on the environmental effects of the proposed project; and, (b) be used as a tool by decision makers to facilitate decision making on the proposed project.

SCAQMD's review of the proposed project shows that the proposed project would not have a significant adverse effect on the environment. Therefore, pursuant to CEQA Guidelines §15252, no alternatives or mitigation measures are required to be included in this ~~draft~~-final EA. The analysis in Chapter 2 supports the conclusion of no significant adverse environmental impacts.

The Draft EA was released for a 30-day public review and comment period from June 30, 2009 to July 29, 2009. Three comment letters were received from the public. The other letters are included with response to comments in Appendix C.

## **PROJECT LOCATION**

PAR 1145 would affect multi-colored and refrigerated glass door coating operations at affected facilities located throughout the SCAQMD's jurisdiction. The SCAQMD has jurisdiction over an area of 10,473 square miles, consisting of the four-county South Coast Air Basin (Basin) and the Riverside County portions of the Salton Sea Air Basin (SSAB) and the Mojave Desert Air Basin (MDAB). The Basin, which is a subarea of the district, is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The 6,745 square-mile Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The Riverside County portion of the SSAB and MDAB is bounded by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley. The federal non-attainment area (known as the Coachella Valley Planning Area) is a subregion of both Riverside County and the SSAB and is bounded by the San Jacinto Mountains to the west and the eastern boundary of the Coachella Valley to the east (Figure 1-1).

## **PROJECT OBJECTIVE**

The objectives of PAR 1145 are to reduce the multi-colored coating category VOC content limit to be consistent with the September 2008 USEPA CTG, establish a VOC content limit for refrigerated glass door coatings, and remove outdated rule language.

## **PROJECT BACKGROUND**

SCAQMD staff proposes to add a new coating category to Rule 1145 to be known as the refrigerated glass door coating category. Although there is only one facility that has this niche operation, it cannot meet the current VOC content limits in Rule 1145 for a two-component coating (the general two-component coating VOC content limit is 120 grams per liter), which is where the refrigerated glass door coating category is currently located. As a temporary compliance remedy, the facility operator filed and was granted a two-year variance by the SCAQMD Hearing Board. The variance was granted on December 19, 2007, as a Hearing Board Action Item and required the facility operator to meet increments of progress, which included the



testing of coatings that may be viable alternatives to currently used coatings. The facility operator is allowed to continue using the existing coating products that work without adhesion failures until December 31, 2009. SCAQMD staff and the facility operator have been working together since February 2008 and have determined that all alternative coatings tested failed to meet substrate adhesion requirements. The glass doors are manufactured as a triple plate glass assembly held together by a sealant that bonds the glass panels together and provides moisture prevention between the glass panels. Coatings are hand rolled along the edges of the large glass panes, approximately one inch wide, and serves as an opaque border to hide the undesirable rough edges of the glass panel, the hinges and related hardware, and to provide a substrate for the adhesive that is used to bond three glass panes together (sandwiched) to make one glass door assembly for refrigerated cabinets. These doors are commonly seen at grocery stores in the frozen foods aisles. When the coating fails, the seal fails, and the door is subject to replacement under the purview of the manufacturer's warranty.



**Figure 1-1**  
**Boundaries of the South Coast Air Quality Management District**

Several alternative coatings were tried as potential replacements for the existing coating including silk-screening, powder coating and photo-initiated ultraviolet (UV) coatings. The coatings were tested according to ASTM Method D 3389-97. The alternative coatings did not adequately adhere to the glass substrate and, as a result, adhesion to the glass panels was lost, which resulted in sealant failure between the glass panels. As a consequence, the glass door assemblies became defective while in service and required replacement under warranty.

SCAQMD staff reviewed the Standard Industrial Classification (SIC) codes<sup>4</sup> for glass door coating facility operations and compared them with existing permitted facilities within the SCAQMD's database and did not find other similar facility operators in the SCAQMD's jurisdiction that conduct this type of operation besides the variance applicant. Therefore, SCAQMD staff assumes that only one facility operator would be affected by the amendment to the refrigerated glass door coatings category.

## **PROJECT DESCRIPTION**

The following summarizes the proposed amended rule. A copy of PAR 1145 is included in Appendix A.

### Purpose and Applicability

No change.

### Definitions of Terms

A definition for refrigerated glass door would be added.

### Requirements

The VOC content limit for the multi-colored coatings category would be reduce from 685 grams per liter to 680 grams per liter. A refrigerated glass door coatings category was added with a VOC content limit of 480 grams per liter.

The existing rule contains VOC content limits by effective date. Since all effective dates have passed, the effective dates would be removed and only the current VOC content limits would be presented in the proposed amended rule.

The words "solvent cleaning operations; storage and disposal of VOC containing materials" would be removed from the paragraph (c)(2) title, since it is redundant with the language in the requirement.

The condition that allows the application of automotive coatings on plastics, rubber, leather or glass to match an existing coating on a motor vehicle, including any VOC containing materials added to the original coating supplied by the manufacturer, in excess of Table 1 (Group 1 Vehicles) and Table 2 (Group II Vehicles) of Rule 1151 is proposed to be deleted. The requirement was placed into the August 2, 1991 amendments of Rule 1145 at the time in anticipation of amendments to Rule 1151. The sunset date of June 30, 2008 in Rule 1151 has expired and new provisions for Rule 1151 have been implemented; therefore, this requirement is no longer needed.

### Recordkeeping Requirements

No change.

### Compliance Test Methods

No change.

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<sup>4</sup> See reference section for SIC code references

Alternative Emission Control

No change.

Prohibition of Specification and Sales

No change.

Rule 442 Applicability

No change.

Exemptions

The exemption for clear and translucent coatings included a reference that excluded coatings that are subject to automotive coatings on plastic, rubber, leather or glass to match existing coatings on a motor vehicle. Since the automotive coatings on plastic, rubber, leather or glass to match existing coatings on a motor vehicle requirement would be removed by the proposed project, this reference is no longer needed and would be removed.

A minor clarification was added to the exemption for individual coating categories used in volumes less than 50 gallons in any one year, provided that the total usage of all such coating s does not exceed 200 gallons per year, per facility. The amendment clarifies the need for written approval from the SCAQMD Executive Officer.

**EMISSIONS INVENTORY**

Rule 1145 applies to plastic, rubber, leather and glass coating operations. There are approximately 115 facilities that fall under the purview of Rule 1145 including: aerospace, automotive, electronic, and medical industries.

No sales-specific data are currently available to develop an emission inventory in terms of specific coating categories for Rule 1145. For this reason, the emissions inventory presented in the 2004 Staff Report for Rule 1145 was utilized. The 2004 Staff Report for Rule 1145 emission inventory was based on the results of a survey that was conducted by SCAQMD in late 2002 and on other verbal conversations with coatings suppliers. The 2002 survey included 58 facilities representing a diverse group of industries that perform Rule 1145 coating operations; from these data it was determined that the multi-colored coating category populated five percent of the total distribution studied for all affected coating categories. SCAQMD staff believes that this distribution for the multi-colored coating category continues to be accurate.

The emissions inventory for the Rule 1145 universe was provided by the SCAQMD Annual Emissions Reporting (AER) section. The total 2007 emission inventory for Rule 1145 was 0.49 ton (980 pounds) of VOC emissions per day.

**Multi-colored Coating Category**

Five percent of the total 2007 Rule 1145 VOC emissions inventory of approximately 986.2 pounds per day is from multi-colored coating category, which is 49 pounds per day.

### Refrigerated Glass Door Operations Category

This category was not identified in the November 2004 Staff Report for Rule 1145. Instead emissions from refrigerated glass door coating operations were a part of the general two-component coatings.

There are two coating systems that are currently used by the affected facility: the Nazdar and Enthone coating systems.

#### Nazdar Coating System

The Nazdar coating system is comprised of an epoxy screen ink, catalyst and thinner. SCAQMD staff reviewed usage records and found that the largest amount of the coating system applied occurred in 2007. To be conservative, VOC emissions were estimated from 2007 coating usage. Table 1-1 presents the usages and emissions.

#### Enthone Coating System

The Enthone coating system is also comprised of an epoxy screen ink, catalyst and thinner. SCAQMD staff reviewed usage records and found that the largest amount of the coating system applied occurred in 2007. To be conservative, VOC emissions were estimated from 2007 coating usage. Table 1-1 presents the usages and emissions.

**Table 1-1**  
**Refrigerated Glass Door Coating Usages and Emissions**

Coating System Component	2007 Usage, gal/year	Density, lb/gal	Emissions, lb/yr	Emissions, lb/day
<b>Nazdar</b>				
Ink	123.7	1.1	383.5	1.5
Catalyst	27.0	0.3	112.1	0.4
Thinner	25.4	0.6	205.2	0.8
<b>SubTotal</b>	<b>176.2</b>		<b>700.8</b>	<b>2.7</b>
<b>Enthone</b>				
Ink	5.0	3.64	18.2	0.07
Catalyst	0.5	0.83	0.4	0.002
Thinner	0.4	8.08	3.2	0.01
<b>SubTotal</b>	<b>5.9</b>		<b>21.8</b>	<b>0.08</b>
<b>Total</b>	<b>182</b>		<b>722.6</b>	<b>2.8</b>

Emissions, lb/year = usage, gal/year x density, lb/gal

Emissions, lb/day = (emissions, lb/year)/(260 day/year)

Therefore, the total usage from refrigerated glass door operations is 722.6 pounds of per year (2.8 pounds of VOC per day).

## **CHAPTER 2 - ENVIRONMENTAL CHECKLIST**

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**Introduction**

**General Information**

**Environmental Factors Potentially Affected**

**Determination**

**Environmental Checklist and Discussion**

## **INTRODUCTION**

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

## **GENERAL INFORMATION**

Project Title:	<del>Draft</del> Final Environmental Assessment (EA) for Proposed Rule (PAR) 1145 – Plastic, Rubber, Leather and Glass Coatings
Lead Agency Name:	South Coast Air Quality Management District
Lead Agency Address:	21865 Copley Drive Diamond Bar, CA 91765
CEQA Contact Person:	Mr. James Koizumi (909) 396-3234
PAR 1145 Contact Person	Mr. Don Hopps (909) 396-2334
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:	PAR 1145 would add a new coating category and associated VOC content limit for the refrigerated glass door coatings, align the VOC content limit for multi-colored coatings with USEPA's Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings and remove outdate rule language. This proposed amendment would, in part, implement control measure MCS-07 – Application of All Feasible Measures, of the 2007 AQMP.
Surrounding Land Uses and Setting:	Not applicable
Other Public Agencies Whose Approval is Required:	Not applicable

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED**

The following environmental impact areas have been assessed to determine their potential to be affected by the proposed project. As indicated by the checklist on the following pages, environmental topics marked with an "✓" 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.

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Aesthetics            | <input type="checkbox"/> Agriculture Resources         | <input checked="" type="checkbox"/> Air Quality                        |
| <input type="checkbox"/> Biological Resources  | <input type="checkbox"/> Cultural Resources            | <input type="checkbox"/> Energy  |
| <input type="checkbox"/> Geology/Soils         | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/<br>Water Quality                   |
| <input type="checkbox"/> Land Use/Planning     | <input type="checkbox"/> Mineral Resources             | <input type="checkbox"/> Noise   |
| <input type="checkbox"/> Population/Housing    | <input type="checkbox"/> Public Services               | <input type="checkbox"/> Recreation                                    |
| <input type="checkbox"/> Solid/Hazardous Waste | <input type="checkbox"/> Transportation/<br>Traffic    | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

**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 will be 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 18, 2009

Signature: Steve Smith

Steve Smith, Ph.D.  
Program Supervisor



## **ENVIRONMENTAL CHECKLIST AND DISCUSSION**

PAR 1145 is not expected to generate adverse environmental impacts. Multi-colored coating category facility operators are already using coatings that comply with USEPA's September 2008 CTG VOC content limit of 680 grams per liter. The reduction of the multi-colored coating category VOC content limit in the proposed amended rule from the current limit of 685 grams per liter to 680 grams per liter would provide consistency with EPA's existing CTG VOC content limit and allow the SCAQMD to take credit for VOC emission reductions that already have occurred. Since no physical changes would occur in operation at any affected facility, there would be no adverse environmental impacts from this proposed requirement.

PAR 1145 would create the refrigerated glass door coating category. This coating is current in the two-component category. This modification is considered to be necessary because no viable alternatives were found for this coating process that could comply with the general two-component coating VOC content limits. In practice, there would be no adverse environmental impacts from this amendment, since there would be no change in operations at the single facility that currently employs this coating process. However, since the current applicable VOC content limit, the general two-component coating category, is 120 grams per liter; the proposed amendment would result in VOC emissions reductions foregone (i.e., previously expected emissions would not be realized). Therefore, the addition of the refrigerated glass door coating category would result in adverse, but not significant, air quality impacts.

The removal of the rule language that restricts the application of automotive coatings on plastics, rubber, leather or glass to match existing coating of motor vehicles, including any VOC containing materials added to the original coating supplied by the manufacturer in excess of the VOC content limits in Tables 1 and 2 in Rule 1151 is not expected to have any environmental impact. The requirement was placed into Rule 1145 at the time in August 2, 1991 in anticipation of the amendments to Rule 1151. The change in the definition for associated parts and components in Rule 1151 added "elements of motor vehicles or mobile equipment that are not attached to motor vehicles or mobile equipment at the time of coating the structure, device, piece, module, section, assembly, subassembly, or element;" therefore, rule language that restricts the use of Rule 1151 coatings can be removed from Rule 1145. Adverse environmental impacts related to the amendments of Rule 1151 were evaluated in the Final EA for PAR 1151 Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations (SCAQMD No. 092705JK, November 2005).

All other proposed amendments would include only minor clarifications and grammatical or editorial corrections.

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

**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**

**Ia), b), c) & d)** PAR 1145 would not require any new development or require modifications to buildings or other structures to comply with the proposed VOC content limits for applicable plastic, rubber, leather and glass coatings. Since the proposed amendments are not expected to require construction or change operations at affected facilities; no change in aesthetics are expected.

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 VOC content requirements of the proposed amended rule, and the proposed amended rule does not require night time activities at affected facilities.

Based upon these considerations, significant adverse aesthetics impacts are not anticipated and will not be further analyzed in this ~~Draft~~ Final EA. Since no significant adverse aesthetics impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant Impact	No Impact
<b>II) AGRICULTURE RESOURCES.</b> Would the project:			
<b>II)</b> 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>II)</b> Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Significance Criteria**

Project-related impacts on agricultural 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 would involve changes in the existing environment, which due to their location or nature, could result in conversion of farmland to non-agricultural uses.

**II.a), b), & c)** PAR 1145 would not require any new development or require modifications to buildings or other structures to comply with the proposed VOC content limits for affected plastic, rubber, leather and glass coatings. No construction or change in operations is expected. All of the affected coating activities occur within existing structures, so new use designations, including agricultural designations, are not expected to be altered by the proposed project. Since no changes are expected, the proposed amended rule is not expected to convert any classification of farmland to non-agricultural use or conflict with zoning for agricultural use or a Williamson Act contract.

Based upon these considerations, significant agricultural resource impacts are not anticipated and will not be further analyzed in this ~~Draft~~ Final EA. Since no significant adverse agriculture resources impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant Impact	No Impact
<b>III. AIR QUALITY.</b> Would the project:			
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutant(s)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Air Quality Significance Criteria**

Attainment of the state and federal ambient air quality standards protects sensitive receptors and the public in general from the adverse effects of criteria pollutants which are known to have adverse human health effects. To determine whether or not air quality impacts from adopting and implementing the proposed amendments are significant, impacts are evaluated and compared to the criteria listed in Table 2-1. The project would 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  
Air Quality Significance Thresholds**

<b>Mass Daily Thresholds</b>		
<b>Pollutant</b>	<b>Construction</b>	<b>Operation</b>
NO <sub>x</sub>	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM <sub>10</sub>	150 lbs/day	150 lbs/day
SO <sub>x</sub>	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
<b>Toxic Air Contaminants (TACs) and Odor Thresholds</b>		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk $\geq$ 10 in 1 million Hazard Index $\geq$ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
<b>Ambient Air Quality for Criteria Pollutants<sup>a</sup></b>		
NO <sub>2</sub>  1-hour average annual average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.25 ppm (state) 0.053 ppm (federal)	
PM <sub>10</sub> 24-hour average annual geometric average annual arithmetic mean	10.4 $\mu\text{g}/\text{m}^3$ (recommended for construction) <sup>b</sup> & 2.5 $\mu\text{g}/\text{m}^3$ (operation) 1.0 $\mu\text{g}/\text{m}^3$ 20 $\mu\text{g}/\text{m}^3$	
Sulfate 24-hour average	1 $\mu\text{g}/\text{m}^3$	
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) 9.0 ppm (state/federal)	

<sup>a</sup> Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated.

<sup>b</sup> Ambient air quality threshold based on SCAQMD Rule 403.

KEY:            lbs/day = pounds per day      ppm = parts per million       $\mu\text{g}/\text{m}^3$  = microgram per cubic meter       $\geq$  greater than or equal to

### Air Quality Impacts

**III.a)** By aligning the multi-colored coating VOC content limit with USEPA CTG, PAR 1145 would partially implement 2007 AQMP control measure MCS-07 – Application of All Feasible Measures. However, the net effect of implementing PAR 1145 would be 1.7 pounds per day of VOC emission reductions foregone. This minor effect of PAR 1145 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 would bring the district into attainment with all national and state ambient air quality standards.

**III. b), c), and f)** For a discussion of these items, refer to the following analysis.

### **Construction**

PAR 1145 would not require construction so there would be no significant adverse construction impacts.

### **Operation**

In practice, PAR 1145 would not alter operations at existing facilities, since affected facilities already use PAR 1145 compliant coatings. However, the existing usages are not reflected in the existing Rule 1145. The following are adjustments to the existing Rule 1145 emissions inventory that would result from the implementation of PAR 1145.

#### Multi-colored Coating Category

PAR 1145 would reduce the VOC content limit for multi-colored coatings from 685 grams per liter to 680 grams per liter. Approximately 0.4 pound of VOC emissions per day would be reduced (see Table 2-2).

**Table 2-2**  
**Emissions and Emission Reduction from Amending Multi-Colored Coating**  
**VOC Content Limit**

Description	Usage, gal/day	Multi-Colored Category VOC Content, g/L	Emissions, lb/day
Rule 1145 limit	8.6	685	49.0
PAR 1145 limit	8.6	680	48.6
Total Emission Reduction			0.4

Emissions, lb/year = usage, gal/year x VOC content, g/l x lb/453.59 g x 3.785/gal

#### Refrigerated Glass Door Coating Category

The total amount of VOC emissions estimated to be generated by refrigerated glass door operations are presented in Table 1-1. The emissions reductions foregone would be the difference between these estimated emissions and the emission reductions originally expected for this coating category by the existing Rule 1145.

Under the existing version of Rule 1145, the coatings used for refrigerated glass doors fall under the general two-component coating category. The VOC content limit for the general two-component coating category is 120 grams per liter. The VOC emission reductions from the refrigerated glass door coatings had they been compliant with the existing Rule 1145 were estimated by multiplying the usage of refrigerated glass door coating by the existing Rule 1145 VOC content limit for the two-component coating category. This usage estimate resulted in 0.7 pound of VOC emissions per day (see Table 2-3).

**Table 2-3**  
**Original VOC Emissions from Refrigerated Glass Door Coatings Subject to the**  
**General Two-Component Coating Category VOC Content Limit**

Compound	Usage, gal/year	Two- Component VOC Content Limit, g/L	Rule 1145 Emissions, lb/yr	Rule 1145 Emissions, lb/day
Nazdar Process	176.1	120	176.1	0.7
Enthone Coating Process	5.9	120	5.9	0.02
Total			182.0	0.7

The VOC emission reductions foregone for the refrigerated glass door coating category with a VOC content limit of 480 grams per liter were estimated by taking the difference between the total VOC emissions presented in Tables 1-1 and the VOC emissions that would have been generated had the coatings met the general two-component coating category VOC content limit of 120 grams per liter as shown in Table 2-3. Therefore, the emissions reductions foregone from the refrigerated glass door category is determined by adding the emissions totals from Table 1-1, then subtracting the VOC emissions totals from Table 2-3. Table 2-4 presents this difference as 2.1 pounds per day.

**Table 2-4**  
**VOC Emissions Foregone from Refrigerated glass Door Coatings**

Coating System	Actual VOC Emissions, lb/yr	Two- Component VOC Content Limit Emissions, lb/yr	VOC Emissions Forgone, lb/year	VOC Emissions Forgone, lb/day
Nazdar Coating Process	700.7	176.1	524.6	2.0
Enthone Coating Process	21.8	5.9	15.9	0.1
Total	722.5	182.0	540.5	2.1

#### Total VOC Emissions

The multi-color coating category would reduce VOC emissions by 0.4 pounds per day. The refrigerated glass door coating is expected to result in the loss of VOC emission reductions by 2.1 pounds of VOC per day. Therefore, PAR 1145 would result in 1.7 pounds of VOC emission reductions foregone. Since 1.7 pounds of VOC per day is less than the VOC significant threshold of 55 pounds per day; PAR 1145 is not expected to create significant adverse operational air quality impacts.

#### **Global Warming**

Greenhouse gas (GHG) emissions have the potential to affect global climate. The action of GHGs is global in nature, rather than local or even regional. As a result, GHG emission impacts are considered to be cumulative impacts rather than project-specific impacts.

An examination of representative MSDSs for multi-colored and refrigerated glass door coatings did not identify any GHGs in the coating formulations. Since no construction is required, operations affected by PAR 1145 are not expected to change, and no GHGs were identified in the coatings, PAR 1145 is not expected to significantly adversely affect global warming.

#### **III.d) Multi-colored Coating Category**

Facility operators that use multi-colored coatings are currently required to use coatings with VOC content below 685 grams per liter pursuant to the USEPA CTG. In addition, toxic air compounds (TACs) in multi-colored coatings that meet a VOC content limit of 685 are expected to be similar to TACs in multi-colored coatings that meet a VOC content limit of 680 grams per liter. Therefore, no change in toxicity would be expected from reducing the multi-colored coating category VOC content limit from 685 grams per liter to 680 grams per liter.

#### **Refrigerated Glass Door Coating Category**

No direct comparison was made specifically of the replacement of refrigerated glass door coatings with compliant coatings (general two-component coatings) in the 2004 Final EA for PAR 1145 (SCAQMD No. 040902MK, November 11, 2004). Because of the broad range of compounds used in general two-component coatings, the 2004 Final EA for PAR 1145 qualitatively analyzed the replacement of common conventional solvents (toluene, xylene and Stoddard solvent) used in general two-component coatings with possible replacement solvents (acetone and parachlorobenzotrifluoride). The conclusion was that increased use of potentially toxic materials in reformulated coatings would generally be balanced by a concurrent decrease in the use of toxic materials in existing coatings at that time. Furthermore, the 2004 Final EA for PAR 1145 stated that considering the toxicity of the conventional solvents used at that time, there was no substantive evidence that showed that the use of the identified replacement solvents would result in significant adverse toxic contaminant impacts.

No compliant coatings were found for refrigerated glass door coatings when they were in the general two-component coating category; the addition of a new category for refrigerated glass door coatings would result in no change in composition in refrigerated glass door coatings because currently used coatings already comply with the VOC content limit of this new category. A review of MSDSs was completed. No carcinogenic TACs were identified. Noncarcinogenic TAC emission reductions foregone were estimated and compared to screening values for these TACs provided in the SCAQMD's Risk Assessment Procedures for Rules 1401 and 212, Version 7.0, Attachment L (revised July 11, 2008). All estimated emission reductions foregone were found to be below the screening levels (see Appendix B), therefore, no significant adverse impacts from toxics are expected.

#### **III.e) Multi-colored Coating Category**

Facility operators that use multi-colored coatings are currently required to use coatings with VOC content below 685 grams per liter pursuant to the USEPA CTG. In addition, odor causing compounds within multi-colored coatings that meet a VOC content limit of 685 are expected to be similar to odor causing components in multi-colored coatings that meet a VOC content limit of 680 grams per liter. Therefore, no change in odor characteristics would be expected from reducing the multi-colored coating category VOC content limit from 685 grams per liter to 680 grams per liter because compliant coatings are already used.



### Refrigerated Glass Door Coating Category

The 2004 Final EIR for PAR 1145 states that no change in odor characteristics would be expected by lowering the VOC content limit for the general two-component coating category. Since the refrigerated glass door category would allow the continued use of coatings that are already being used, no change in odor characteristics is expected by implementing PAR 1145.

### **Conclusion**

PAR 1145 is not expected to require any construction. PAR 1145 would reduce the VOC content limit for multi-color coatings from 685 grams per liter to 680 grams per liter. Since existing multi-color coatings that already comply with the 680 grams per liter limit are currently being used, and the composition of 685 grams per liter and 680 grams per liter multi-color coatings are expected to be similar, no significant adverse air quality impacts are expected.

PAR 1145 would also introduce a new category for refrigerated glass door coatings. While this coating was classified under the general two-component coating category, no replacement coatings were found that could meet the lower VOC content limits established under the November 2004 amendments to Rule 1145.

PAR 1145 would result in a marginal VOC emission reduction from lowering the VOC content limit for multi-color coatings. The affect of PAR 1145 on refrigerated glass door coatings is emission reductions foregone when compared to the existing VOC content limit for general two-component coatings. When emissions from the amendments are added together the total proposed project would result in 1.7 pounds of VOC emission foregone per day, which is not considered significant.

Since no construction is required, no significant adverse operational impacts are expected to occur, and no GHGs were identified in the coatings, PAR 1145 is not expected to create significantly adverse air quality or global warming impacts. No carcinogenic TACs were identified in a MSDS review. Non-carcinogenic TAC emissions in refrigerated glass door coatings were determined to be less than Rules 212 and 1401 screening thresholds, and therefore, not expected to be significant.

Thus, PAR 1145 is not expected to result in significant adverse air quality impacts, and mitigation measures are not required.

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	Potentially Significant Impact	Less Than Significant Impact	No Impact
<b>IV. BIOLOGICAL RESOURCES.</b> 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflicting with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## **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 1145 would not require any new development or require modifications to buildings or other structures to comply with the proposed VOC content limits for affected plastic, rubber, leather and glass coatings. No construction or change in operations is expected. As a result, PAR 1145 would not directly or indirectly affect any species identified as a candidate, sensitive or special status species, riparian habitat, federally protected wetlands, or migratory corridors. For these same reasons, PAR 1145 is not expected to adversely affect special status plants, animals, or natural communities.

**IV.e) & f)** PAR 1145 would not conflict with local policies or ordinances protecting biological resources or local, regional, or state conservation plans because it would not require construction or alter operations at affected facilities. Additionally, PAR 1145 will not conflict with any adopted local policies, ordinances protecting biological resources, Habitat Conservation Plan, Natural Community Conservation Plan, or any other relevant habitat conservation plan for the same reason identified in Item IV. a), b), c), and d) above.

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 adverse biological resources impacts are not anticipated and will not be further analyzed in this ~~Draft~~ Final EA. Since no significant adverse biological resources impacts were identified, no mitigation measures are necessary or required.

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	Potentially Significant Impact	Less Than Significant Impact	No Impact
<b>V. CULTURAL RESOURCES.</b> Would the project:			
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside a formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**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.

**V. a), b), c), & d)** PAR 1145 would not require any new development or require modifications to buildings or other structures to comply with the proposed VOC content limits for affected plastic, rubber, leather and glass coatings. No construction or alternation of existing operations is expected. All of the affected activities occur within existing structures. As a result, no impacts to historical resources are anticipated to occur as a result of implementing the proposed project. PAR 1145 is not expected to require physical changes to the environment, which may disturb historical, paleontological or archaeological resources. Since all construction or physical operations related to PAR 1145 would occur within the facility boundaries and within structures of existing affected facilities, it is not expected to disturb any human remains.

Based upon these considerations, significant adverse cultural resources impacts are not expected from the implementing PAR 1145 and will not be further assessed in this ~~Draft~~-Final EA. Since no significant adverse cultural resources impacts were identified, no mitigation measures are necessary or required.

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

**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), b), c), d) & e)** PAR 1145 would not require any new development or require modifications to buildings or other structures to comply with the proposed VOC content limits for affected plastic, rubber, leather and glass coatings. No construction or change in operations is expected. Since, no construction or change in operations is predicted and compliant coatings are currently being used; no new energy use at affected facilities is expected.

Based on the above information, PAR 1145 is not expected to conflict with adopted energy conservation plans or standards; substantially deplete existing energy resource supplies; increase demand for utilities, which would adversely impact the current capacities of the electric and natural gas utilities, affect peak or base period demands, or use non-renewable resources in a wasteful and/or inefficient manner. Operators affected by PAR 1145 are expected to continue to comply with all existing and applicable energy standards and/or conservation plans and/or programs.

PAR 1145 is not expected to generate significant adverse energy resources impacts and will not be discussed further in this ~~Draft~~ Final EA. Since no significant energy impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant Impact	No Impact
<b>VII. GEOLOGY AND SOILS.</b> Would the project:			
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## **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)** PAR 1145 would not require any new development or require modifications to buildings or other structures to comply with the proposed VOC content limits for affected plastic, rubber, leather and glass coatings. No construction or change in operations is expected. All of the affected activities occur within existing structures. As a result, substantial exposure of people or structure to the risk of loss, injury, or death involving seismic-related activities, such as strong seismic shaking, landslides, etc., beyond what currently may exist is not anticipated as a result of implementing PAR 1145 and will not be further analyzed in this ~~Draft~~ Final EA.

**VII.b), c), d) & e)** PAR 1145 is not expected to require new development or construction of new structures. Therefore, PAR 1145 would not significantly impact soils or result in locating new structures on geologic units or soils that are unstable or could potential results in landslides, subsidence, etc. As already noted, PAR 1145 would not require grading or other earth disturbing activities that could affect soil erosion or loss of topsoil.

Based on the above discussion, the proposed project is not expected to have an adverse impact on geology or soils. Since no significant adverse impacts are anticipated, this environmental topic will not be further analyzed in the ~~Draft~~ Final EA. No mitigation measures are necessary or required.

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	Potentially Significant Impact	Less Than Significant Impact	No Impact
<b>VIII. HAZARDS AND HAZARDOUS MATERIALS.</b> Would the project:			
a) Create a significant hazard to the public or the environment through the routine transport, use, disposal of hazardous materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



	Potentially Significant Impact	Less Than Significant Impact	No Impact
h) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Significantly increased fire hazard in areas with flammable materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### 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.

**VIII.a, b) & i)** Affected multi-colored coating facility operators already comply with the 680 grams of VOC per liter limit under federal regulations. Therefore, no change in formulation or operation is expected by lowering the multi-colored coating category VOC content limit from 685 grams of VOC per liter to 680 grams of VOC per liter.

A single facility currently uses refrigerated glass door coatings under a variance. Coatings used at this facility already comply with the proposed VOC content limit for refrigerated glass door coatings. Therefore, adding the new refrigerated glass door coating category would not alter coating operations at the single affected facility. The 2004 Final EA for PAR 1145 did not identify any substantial change in hazards or hazardous material adverse impacts from reformulating affected coatings to comply with a 120 gram per liter VOC content limit. Therefore, introducing the refrigerated glass door coating category to allow the single affected facility operator to use the existing refrigerated glass door coatings instead of reformulating to VOC content limits proposed in the 2004 amendments to Rule 1145 would not be expected to generate any substantial change in hazards or hazardous material adverse impacts.

Since no change in physical operations is expected, PAR 1145 is not expected to create significant hazard to the public or the environment through the routine transport, use, disposal of hazardous materials because there will be no increase in their use, create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment or significantly increase fire hazard in areas with flammable materials.

**VIII.c)** Although existing affected facilities are subject to any applicable SCAQMD air toxic control rules, they may currently emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. However, since PAR 1145 would not alter existing operations at affected facilities, no increase in emitted hazardous emissions, or handled hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school would occur. PAR 1145 is not expected to affect in any way new facility siting or increase the use of multi-colored or refrigerated glass door coatings, therefore, PAR 1145 is not expect to cause a significant adverse impact from increased hazardous emissions, or increases in handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

**VIII.d)** Government Code §65962.5 typically refers to a list of facilities that may be subject to Resource Conservation and Recovery Act (RCRA) permits. Since affected facility operators already use coatings that are compliant with the VOC content limits proposed by PAR 1145, no change in operations are expected. For any facilities affected by the proposed amended rule that are on the Government Code §65962.5 list, it is anticipated that operators would continue to manage any and all hazardous materials and hazardous waste, in accordance with federal, state and local regulations.

**VIII.e), & f)** Since PAR 1145 would not alter current existing operators at affected facilities, implementation of PAR 1145 is not expected to increase or create any new hazardous emissions in general, which could adversely affect public/private airports located in close proximity to the affected sites. Therefore, affected coatings use at existing facilities near public/private airports or airfields not expected to be significant.

**VIII.g)** PAR 1145 has no provisions that dictate the use of any specific plastic, rubber, leather or glass coatings. Facility operators who use plastic, rubber, leather or glass coatings have the flexibility of choosing coatings that are best suited for their operations. Since PAR 1145 is expected to allow the use of currently used plastic, rubber, leather or glass coatings, no change in operations or coatings are expected.

In addition, 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:

1. Identification of individuals who are responsible for various actions, including reporting, assisting emergency response personnel and establishing an emergency response team;
2. Procedures to notify the administering agency, the appropriate local emergency rescue personnel, and the California Office of Emergency Services;
3. Procedures to mitigate a release or threatened release to minimize any potential harm or damage to persons, property or the environment;
4. Procedures to notify the necessary persons who can respond to an emergency within the facility;

5. Details of evacuation plans and procedures;
6. Descriptions of the emergency equipment available in the facility;
7. Identification of local emergency medical assistance; and
8. Training (initial and refresher) programs for employees in:
  - a. The safe handling of hazardous materials used by the business;
  - b. Methods of working with the local public emergency response agencies;
  - c. The use of emergency response resources under control of the handler; and
  - d. 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.

Based on the discussion above, PAR 1145 is not expected to cause modifications to emergency response plans, and it is not anticipated that PAR 1145 would impair implementation of or physically interfere with an adopted or modified emergency response plan or emergency evacuation plan.

**VIII.h)** Since the use of PAR 1145 compliant plastic, rubber, leather or glass coatings would generally be expected to occur at existing industrial sites in urban areas where wildlands are typically not prevalent. In addition, since no change in coatings or operations are predicted, no risk of loss or injury associated with wildland fires is not expected as a result of implementing PAR 1145.

In conclusion, potentially significant adverse hazard or hazardous material impacts resulting from adopting and implementing PAR 1145 are not expected and will not be considered further. No mitigation measures are necessary or required.

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	Potentially Significant Impact	Less Than Significant Impact	No Impact
<b>IX. HYDROLOGY AND WATER QUALITY.</b>			
Would the project:			
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 flooding on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Place housing 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact	No Impact
i) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
k) Require or result in the construction of wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
l) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
m) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed, the construction of which could cause significant environmental effects.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
n) Require 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Significance Criteria**

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

**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.

**Water Demand:**

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

**Discussion**

**IX.a), c), d), e), j), k), l) & m)** Affected multi-colored coating facility operators already comply with the 680 grams of VOC per liter limit under federal regulations. Therefore, no change in formulation or operation is expected by lowering the multi-colored coating category VOC content limit from 685 grams of VOC per liter to 680 grams of VOC per liter.

A single facility currently uses coatings for refrigerated glass doors under a variance that would comply with the applicable VOC content limit in PAR 1145. Therefore, adding the refrigerated glass door coating category would not alter coating operations or emissions at the single affected facility. PAR 1145 would not require any additional water for operations nor generate any additional wastewater because affected operators would continue to use currently used coatings. As a result, new or expanded water entitlements or an alteration of drainage patterns is not expected from implementing PAR 1145. PAR 1145 would not require any new development or construction and, therefore, would not create or contribute to runoff water. Affected PAR 1145 operations typically occur within enclosed structures and are not water intensive operations. Therefore, PAR 1145 would not create or contribute new sources of runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional new sources of polluted runoff.

As detailed above, the proposed amended rule is not expected to require additional wastewater disposal capacity, violate any water quality standard or wastewater discharge requirements, or otherwise substantially degrade water quality. As result, no changes to storm water runoff, drainage patterns, groundwater characteristics, or flow are expected. Therefore, potential adverse impacts to drainage patterns, etc., are not expected as a result of implementing PAR 1145

**IX.b), & n)** Because PAR 1145 does not increase demand for water in any way, it is not expected to substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. PAR 1145 would not increase demand for water from existing entitlements and resources, and will not require new or expanded entitlements because compliant devices do not use water for any reason. Since PAR 1145 does not increase demand for water or increase or increase the amount of wastewater generated at affected facilities, operators of affected facilities do not need a determination by a wastewater treatment provider that sufficient capacity exists to serve the facility. Therefore, no water demand impacts are expected as the result of implementing the proposed amendments.

**IX.f), g), h) & i)** PAR 1145 would not require any new development or construction; therefore, PAR 1145 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 1145 is not expected to expose people or structures to new significant flooding risks. Establishing coating limits for coatings that already meet the proposed VOC content limits would not affect any existing risks from flood, inundation, etc. Consequently, PAR 1145 would not affect in any way any potential flood hazards inundation by seiche, tsunami, or mud flow that may already exist relative to existing facilities.

Based upon the above considerations, significant adverse hydrology and water quality impacts are not expected from the implementation of PAR 1145 and will not be further analyzed in this ~~Draft~~ Final EA. Since no significant hydrology and water quality impacts were identified, no mitigation measures are necessary or required.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>X. LAND USE AND PLANNING.</b> Would the project:			
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**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)** PAR 1145 would not require any new development or require modifications to buildings or other structures to comply with the proposed VOC content limits for plastic, rubber, leather and glass coatings. No construction or change to operations is expected at any affected facility. All of the affected activities occur within existing structures. Therefore, PAR 1145 does not include any components that would require physically dividing an established community.

**X.b) & c)** There are no provisions in PAR 1145 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 reducing the VOC content of affected plastic, rubber, leather and glass coatings. Therefore, PAR 1145 would not in any way affect habitat conservation or natural community conservation plans, agricultural resources or operations, and would not create divisions in any existing communities. Present or planned land uses in the region would not be significantly adversely affected as a result of implementing the proposed amended rule.

Based upon these considerations, significant adverse land use and planning impacts are not expected from the implementation of PAR 1145 and will not be further analyzed in this ~~Draft~~ Final EA. Since no significant land use and planning impacts were identified, no mitigation measures are necessary or required.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>XI. MINERAL RESOURCES.</b> 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**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 1145 that would result in the loss of availability of a known mineral resource of value to the region and the residents of the state, or of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan because compliance with PAR 1145 does not require mineral resources such as sand, gravel, etc.



Based upon the above considerations, significant adverse mineral resources impacts are not expected from the implementation of PAR 1145 and will not be further analyzed in this ~~Draft~~ Final EA. Since no significant mineral resources impacts were identified, no mitigation measures are necessary or required.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>XII. NOISE.</b> Would the project result in:			
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airship, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## **Significance Criteria**

Impacts on noise 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)** Compliant coatings affected by PAR 1145, i.e., plastic, rubber, leather and glass coatings are already used at existing affected facilities. PAR 1145 would not require any new development or require modifications to buildings or other structures to comply with the proposed amended rule. All of the affected coating activities occur within existing structures. No new construction from implementing the proposed project is expected. Existing affected coating activities do not typically generate significant noise. Since no change in operations is expected, no significant adverse noise impacts are expected and are not expected to be altered by PAR 1145. Thus, the proposed project is not expected to expose persons to the generation of excessive noise levels above current facility levels. It is expected that any facility affected by PAR 1145 would continue complying with all existing local noise control laws or ordinances.

In commercial environments Occupational Safety and Health Administration (OSHA) and California-OSHA have established noise standards to protect worker health. It is expected that operators at affected facilities will continue complying with applicable OSHA or Cal/OSHA noise standards, which would limit noise impacts to workers, patrons and neighbors.

**XII.b)** PAR 1145 is not anticipated to expose people to, or generate excessive groundborne vibration or groundborne noise levels since no construction is required and no change in operations is expected. Since existing coating operations are not known to generate excessive groundborne vibration or noise levels, and PAR 1145 is not expected to alter physical operations, no groundborne vibration or noise levels is expected from the proposed amended rule.

**XII.c)** A permanent increase in ambient noise levels at existing affected facilities above existing levels as a result of implementing the proposed project is unlikely to occur because the physical operations are not expected to change at affected facilities. Operators are expected to continue using existing coatings as they comply with the VOC content requirements in PAR 1145. Existing noise levels at affected facilities are unlikely to change and raise ambient noise levels in the vicinities of the existing facilities to above a level of significance because continued use of compliant applicable multi-colored and refrigerated glass door coatings is not expected to generate higher noise levels than are already occurring.

**XII.d)** No increase in periodic or temporary ambient noise levels in the vicinity of affected facilities above levels existing prior to PAR 1145 is anticipated because the proposed project

would not require construction or substantial changes to plastic, rubber, leather and glass coatings processes.

**XII.e) & f)** Even if an affected facility is located near a public/private airport, there are no new noise impacts expected from any of the existing affected facilities as a result of complying with the proposed project. Similarly, any existing noise levels at affected facilities are not expected to increase because operation at affected facilities are not expected to change. Thus, PAR 1145 is not expected to expose people residing or working in the vicinities of public airports to excessive noise levels.

Based upon these considerations, significant adverse noise impacts are not expected from the implementation of PAR 1145 and are not further evaluated in this ~~Draft~~-Final EA. Since no significant noise impacts were identified, no mitigation measures are necessary or required.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>XIII. POPULATION AND HOUSING.</b> 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**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 adverse effects, either direct or indirect, on the district's population or population distribution as no additional workers are anticipated to be required for affected facilities to comply with the proposed amendments. Human population within the jurisdiction of the SCAQMD is anticipated to grow regardless of implementing PAR 1145. As such, PAR 1145 would not result in changes in population densities or induce significant growth in population.

**XIII.b) & c)** Because the proposed project affects VOC content limits of affected multi-color and refrigerated glass door coating operations, PAR 1145 is not expected to result in the creation of any industry that would affect population growth, directly or indirectly, induce the construction of single- or multiple-family units, or require the displacement of people elsewhere.

Based upon these considerations, significant adverse population and housing impacts are not expected from the implementation of PAR 1145 and are not further evaluated in this ~~Draft~~-Final EA. Since no significant population and housing impacts were identified, no mitigation measures are necessary or required.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>XIV. PUBLIC SERVICES.</b> 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**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)** PAR 1145 would only affect VOC content limits of affected multi-color and refrigerated glass door coating operations at existing facilities. PAR 1145 would not require any new land-use development or require modifications to buildings or other structures to comply with the proposed amended rule. All of the affected activities occur within existing structures. Coatings compliant with the proposed project are currently available and used. As shown in the Section VIII - Hazards and Hazardous Material section of this ~~Draft-Final~~ EA, the use of PAR 1145 compliant plastic, rubber, leather and glass coatings are not expected to generate significant explosion or fire hazard impacts, because compliant products are current in use, so there is not expected to be any change in hazard impacts, if any, at affected facilities.

Therefore, PAR 1145 is not expected to affect in any way the chances for fires or explosions requiring a response from local fire departments. PAR 1145 is not expected to have any adverse effects on local police departments for the following reasons. Police would be required to respond to accidental releases of hazardous materials during transport. Since hazards impacts from implementing PAR 1145 were concluded to be less than significant, potential impacts to local police departments are also expected to be less than significant.

**XIV.c) & d)** As indicated in discussion under item XIII. Population and Housing, implementing PAR 1145 would not induce population growth or dispersion because no additional workers are expected to be needed at existing affected facilities. Therefore, with no increase in local population anticipated as a result of adopting and implementing PAR 1145, additional demand for new or expanded schools or parks is also not anticipated. As a result, no significant adverse impacts are expected to local schools or parks.

**XIV.e)** Besides building permits, there is typically no need for other government services at affected facilities. The proposal would not result in the need for new or physically altered government facilities and, as a result, is not expected to affect in any way acceptable service ratios, response times, or other performance objectives. There would be no increase in population and, as a result of implementing the proposed project, no need for physically altered government facilities.

Based upon these considerations, significant adverse public services impacts are not expected from the implementation of PAR 1145 and are not further evaluated in this ~~Draft-Final~~ EA. Since no significant public services impacts were identified, no mitigation measures are necessary or required.

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	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>XV. RECREATION.</b>			
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**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 under “Land Use and Planning” above, there are no provisions in the PAR 1145 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 proposed amended rule. 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 create 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 the implementation of PAR 1145 and are not further evaluated in this ~~Draft~~-Final EA. Since no significant recreation impacts were identified, no mitigation measures are necessary or required.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>XVI. SOLID/HAZARDOUS WASTE.</b> Would the project:			
a) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Comply with federal, state, and local statutes and regulations related to solid and hazardous waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**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)** Landfills are permitted by the local enforcement agencies with concurrence from the California Integrated Waste Management Board (CIWMB). Local agencies establish the maximum amount of solid waste which can be received by a landfill each day and the operational life of a landfill. PAR 1145 is not expected to increase the generation of any solid waste; therefore, would not affect the capacity of solid waste landfills to accommodate the proposed projects solid waste disposal needs.

**XVI.b)** It is assumed that existing facility operators currently dispose of hazardous waste from coating operations. It is further assumed that facility operators at facilities affected by PAR 1145 comply with all applicable local, state, or federal waste disposal regulations. Since no change in operations is expected at affected facilities, PAR 1145 is not expected to substantially change hazardous waste handling and disposal practices or compliance with applicable waste disposal regulations.

Based on these considerations, PAR 1145 is not expected to significantly increase the volume of solid or hazardous wastes disposed at existing municipal or hazardous waste disposal facilities or require additional waste disposal capacity. Further, implementing PAR 1145 is not expected to interfere with any affected facility's ability to comply with applicable local, state, or federal waste disposal regulations. Since no solid/hazardous waste impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant Impact	No Impact
<b>XVII. TRANSPORTATION/TRAFFIC.</b> Would the project:			
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access or?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**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.
- 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)** Since existing affected facility operators use coatings that already comply with the proposed VOC content limits, PAR 1145 is not expected to adversely affect traffic or transportation systems because continued use of existing coatings is not expected to affect in any way worker commute trips, delivery trips, etc. The proposed amended rule would not change or substantially increase operational transportation demands or services. Therefore, the implementation of PAR 1145 is not expected to significantly adversely affect circulation patterns on local roadways or the level of service at intersections near affected facilities.

**XVII.c)** Since PAR 1145 would not require construction or operations outside existing structures. Further, PAR 1145 would not affect in any way air traffic in the region as no affected coatings would need to be transported by plane.

**XVII.d)** Since PAR 1145 only affects VOC content limits of affected coatings, no offsite modifications to roadways are anticipated for the proposed project that would result in additional design hazards or incompatible uses.

**XVII.e)** Since PAR 1145 only affects VOC content limits of affected coatings at existing facilities, no changes are expected to emergency access at or in the vicinity of the affected facilities. The proposed project is not expected to adversely impact emergency access because plastic, rubber, leather and glass coatings compliant with the proposed project are already in use. Continued use of existing compliant products is not expected to require substantial modification to a facility's physical layout that would affect emergency access.

**XVII.f)** Since PAR 1145 only affects VOC content limits of affected coatings at existing facilities, no changes are expected to the parking capacity at or in the vicinity of the affected facilities. PAR 1145 is not expected to require additional workers, so additional parking capacity will not be required. Therefore, the project is not expected to adversely impact on- or off-site parking capacity.

**XVII.g)** Since PAR 1145 only affects VOC content limits of affected coatings at existing facilities, the implementation of PAR 1145 would not result in conflicts with alternative transportation, such as bus turnouts, bicycle racks, et cetera.

Based upon these considerations, PAR 1145 is not expected to generate significant adverse transportation/traffic impacts and, therefore, this topic will not be considered further. Since no significant transportation/traffic impacts were identified, no mitigation measures are necessary or required.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
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**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? | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 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)  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

**XVIII.a)** As discussed in the “Biological Resources” section, PAR 1145 is not expected to significantly adversely affect plant or animal species or the habitat on which they rely because PAR 1145 would only affect the VOC content limits of plastic, rubber, leather and glass coatings, which are typically used in existing structures at existing affected facilities. The affected facilities are located at sites that have already been greatly disturbed and that currently do not currently support such habitats. Additionally, no construction is expected from the implementation of PAR 1145. PAR 1145 is not expected induce construction of any new land use projects that could adversely affect biological resources.

**XVIII.b)** Based on the foregoing analyses, PAR 1145 would not generate any project-specific significant adverse environmental impacts that could cause or contribute to cumulative impacts in conjunction with other projects that may occur concurrently with or subsequent to the proposed project. Related projects to the currently proposed project include existing and proposed amended rules and regulations, as well as adoption and implementation of AQMP control measures, which produce emission reductions from most industrial and commercial sectors. Furthermore, because PAR 1145 does not generate significant adverse project-specific impacts, cumulative impacts are not considered to be “cumulatively considerable” as defined by CEQA guidelines §15065(a)(3). For example, the environmental topics checked ‘No Impact’

(e.g., aesthetics, agriculture resources, biological resources, cultural resources energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, solid/hazardous waste and transportation and traffic) would not be expected to make any contribution to potential cumulative impacts whatsoever. For the environmental topic checked 'Less than Significant Impact' (e.g., air quality), the analysis indicated that project impacts would not exceed any project-specific significance thresholds. These conclusions are based on the fact that the analyses for each of these environmental areas concluded that the incremental effects of the proposed project would be minor and, therefore, not considered to be cumulatively considerable. Also, in the case of air quality impacts, the net effect of implementing the proposed project with other proposed amended rules and regulations, and AQMP control measures is an overall reduction in district-wide emissions, thus, contributing to the attainment of state and national ambient air quality standards. Therefore, it is concluded that PAR 1145 has no potential for significant cumulative or cumulatively considerable impacts in any environmental areas.

**XVIII.c)** Based on the foregoing analyses, PAR 1145 is not expected to cause significant adverse effects to human beings. Significant adverse air quality impacts are not expected from the implementation of PAR 1145. Based on the preceding analyses, no significant adverse impacts to aesthetics, air quality, agriculture resources, biological resources, cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, solid/hazardous waste and transportation and traffic are expected as a result of the implementation of PAR 1145.

As discussed in items I through XVII above, the proposed project would not have potential to cause significant adverse environmental effects.

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**APPENDIX A**

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**PROPOSED AMENDED RULE 1145**

(Adopted July 8, 1983)(Amended December 5, 1986)(Amended February 6, 1987)  
(Amended April 3, 1987)(Amended August 7, 1987)(Amended December 2, 1988)  
(Amended February 3, 1989)(Amended April 7, 1989)(Amended March 2, 1990)  
(Amended November 2, 1990)(Amended December 7, 1990)(Amended August 2, 1991)  
(Amended January 10, 1992) (Amended March 8, 1996)(Amended February 14, 1997)  
(Amended December 3, 2004)(*Proposed Amended Rule: October 2009*)

**PROPOSED AMENDED RULE 1145. PLASTIC, RUBBER, LEATHER, AND GLASS COATINGS**

(a) Purpose and Applicability

The purpose of Rule 1145 is to reduce volatile organic compounds (VOC) emissions from the application of coatings to any plastic, rubber, leather, or glass products.

(b) Definitions

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

- (1) AEROSOL COATING PRODUCT is a pressurized coating product containing pigments or resins that dispenses product ingredients by means of a propellant, and is packaged in a disposable can for hand-held application, or for use in specialized equipment for ground traffic/marketing applications.
- (2) AIR BRUSH OPERATIONS are conducted with a type of coating application equipment that operates at air pressures between 25 psi and 116 psi and an air volume of 0.7 cfm and 1.75 cfm respectively. These operations apply a very thin film of coating to a substrate from a paint reservoir of eight ounces or less.
- (3) CLEAR COATING is a colorless coating which contains binders, but no pigment, and is formulated to form a transparent film.
- (4) COATING means a layer of material applied on a substrate that forms a decorative and/or protective film.
- (5) COATING APPLICATION EQUIPMENT is any equipment used to apply coating to a substrate. Coating application equipment includes coating distribution lines, coating hoses, pressure-pots, spray guns, and hand-application equipment.

- (6) DIP COATER is a type of application equipment that coats an object by submerging the object in a vat of coating, and subsequently withdrawing the object and draining off the excess coating.
- (7) ELECTRIC DISSIPATING COATING is a coating that rapidly dissipates a high-voltage electric charge.
- (8) ELECTROSTATIC APPLICATION is a method of applying coating whereby atomized paint droplets are charged and subsequently deposited on the substrate by electrostatic attraction.
- (9) EXTREME PERFORMANCE COATING is a coating applied to plastic, rubber, leather, or glass where the coated surface is, in its intended use, subject to the following: (A) Chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes, chemical mixtures or solutions; or, (B) Repeated exposure to temperatures in excess of 250°F; or, (C) Repeated heavy abrasion including mechanical wear and repeated scrubblings with industrial grade solvents, cleaners or scouring agents.
- (10) EMI/RFI SHIELDING is a coating used on electrical or electronic equipment to provide shielding against electromagnetic interference, radio frequency interference, or static discharge.
- (11) EXEMPT COMPOUNDS (See Rule 102-Definition of Terms).
- (12) FLOW COATER is a type of coating application equipment that coats an object by flowing a stream of coating over the object and draining off any excess coating.
- (13) GRAMS OF VOC PER LITER OF COATING, LESS WATER AND LESS EXEMPT COMPOUNDS, is the weight of VOC per combined volume of VOC and coating solids and can be calculated by the following equation:

Grams of VOC per Liter of Coating, Less Water and

$$\text{Less Exempt Compounds} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

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

- (14) 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
- (15) HAND-APPLICATION METHODS are the methods used to apply coating to substrate by manually held, non-mechanically operated equipment. Such equipment includes paint brushes, hand rollers, caulking guns, trowels, spatulas, syringe daubers, rags, and sponges.
- (16) HIGH-VOLUME, LOW-PRESSURE (HVLP) SPRAY is a coating application system which is operated at air pressures between 0.1 and 10 pounds per square inch gauge (psig) measured dynamically at the center of the air cap and at the air horns.
- (17) HIGHWAY CONES are cones used to regulate traffic.
- (18) INK is a fluid that contains dyes and/or colorants, and is used to make markings but not to protect surfaces.
- (19) LEATHER ANTIQUE COATING is a coating applied to a leather substrate over a leather sealer coating and before a leather top coating to create an antique leather appearance.

- (20) LEATHER COLOR COATING is a coating applied to a leather substrate over a leather sealer coating and before a leather top coating to provide color to the leather substrate.
- (21) LEATHER SEALER COATING is a coating applied directly to a leather substrate to seal the porous leather substrate.
- (22) LEATHER STAIN COATING is an opaque or semi-transparent coating which is formulated to change the color but not to conceal the grain pattern or texture of the leather substrate. Leather stain coatings may be applied as a single coating to the leather substrate or followed by a leather top coating.
- (23) LEATHER TOP COATING is a two-component clear coating that is applied to a leather substrate following the application of a leather sealer, leather stain or antique or color coatings.
- (24) MASK COATING is thin film coating applied through a template to coat a small portion of a substrate.
- (25) METALLIC COATING is a coating which contains more than 5 grams of metal particles per liter of coating as applied.
- (26) METAL PARTICLES are pieces of a pure elemental metal or a combination of elemental metals.
- (27) MILITARY SPECIFICATION COATING is a coating which has a formulation approved by the United States Military Agency for use on military equipment.
- (28) MIRROR BACKING is the coating applied over the silvered surface of a mirror.
- (29) MOLD SEAL COATING is the initial coating applied to a new mold or a repaired mold to provide a smooth surface which, when coated with a mold release coating, prevents products from sticking to the mold.
- (30) MOTOR VEHICLE is a passenger car, light-duty truck, medium-duty vehicle, or heavy-duty vehicle as defined in Section 1900, Title 13, California Administrative Code.
- (31) MULTI-COLOR COATING is a coating which exhibits more than one color when applied, and which is packaged in a single container and applied in a single coat.



- (32) 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.
- (33) OPTICAL COATING is a coating applied to an optical lens.
- (34) REFRIGERATED GLASS DOOR COATING is a two-component coating or ink used for the manufacturing of refrigerated glass doors that forms a decorative or protective film and provides a substrate for bonding materials such as seals, spacers, and sealants.
- (3435) REPAIR COATING is a coating used to re-coat portions of a previously coated product which has sustained mechanical damage to the coating following normal coating operations.
- (3536) ROLL COATER is a type of coating application equipment that utilizes a series of mechanical rollers to form a thin coating film on the surface of a roller, which is then applied to a substrate by moving the substrate underneath the roller.
- (3637) SHOCK-FREE COATING is a coating applied to electrical components to protect the user from electric shock. The coating has characteristics of being of low capacitance and high resistance, and having resistance to breaking down under high voltage.
- (3738) STENCIL COATING is an ink or a pigmented coating which is rolled or brushed onto a template or stamp in order to add identifying letters, symbols and/or numbers.
- (3839) TOUCH-UP COATING is a coating used to cover minor imperfections appearing after the main coating operation.
- (3940) 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.
- (4041) TRANSLUCENT COATING is a coating which contains binders and pigment, and is formulated to form a colored, but not opaque, film.
- (4142) TWO-COMPONENT COATING is a coating requiring the addition of a separate reactive resin, commonly known as a catalyst, before application to form an acceptable dry film.

(4243) VACUUM METALIZING/PHYSICAL VAPOR DEPOSITION (PVD) is the process whereby metal is vaporized and deposited on a substrate in a vacuum chamber.

(4344) VOLATILE ORGANIC COMPOUND (VOC) is as defined in Rule 102.

(c) Requirements

(1) ~~\_\_\_\_\_~~ ~~A No~~ person shall ~~not~~ apply on plastics, rubberplastics, leather, or glass, ~~leather, or rubber~~ any coatings which are applied with a VOC content in excess of the limits specified listed below in the Table of Standards.

**TABLE OF STANDARDS**

<b><u>VOC LIMITS</u></b>		
<b><u>LESS WATER AND LESS EXEMPT COMPOUNDS</u></b>		
<b><u>COATING CATEGORIES</u></b>	<b><u>g/L</u></b>	<b><u>lbs/gal</u></b>
<u>Electrical dissipating and shock free coatings</u>	<u>360</u>	<u>3.0</u>
<u>Extreme performance two-component coatings</u>	<u>420</u>	<u>3.5</u>
<u>General one-component coatings</u>	<u>120</u>	<u>1.0</u>
<u>General two-component coatings</u>	<u>120</u>	<u>1.0</u>
<u>Leather antique coatings</u>	<u>156</u>	<u>1.3</u>
<u>Leather color coatings</u>	<u>60</u>	<u>0.5</u>
<u>Leather sealer coatings</u>	<u>60</u>	<u>0.5</u>
<u>Leather stain coatings</u>	<u>216</u>	<u>1.8</u>
<u>Leather top coatings</u>	<u>120</u>	<u>1.0</u>
<u>Metallic coatings</u>	<u>420</u>	<u>3.5</u>
<u>Military specification one-component coatings</u>	<u>340</u>	<u>2.8</u>
<u>Military specification two-component coatings</u>	<u>420</u>	<u>3.5</u>
<u>Mirror backing curtain coated coatings</u>	<u>500</u>	<u>4.2</u>
<u>Mirror backing rolled coated coatings</u>	<u>312</u>	<u>2.6</u>
<u>Mold seal coatings</u>	<u>750</u>	<u>6.3</u>
<u>Multi-color coatings</u>	<u>680</u>	<u>5.7</u>

<u>Refrigerated glass door coatings</u>	<u>480</u>	<u>4.0</u>
<u>Optical coatings</u>	<u>50</u>	<u>0.4</u>
<u>Vacuum metalizing coatings</u>	<u>800</u>	<u>6.7</u>

<b>VOC Limits Less Water and Less Exempt Compounds</b>										
COATING CATEGORIES	Current		Jan 1, 2005		Jan 1, 2006		Jan 1, 2007		Jan 1, 2008	
	g/L	lbs/gal	g/L	lbs/gal	g/L	lbs/gal	g/L	lbs/gal	g/L	lbs/gal
Electrical dissipating and shock free coatings	360	3.0								
Extreme performance two-component coatings	Not Applicable		Not Applicable		420	3.5				
General one component coatings	275	2.3					120	1.0		
General two component coatings	420	3.5			300	2.5			120	1.0
Leather antique coatings	156	1.3	156	1.3						
Leather color coatings	60	0.5	60	0.5						
Leather sealer coatings	60	0.5	60	0.5						
Leather stain coatings	216	1.8	216	1.8						
Leather top coatings	120	1.0	120	1.0						
Metallic coatings	420	3.5								
<b>VOC Limits Less Water and Less Exempt Compounds</b>										
COATING CATEGORIES	Current		Jan 1, 2005		Jan 1, 2006		Jan 1, 2007		Jan 1, 2008	
	g/L	lbs/gal	g/L	lbs/gal	g/L	lbs/gal	g/L	lbs/gal	g/L	lbs/gal
Military specification one-component coatings	340	2.8								
Military specification two-component coatings	420	3.5								
Mirror backing curtain-coated coatings	500	4.2								
Mirror backing rolled-coated coatings	430	3.6					312	2.6		
Mold seal coatings	750	6.3								
Multi-colored coatings	685	5.7								
Refrigerated commercial-glass door coatings	480	4.0								
Optical coatings	800	6.7					50	0.4		
Vacuum metalizing-coatings	800	6.7								

(2) Solvent ~~Cleaning Operations; Storage and Disposal of VOC-containing Materials.~~ Solvent cleaning operations and the storage and disposal of VOC-containing materials are subject to the provisions of Rule 1171 - Solvent Cleaning Operations.

~~(3) — Notwithstanding the provisions of paragraph (c)(1), a person shall not apply on plastics, rubber, leather, or glass any automotive coating used to match the existing coating of motor vehicles, including any VOC containing materials added to the original coating as supplied by the manufacturer, in excess of the limits specified in Table 1 of subparagraph (c)(1)(A) of Rule 1151 for parts to be used on Group I Vehicles, as defined in Rule 1151, and in Table 2 of~~

~~subparagraph (c)(1)(B) of Rule 1151 for parts to be used on Group II Vehicles, as defined in Rule 1151.~~

~~The provisions of this paragraph shall apply provided that the applicator submits a petition, in writing, to the Executive Officer which demonstrates the need to apply such coatings and receives written approval from the Executive Officer prior to the application of such coatings.~~

**(43)** Transfer Efficiency

A person shall not apply coatings unless the coating is applied with equipment operated according to the manufacturer's specifications, and by the use of one of the following methods:

- (A) Electrostatic application; or
- (B) Flow coater; or
- (C) Roll coater; or
- (D) Dip coater; or
- (E) Hand application methods; or
- (F) High-volume, low-pressure (HVLP) spray; or
- (G) Such other coating application methods as are demonstrated to the Executive Officer to be capable of achieving at least equivalent or better transfer efficiency to the method listed in subparagraph (c)(43)(F), using District approved procedures and for which written approval of the Executive Officer has been obtained.

**(54)** Air Pollution Control Equipment

A person may comply with the provisions of paragraph (c)(1), (c)(2), or (c)(43) by using air pollution control equipment, provided that the VOC emissions from such operations or materials are reduced in accordance with provisions of (A) and (B) below:

- (A) The control device shall reduce VOC emissions from an emission collection system by at least 95 percent, by weight, or the concentration of VOC in the output of the air pollution control device shall be less than 50 PPM calculated as carbon with no dilution.

(B) The owner/operator demonstrates that the system collects at least 90 percent, by weight, of the VOC emissions generated by the sources of emissions.

**(65)** 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 prior to application of such coating and provided the applicator demonstrates that the intended use of each coated object would require coatings with an extreme performance coating.

(d) Recordkeeping Requirements

Records shall be maintained pursuant to Rule 109.

(e) Compliance Test Methods

The following test methods and procedures shall be used to determine compliance with this rule. Alternative test methods may be used if they are determined to be equivalent and approved in writing by the Executive Officer, the California Air Resources Board (CARB) and the United States Environmental Protection Agency (USEPA).

(1) The VOC content of materials subject to the provisions of this rule shall be determined by:

(A) The USEPA Reference Method 24 (Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings, Code of Federal Regulations Title 40, Part 60, Appendix A). The exempt compounds' content shall be determined by SCAQMD Laboratory Methods 302 (Distillation of Solvents from Paints, Coatings and Inks) and 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 (VOC's) 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—subdivision (c), only at such time as manufacturers specify which individual compounds are used in the coating formulations and identify the USEPA, CARB, and the SCAQMD approved test methods, used to quantify the amount of each exempt compound.

- (2) Determination of Efficiency of Emission Control System
- (A) The capture efficiency of an emission control system shall be determined by verifying the use of a Permanent Total Enclosure (PTE) and 100 percent capture efficiency as defined by USEPA Method 204 “Criteria for and Verification of a Permanent or Temporary Total Enclosure.” Alternatively, if a USEPA Method 204 defined PTE is not employed, capture efficiency shall be determined using a minimum of three sampling runs subject to data quality criteria presented in the USEPA technical guidance document “Guidelines for Determination Capture Efficiency, January 9, 1995.” Individual capture efficiency test runs subject to the USEPA technical guidelines shall be determined by:
- (i) the Temporary Total Enclosure (TTE) approach of USEPA Methods 204 through 204F; or
  - (ii) the SCAQMD “Protocol for Determination of Volatile Organic Compounds (VOC) Capture Efficiency.”
- (B) The efficiency of the control device of the emission control system as specified in paragraph (c)(~~54~~) and the VOC content in the control device exhaust gases, measured and calculated as carbon, shall be determined by the USEPA Test Method 25, 25A, or SCAQMD Method 25.1 (Determination of Total Gaseous Non-Methane Organic Emissions as Carbon) as applicable. USEPA Test Method 18, or CARB Method 422 shall be used to determine emissions of exempt compounds.
- (C) The overall efficiency of an emission control system shall be determined using the following equation:
- $$\text{Overall Efficiency} = (\text{Capture Efficiency}) \times (\text{Control Equipment Efficiency})/100$$

(3) 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.

(4) Demonstration of transfer efficiency shall be conducted in accordance with SCAQMD method "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989."

(5) All test methods referenced in this section shall be the most recently approved version.

(f) Alternative Emission Control

A person may achieve compliance with paragraph (c)(1) ~~or (e)(3)~~ by means of an Alternative Emission Control Plan pursuant to Rule 108.

(g) Prohibition of Specification and Sales

(1) A person shall not specify the use, in the SCAQMD, of any coating to be applied to any plastic, rubber, leather, or glass, 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.

(2) Except as provided in subdivision (i), a person shall not apply, sell, or offer for sale, manufacture, formulate, or repackage any plastic, rubber, leather or glass coating materials for the use in the SCAQMD that at the time of sale exceeds the applicable VOC content specified in paragraphs (c)(1) ~~and (e)(3)~~.

The prohibition of specifications and sales shall not apply to plastic, rubber, leather, or glass coating materials shipped, supplied or sold to a person for use outside the SCAQMD or to coatings used exclusively in air pollution control equipment that complies with the requirements of paragraph (c)(~~5~~4).

(h) Rule 442 Applicability

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

(i) Exemptions

(1) The provisions of paragraph (c)(1) shall not apply to the following:



- (A) Touch-up and repair coatings;
  - (B) Stencil coatings applied on clear or transparent substrates;
  - (C) Clear or translucent coatings; ~~except for those subject to paragraph (c)(3);~~
  - (D) Coatings applied at a paint manufacturing facility while conducting performance tests on the coatings;
  - (E) Any individual coating category used in volumes less than 50 gallons in any one year, if substitute compliant coatings are not available, provided that the total usage of all such coatings does not exceed 200 gallons per year, per facility, and for which written approval of the Executive Officer has been obtained;
  - (F) Reflective coating applied to highway cones;
  - (G) Mask coatings
    - (i) Coatings that are less than 0.5 millimeter thick (dried) and the area coated is less than 25 square inches; or
    - (ii) Coatings that are less than 0.5 millimeter thick (dried) and/or the area coated is more than 25 square inches, provided that a written petition that demonstrates compliant coatings are not available is submitted to and written approval is granted by the Executive Officer.
  - (H) EMI/RFI shielding coatings; and
  - (I) Heparin-benzalkonium chloride (HBAC)-containing coatings applied to medical devices, provided that the total usage of all such coatings does not exceed 100 gallons per year, per facility.
- (2) The provisions of this rule shall not apply to aerosol coating products.
  - (3) The provisions of paragraph (c)(~~4~~3) shall not apply to airbrush operations using 5 gallons or less per year.
  - (4) The VOC limit for the general one-component coating category in paragraph (c)(1) shall not apply to polyurethane shoe sole coating operations provided that:
    - (A) the VOC limit of all coatings used for polyurethane shoe sole coating operations does not exceed 800 grams per liter or 6.7 pounds per gallon;

- (B) the operation does not use more than 160 gallons per month averaged over a consecutive 12 month period;
- (C) the operation does not use more than 200 gallons per month during any one month; and,
- (D) records are maintained for at least three years demonstrating compliance with subparagraphs (i)(4)(A), (i)(4)(B) and (i)(4)(C) and made available to the Executive Officer upon request.

## **APPENDIX B**

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### **EMISSION CALCULATIONS**

**Table B-1**  
**Refrigerated Glass Door Coating Usages and VOC Emissions Inventory**

Coating System Component	2007 Usage, gal/year	Density, lb/gal	Emissions, lb/yr	Emissions, lb/day
<b>Nazdar</b>				
Ink	123.7	1.1	383.5	1.5
Catalyst	27.0	0.3	112.1	0.4
Thinner	25.4	0.6	205.2	0.8
<b>SubTotal</b>	<b>176.2</b>		<b>700.8</b>	<b>2.7</b>
<b>Enthone</b>				
Ink	5.0	3.64	18.2	0.07
Catalyst	0.5	0.83	0.4	0.002
Thinner	0.4	8.08	3.2	0.01
<b>SubTotal</b>	<b>5.9</b>		<b>21.8</b>	<b>0.08</b>
<b>Total</b>	<b>182</b>		<b>722.6</b>	<b>2.8</b>

Emissions, lb/year = usage, gal/year x density, lb/gal

Emissions, lb/day = (emissions, lb/year)/(260 day/year)

**Table B-2**  
**Multi-component Coating Usages and VOC Emission Reductions**

VOC Content Limit	Usage, gal/day	VOC Content, g/L	Emissions, lb/day
Current	8.6	685	49.0
Proposed	8.6	680	48.6
<b>Total Emissions Reduction</b>			<b>0.4</b>

Emissions, lb/day = usage, gal/day x VOC content, g/l x lb/453.59 g x 3.785/gal

**Table B-3**  
**Original VOC Emission Reductions from Refrigerated Glass Door Coating Subject to the General Two-Component Coating Category VOC Content Limit**

Coating System	Usage, gal/year	Two-Component VOC Content Limit, g/L	Two-Component VOC Content Limit, lb/gal	Rule 1145 Emissions, lb/yr	Rule 1145 Emissions, lb/day
Nazdar Coating Process	176.1	120	1.0	176.1	0.7
Enthone Coating Process	5.9	120	1.0	5.9	0.02
<b>Total</b>				<b>182.0</b>	<b>0.7</b>

Two-Component VOC content limit, lb/gal = two-component VOC content limit, g/L x 1 lb/453.59 g x 3.785 L/gal

Emissions, lb/yr = usage, gal/yr x two-component VOC content limit, lb/gal

Emissions, lb/day = (emissions, lb/yr)/(260 day/yr)

**Table B-4**  
**VOC Emissions Foregone from Refrigerated Glass Door Coatings**

Coating System	Actual VOC Emissions, lb/yr	Two-Component VOC Content Limit Emissions, lb/yr	VOC Emissions Forgone, lb/yr	VOC Emissions Forgone, lb/day
Nazdar Coating Process	700.8	176.1	524.7	2.0
Enthone Coating Process	21.8	5.9	15.9	0.1
Total	722.6	182.0	540.6	2.1

VOC emissions forgone, lb/yr = Actual VOC Emissions, lb/yr - two component VOC content limit emissions, lb/yr  
Emissions, lb/yr = (emissions, lb/yr)/(260 day/yr)

**Table B-5**  
**Chronic and Acute Health Risk Screening**

Compound	CAS No.	Emissions, lb/yr	Emissions, lb/hr	Screening Level @ 25-m lb/yr	Screening Level @ 25-m lb/hr	Chronic Significance?	Acute Significance?
Ethylene glycol monobutyl ether	111-76-2	0.2	0.0004	-	7.00E+00	No	No
Propylene glycol monomethyl ether	107-98-2	134.3	0.0460	2.31E+05	-	No	No
Xylenes (isomers and mixtures)	1330-20-7	161.7	0.0554	2.31E+04	1.10E+01	No	No
Toluene (methyl benzene)	108-88-3	31.9	0.0109	9.92E+03	1.85E+01	No	No
Ethyl benzene	100-41-4	18.8	0.0064	6.61E+04	-	No	No

- Emissions were estimated from annual coating usage and physical characteristics (density, wt fractions) from the MSDS.
- Screening Levels from SCAQMD Risk Assessment Procedures for Rules 1401 and 212, Version 7.0, Attachment L (revised July 11, 2008)
- No carcinogenic toxic air contaminants were identified from MSDSs.

Compound	CAS No.	Usage, ton/yr	Usage, lb/hr	X/Q [ug/m3]/ [ton/yr]	X/Qhr [ug/m3]/ [lb/hr]	MET	MP	Chronic REL, ug/m3	Acute REL, ug/m3	Chronic HI	Acute HI
Ethyl benzene	100-41-4	0.0063	0.004	60.5	1,532	1.76	1	2,000	N/A	0.0003	N/A
Propylene glycol monomethyl ether	107-98-2	0.0776	0.053	60.5	1,532	1.76	1	7,000	N/A	0.0012	N/A
Toluene	108-88-3	0.0014	0.001	60.5	1,532	1.76	1	300	37,000	0.0005	0.00004
Ethylene glycol monobutyl ether	111-76-2	0.0001	0.000	60.5	1,532	1.76	1	N/A	14,000	N/A	N/A
Xylenes	1330-20-7	0.0464	0.032	60.5	1,532	1.76	1	700	22,000	0.0071	0.00221
<b>Total</b>										<b>0.0091</b>	<b>0.0023</b>

- Emissions were estimated from annual coating usage and physical characteristics (density, wt fractions) from the MSDS.
- Tier 2 analysis from SCAQMD Risk Assessment Procedures for Rules 1401 and 212, Version 7.0, Attachment L (revised July 11, 2008)
  - Assumed worse-case dispersion factors (Table 5A) and MET correction factors (Table 5B)
  - Total Chronic HI =  $\Sigma \{ [Q_{yr}TAC \times (X/Q) \times MET \times MPI] / \text{Chronic REL}_{TAC} \}$
  - Total Acute HI =  $\Sigma \{ [Q_{hr}TAC \times (X/Q)_{hr}] / \text{Acute REL}_{TAC} \}$
  - Chronic and Acute HIs less than one are considered less than significant.
- No carcinogenic toxic air contaminants were identified from MSDSs.
- Calculations were revised to include all coating colors. The analysis in the Draft EA only included gray and black coatings.

## **APPENDIX C**

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### **COMMENTS AND RESPONSE TO COMMENTS**



July 7, 2009

Mr. Don Hopps  
Air Quality Specialist  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765

RE: OPPOSE Amendments to Rule 1145—Plastic, Rubber, Leather and Glass Coatings

Dear Don:

RadTech is a non-profit industry association representing over 800 members involved in Ultraviolet/Electron Beam technology. As you know, and as has been recognized in various district publications, the materials used in the process have negligible VOC's. Some of our member companies provide equipment and materials to the glass coatings industry.

RadTech does not support the district's proposal to create a new category that would exempt refrigerated glass doors. The amendments are based on the inaccurate conclusion stated in the staff report that UV/EB coatings failed to adequately adhere to glass. Radtech is pleased to provide you with current literature that speaks to the contrary.

The adhesion problems cited in the staff report may be overcome with certain pre-treatment steps. The attached article by Petra Burger of Fusion UV (Glass worldwide, issue fourteen 2007, Page 50) shows how a UV coating fails adhesion tests without pre-treatment and how the same coating gets 100 percent adhesion with the proper pre-treatment. The same article illustrates that UV coatings are being used in glass bottles. Coatings on beverage containers have to withstand refrigeration by consumers. The article by Dawn Skinner (page S20 Annual ESMA Glass Publication 2009) talks about the importance of pre-treatment to achieve good adhesion results.

UV coatings can withstand the chemical resistance requirements and abrasion resistance requirements of various industries such as the cosmetics industry where coatings must achieve "very high chemical resistance to alcohol, acetone and other cosmetic ingredients." (see article by George Koch of Ruco Druckfarben, page 72 Glass worldwide, issue thirteen 2007.)

UV products can achieve "excellent adhesion" on glass even for large glass panels in outdoor applications that must "withstand outdoor or wet conditions for long periods of time." (see article by Michael Lackner, page 80, Glass worldwide, issue thirteen, 2007.)

The attached press release by Marabu (a supplier of UV glass coatings) specifically states (see page 2 of 4):



“Very good adhesion, excellent scratch, alkaline, chemical and dishwasher resistance”

“Universal suitability also for highly stressed restaurant and container glass”

1-1  
Cont Some UV products for glass applications can be “dishwasher proof, resistant to alcohol and to the G1 mixture” (see page 54 of article by Michel Mekdissi, Glass worldwide, issue eleven 2007). Adhesion issues can also be addressed by adding adhesion promoters to the formulation (see page S8 of article by Edwin Tafelmeier, Annual ESMA Glass Publication 2008)

The Marabu press release points out that the UV formulation is “Heavy metal-free”. Traditional glass coatings may contain heavy metals such as lead, cadmium or mercury. However,

1-2 “organically-based ink systems are now available to replace ceramic inks. These inks are cured by environmentally friendly UV technology, do not contain any heavy metals or VOC’s, offer a huge variety of colours and ensure a positive economical process.”  
(see page 48 of article by Petra Burger “UV curing for screen printing on glass”)  
The staff report does not address the issue of whether or not the district has looked into the issue of heavy metals in the conventional formulation being proposed for exemption.

Please note that the UV coating can be used for the following applications:

- 1-3
- Restaurant and container glass
  - Drinking glasses and bottles
  - Cosmetics flacons
  - Tabletops
  - Cabinets
  - Doors
  - Showers
  - Mirrors
  - Gambling machines

UV formulations can be found for “glossy or matte appearance, metallic, interferential, iridescent etc.” (see page 54 of article by Michel Mekdissi, Glass worldwide, issue eleven 2007)

The current literature does not support the district’s conclusion that UV/EB materials do not achieve adequate adhesion. Therefore, RadTech respectfully requests a modification to the district’s proposal to reflect the best scientific information. Please feel free to contact me at 909-981-5974 or via e-mail [rita@radtech.org](mailto:rita@radtech.org) to discuss the issue further.

Sincerely,

Rita M. Loof  
Director, Environmental Affairs  
cc: Barry Wallerstein, SCAQMD Boardmembers

**RadTech International North America is a nonprofit trade association dedicated to the technical, educational and market advancement of ultraviolet and electron beam technology. RadTech has over 800 members that supply and use UV/EB equipment, raw materials and formulated products.**

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**Comment Letter #1  
Radtech International North America  
July 29, 2009**

**Response 1-1**

The commentator's comment refers to the proposed new coating category to Rule 1145 for refrigerated glass doors. The comment refers to a number of applications where UV coatings appear to have been used successfully. The comment was provided after tests performed by the affected refrigerated glass door operator and refers to these tests. Subsequent to this letter, the commentator requested additional testing at the Stationary Source Committee Meeting held on July 24, 2009. A technical assessment was prepared to address the request for additional source testing. The UV coatings provided did not meet the performance requirements established by the refrigerated glass door operator. The following details the testing and results of the tests performed:

**Background**

SCAQMD staff reviewed Standard Industrial Classification Codes (SIC) and identified one facility that has a niche refrigerated glass door operation that cannot meet the current VOC content limits in Rule 1145 for a two-component coating (the current two-component coating VOC content limit is 1.0 pound per gallon). These refrigerated glass doors are commonly seen at grocery stores in the frozen food aisles as well as the cold beverages aisles.

The refrigerated glass door coating serves as 1) an opaque border to hide the undesirable rough edges, hinges and related hardware of the glass panel 2) provides a substrate for the spacer and 3) as sealant that is used to bond three glass panes together (in a sandwich-like configuration). The three glass panes are used to make one glass door assembly for refrigerated cabinets. Failure of the seal between the glass panels is exacerbated by the constant opening and closing of the door while in service, which dynamically stresses the seal and the border coating. In addition to preventing door assembly failures, it is necessary that the border coating adhere to the glass substrate or the seal between the glass panels will fail to prevent moisture from entering in between the individual glass panels, also raising warranty issues

The refrigerated glass door coating currently used by the facility operator is hand rolled along the edges of large glass panes, approximately one inch wide. Prior to the current hand rolling operation, the facility operator used a screen printing process that met the much higher 600 g/L VOC content limit specified in Rule 1130.1 – Screen Printing Operations. The facility operator, in an effort to streamline the process, produce less waste and reduce emissions, applied for and received a variance to roll coat his/her current epoxy ink coating in lieu of the screen printing operation. Using the hand rolling to apply the coating shifted compliance from Rule 1130.1 to Rule 1145, which had lower VOC content requirements for the regulated coatings. By switching over to the much simpler roll coating operation, the facility operator was able to yield a marginal air quality benefit by eliminating the excess emissions associated with the extra coating required for the screen printing operation and the clean-up of the screens.

Because of the more stringent VOC content requirements in Rule 1145, the affected facility operator filed and was granted a two-year variance by the SCAQMD Hearing Board to December 31, 2009, which allows continued operations using the existing non-compliant coating products that are known to work without adhesion failures. The variance was granted on December 19, 2007, as a Hearing Board Action Item. The variance includes a condition that requires the facility operator to meet increments of progress, which include the testing of

potentially viable low-VOC compliant alternative coatings. SCAQMD staff has been working with the facility since February 2008 and has noted that none of the potentially compliant low-VOC alternative coatings the facility operator has tried has met all of the facility operator's performance requirements for this niche operation. The performance requirements include adhesion, opacity, color variety, ease of application, etc.

### **Initial Replacement Coating Tests Prepared by the Affected Facility**

Several alternative coatings were tested as potential low-VOC replacements to the two current screen printing ink systems, but none provided adequate adhesion to the glass substrate, causing adhesion failure between the glass panels and spacers. As a consequence, the glass door assemblies were determined to be defective door assemblies that failed while in service and required replacement under warranty. The facility operator also tested low-VOC powder coating applications and silk-screening operations in the past, but both technologies resulted in multiple specification failures leading to multiple warranty issues. The facility operator informed SCAQMD staff that during the trials using powder coatings, door assembly failures resulted in \$3,500,000 in warranty costs; costs that the facility operator had to absorb.

As part of the initial testing, the refrigerated glass door facility operator recently worked with an ultra-violet ("UV") coating manufacturer to determine if a low-VOC UV cured coating could work for this particular niche operation. The UV coating manufacturer coated glass sample panels using the UV technology and upon testing for adhesion the initial performance of the UV coating appeared to be satisfactory. The facility operator had a second round of testing from the UV coating manufacturer performed and, upon inspection of the second set of UV coated glass sample panels, it was observed that two out of three sample panels did not meet the facility's adhesion requirements (i.e., did not meet the facility's performance specification of 100 percent adhesion). As a result, the UV coatings were deemed unacceptable, particularly in light of the fact that the UV coating manufacturer could not warranty the UV coatings.

The facility operator uses ASTM D3359-97 as the test method used to measure adhesion. The test is a simple tape pull-off test that is performed by first inscribing 11 parallel lines in the coating all the way down to the substrate and then crosshatching 11 more lines, perpendicular to the first 11 lines, again all the way down to the substrate. A piece of masking tape is then applied directly over the cross-hatched pattern and a pencil eraser is used to rub the tape onto the surface. The tape is then pulled up at a constant rate in a uniform consistent pull. A 100 percent adhesion would demonstrate that the edges of the cuts would be completely smooth and none of the squares of the lattice would be detached. If there are small flakes of the coating detached along the cuts, or at the intersections of cuts, or the coating has flaked along the edges and on parts of the squares, then the adhesion test substrates are compared to Figure 1 in ASTM D 3359-97 to determine the percentage of the coating removed. The affected facility operator considers any detachment, including flaking on the cuts or ragged cut edges, to be unacceptable.

SCAQMD staff contacted the UV coating manufacturer regarding the results of the second round of samples from the initial testing and was informed that the adhesion strength could have been enhanced with a pretreatment such as a flame/plasma application treatment. This process is also known as pure or silicate flaming. This pretreatment operation is conducted in an oven where the flame application is applied onto the glass surface to raise the tensile strength of the glass surface to enhance the coatings adhesion to the glass. This type of equipment could be employed, but at substantial expense to the facility, as well as, producing increased NO<sub>x</sub> (oxides of nitrogen), CO (carbon monoxide), particulate and greenhouse gases emissions. In addition, the thermal effects on the glass substrate would have to be considered in the manufacturing

process of the refrigerated glass door assembly as they may potentially cause undesirable tempering that could alter the physical properties of the glass door panels. The UV coating manufacturer informed staff that given more research and development time, he may be able to develop a UV coating that would work for the facility's niche coating operation and satisfy all their adhesion requirements. However, since the facility's variance expires December 31, 2009, this additional time is not an acceptable option.

### **Stationary Source Committee Meeting Held July 24, 2009**

Following the SCAQMD staff presentation of Proposed Amended Rule 1145, three members of the UV coating industry (including the commentator) stated that UV coatings would work for the facility's niche refrigerated glass door coating operation despite the recent unacceptable (determined by the facility) results. The Stationary Source Committee recommended that one last adhesion test be conducted by the same UV coater that coated the previous samples and that data would then be used to determine if a UV coating would meet the coating performance requirements for the facility's niche coating operation. The facility operator agreed to provide six sample glass panels to the UV coater who would then apply the UV coating to the glass sample panels and ship them to SCAQMD.

### **ASTM D 3359-97 Technical Assessment**

In response to the recommendation for coating testing by the Stationary Source committee, SCAQMD staff prepared a technical assessment to evaluate coatings provided by the UV coater. SCAQMD staff contracted with a third party to conduct the adhesion by tape pull-off tests for the technical assessment using ASTM test method D 3359-97, the adhesion by tape pull-off test. The third party contractor ultimately conducted three different test series as part of the technical assessment to determine the adhesion by tape pull-off for the coated sample glass panels in accordance with ASTM D 3359-97.

The first test series was conducted on the recommendation of the Stationary Source Committee. On August 5, 2009, the facility operator e-mailed a list of criteria for their coating performance requirements and a list of questions to both the UV coater and SCAQMD staff. The facility operator also shipped six glass sample panels to the UV coater on the same day. On August 21, 2009, SCAQMD staff received the UV coated sample glass panel package from the UV coater. To avoid handling the glass panels, SCAQMD staff did not open the cardboard shipping container, but instead relinquished the cardboard shipping container on August 26, 2009, to the third party tester who was contracted by SCAQMD to conduct the adhesion by tape pull-off tests. On August 27, 2009, the third party tester informed SCAQMD staff that there was only one UV coated glass sample panel in the cardboard shipping container and the adhesion by tape pull-off test results had been completed. The test results showed that each of the four test areas on the UV coated panel rated 5B based on Figure 1 in ASTM D 3359-97, meaning that no material was removed from the test area (except for the sharp scribe lines).

The second test series was performed because the facility operator voiced concerns to the UV coater and SCAQMD staff over the fact that only one UV coated glass sample panel was submitted out of the six glass sample panels that they provide to the UV coater. The UV coater requested the facility to ship another twelve sample glass panels for additional testing. On August 20, 2009, the facility operator shipped twelve additional glass sample panels and on August 21, 2009, the UV coater received them. The UV coater applied the UV coating to the glass sample panels and shipped them to SCAQMD on September 1, 2009. On September 3, 2009, SCAQMD staff received the UV coated glass samples and again did not open the wooden shipping box to avoid handling the sample glass panels. SCAQMD staff relinquished the

wooden shipping box to the third party tester on the same day. On September 8, 2009, the third party tester informed SCAQMD staff that there were six UV coated glass samples in the wooden shipping box and the adhesion by tape pull-off tests had been completed. The six UV coated glass samples were tested using the same ASTM test that was used for the first test series. Each UV coated sample glass panel was divided into quadrants and the adhesion by tape pull-off test was conducted inside each quadrant. There were a total of 24 adhesion by tape pull-off tests performed on the six UV coated glass samples. The third party tester's report stated that the UV coated glass sample panels were difficult to grade and that the ragged edges (cuts made into the coating) were in the five to 15 percent category, which corresponds to a 3B rating according to Figure 1 of ASTM D 3359-97. SCAQMD staff observed the UV coated glass samples and observed jagged lines where the scribe tool crosshatched the coating as compared to sharp crisp crosshatched lines that were observed in the first test series.

The final test series was conducted after SCAQMD staff met with the affect facility's staff on September 11, 2009. Both parties agreed that the facility operator's current epoxy ink system should be tested by the third party tester using the same ASTM test that was used on the UV coatings. On September 15, 2009, the facility operator shipped five glass sample panels to SCAQMD that were coated with their existing epoxy ink. SCAQMD staff received the epoxy ink coated glass sample panels on September 16, 2009, but did not open the wooden box. On the same day, SCAQMD staff relinquished the wooden box to the third party tester. On September 17, 2009, the third party tester informed SCAQMD staff that the wooden shipping container contained five epoxy ink coated glass panel samples inside and the adhesion by tape pull-off tests had been completed. The epoxy ink coated glass panels were divided into quadrants and the adhesion by tape pull-off test was performed inside each quadrant. There were a total of 20 adhesion by tape pull-off tests conducted on the five samples and each one was rated 5B, which means that no material was removed from the test area (except for the sharp scribe lines) as shown in Figure 1 of ASTM D 3359-97.

On September 18, 2009, the facility was visited by two representatives from an established and well known architectural and industrial maintenance finish manufacturer. The two representatives were shown the facility's coating operation and according to the facility operator they commented that, in the immediate term, a UV coating would not be the best recommendation. The representatives said that a UV coating operation would require a defined UV end application process such as roll coating or screening printing. These types of coating operations would require additional research and development time to determine how they would affect the UV coating curing process and UV coatings adhesion properties. In addition, there would have to be research and development time necessary for color matching. On October 6, 2009, SCAQMD staff contacted the representative from the architectural and industrial maintenance finish manufacturer identified by the facility operator and inquired if they had a UV coating or a low-VOC alternate conventional coating that would work for the facility's operation. The architectural and industrial maintenance finish manufacturer representative informed SCAQMD staff that based on their operations and their comments "we don't have anything to offer them. Our coating was not manufactured for something like that. This will require substantial testing." SCAQMD staff inquired about a two-part polyurethane coating and was informed "we do have a two-part polyurethane 6S series and it has 0.7 pound per gallon of VOC. We can work with them [the affected facility operator], but their coating operation involves more than just a coating. They were very upfront with everything and we can't offer a coating for that [the affected facility operator's coating operation]."

SCAQMD staff concluded from the technical assessment that while the adhesion characteristics exhibited by the UV-curable coatings test would be acceptable in most other applications, for this particular niche refrigerated glass door coating process the adhesion by tape pull-off for the UV coating had less adhesion to the glass substrate than the epoxy ink that the facility currently uses. The facility operator specified that the adhesion by tape pull-off tests must rate no less than a 5B, which means that no material must come off the glass substrate when the tape is pulled off the test area. The facility operator considers any coating removed from the test area to be unacceptable. SCAQMD staff does recognize that one UV coated glass sample from the first series adhesion by tape pull off test did rate a 5B in all four quadrants, but all of the second series test samples rated a 3B, based on Figure 1 in ASTM D 3359-97. There were a total of twenty-eight adhesion by tape pull-off tests performed on the UV coated samples overall and twenty-four of those were rated 3B. The UV coated samples, based on the facility operator's rating system, showed that 86 percent of the UV coating adhesion by tape pull-off tests failed to perform to a 5B rating. In contrast, there were a total of twenty adhesion by tape pull-off tests performed on the epoxy ink coated glass sample panels. All epoxy ink coated glass sample panels that underwent twenty adhesion by tape pull-off tests showed a rating of 5B, which meets the performance standards for this refrigerated glass door coating operator. The epoxy inks have been used by the facility operator for the last 15 years and are known to work well and have less than a one percent failure in long-term field testing. Based on the results from the technical assessment, the significant costs involved to install the UV coating equipment for production and employee training, the multiple low VOC alternate coatings that were tested but did not perform well enough for this niche coating operation, and because the facility operator uses a small amount of coating that results in 2.1 pounds per day of VOC forgone, SCAQMD staff recommends amending the rule with the addition of a new refrigerated coating category that will allow the facility operator to continue to operate their coating system after their variance expires on December 31, 2009.

**Response 1-2**

The intent of Rule 1145 is to regulate the VOC content of rubber, leather and glass coatings to limit VOC emissions, which are ozone and PM precursors, from these products. As such Rule 1145 does not regulate the heavy metal content of affected coatings. The affected refrigerated glass door manufacturer currently uses coatings with heavy metals. Heavy metals were not included in the air toxics analysis because refrigerated glass door coatings are applied by roller. Solids are not emitted when coatings are applied by roller.

Even if the affected facility operator had found an applicable coating that could comply with the 120 gram per liter, VOC content requirement of the general two-component coatings, depending on the formulation, the coating could continue to contain the heavy metals identified by the commentator. In addition, the operator continued to apply a 480 g/L refrigerated glass door coating pursuant to a variance granted by the Hearing Board. Therefore, for the purposes of the CEQA analysis, the heavy metals content of the affected coatings is considered to be part of the baseline and is not an impact from implementing the proposed project.

The commentator has asserted that there are compliant UV coatings available that do not contain heavy metals. As indicated in Response to Comment 1-1, although there may be UV coatings that comply with the VOC content requirement for two component coatings, no UV coating tested to date can achieve the performance standard required by the affected facility.

**Response 1-3**

The UV coating applications identified by the commentator do not have the same performance requirements as refrigerated glass door coatings and, therefore, are not relevant to the proposed project. Also see the Response to Comment 1-1.

-----Original Message-----

**From:** Rita Loof [mailto:rml93@verizon.net]

**Sent:** Tuesday, July 21, 2009 7:24 PM

**To:** James Koizumi

**Cc:** Joseph Lyou; Bob Ulloa (Yates); Dennis Yates; Jane Carney; Lisha Smith (Gon); mkelly@alliedphotochemical.com; dgamble@uvexchange.com; Nicole Nishimura (Lyou); Don B Hopps

**Subject:** <SPAM> Re: MSDS for Enthone and Nazdar coatings

2-1 Hi James, thank you so much, you can fax the MSDS to 909-981-9374

2-2 Even if the inks are applied by roller, does CEQA not have to take into consideration the potential hazardous waste created?

2-3 Also, you had asked about other potential glass door manufacturers in the area, just doing a quick search, I found the one below in Los Angeles which appears to be manufacturing refrigerator doors. The company below was not included in the staff analysis and therefore the emissions inventory in the rule did not take these additional emissions into consideration.

Please let me know if further information is needed,

Rita

---

Company Profile

**Basic Information**

**Company Name:** California Wine Cabinets Inc DBA Westside Winecellars  
**Business Type:** Manufacturer  
**Product/Service (We Sell):** Wine cabinets, wine and can refrigerators, wine racks, wine cooling  
**Brands:** Vinotemp, Wine Mate  
**Number of Employees:** 51 - 100 People

**Trade & Market**

**Total Annual Sales Volume:** US\$10 Million - US\$50 Million

**Factory Information**

**Factory Location:** Los Angeles  
**Number of Production Lines:** 1  
**Number of R&D Staff:** 5 - 10 People  
**Number of QC Staff:** 5 - 10 People  
**Contract Manufacturing:** OEM Service Offered Design Service Offered Buyer Label Offered

On Jul 21, 2009, **James Koizumi** <JKoizumi@aqmd.gov> wrote:

Rita,

I thought your letter was the Red Spot comment letter. I did not have a copy of your letter, but Don Hopps forward a copy to me.



I only have the MSDSs in hardcopy. What mailing address should I use to send them to you?

Metals were not included in the air quality analysis because, the inks are applied by roller (i.e., they are not aerosolized).

Thanks,

James Koizumi  
Air Quality Specialist  
South Coast Air Quality Management District  
21865 Copley Drive Diamond Bar, CA 91765-4182  
[jkoizumi@aqmd.gov](mailto:jkoizumi@aqmd.gov)  
909.396.3234 phone  
909.396.3324 fax

**Responses to Comment Letter #2  
Radtech International North America  
July 29, 2009**

**Response 2-1**

The commentator had asked requested that SCAQMD staff provide the material safety data sheets (MSDSs) for refrigerated glass door coatings used by the affected facility. SCAQMD staff left a voice message for the commenter requesting information on how to provide the MSDSs. At the commentator's request SCAQMD staff faxed portions of the MSDSs to the fax number she provided. Her fax machine could not accommodate the volume of sheets comprising the MSDSs so hard copies were provided free of charge at the Public Information Center on a day when she was already at SCAQMD headquarters attending the Stationary Source Committee meeting where PAR 1145 was one of the agenda.

**Response 2-2**

Solid and hazardous wastes are topics evaluated in the environmental checklist. However, as explained in Response to Comment 1-2, the affected facility already uses coatings containing heavy metals. Further, even if the affected facility operator had found a coating that complies with the 120 gram per liter VOC content limit of two-component coatings, depending on the formulation of the coating, it could continue to contain heavy metals. In addition, the operator continued to apply a 480 g/L refrigerated glass door coating pursuant to a variance granted by the Hearing Board. As a result, hazardous waste from coatings containing heavy metals is considered part of the baseline and is not considered an impact from implementing the proposed project.

Because refrigerated door coating are applied by rollers, "flyby" wastes are not generated, such as those created using aerosolized application equipment that would require disposal. Further, the affected refrigerated glass door manufacturing facility has a settling processing system that adjusts pH and settles out metal. Metal from the processing system is sent out to a recycling center. Spent solvents are separated and sent to a fuel blending operation. The facility generates a total of 110 gallons per year of spent solvent from all coating operations that are provided to fuel blending facilities, with only a small portion of that stream from the refrigerated glass door operation. Since no solid or hazardous waste is generated by the refrigerated glass door operation; the refrigerated glass door coating amendment is not expected to have significant adverse solid or hazardous waste impacts.

**Response 2-3**

At SCAQMD's staff's request the commentator provided the information on California Wine Cabinets, Inc. DBA Westside Winecellars Manufacturer, claiming that it also manufactured refrigerated glass doors. SCAQMD has reviewed the company mentioned by the commentator and has determined that the company is a distributor of refrigerated cabinets. However, based on further review of the SCAQMD database, SCAQMD staff identified an existing company at the same location that conducts wood coating operations, but no glass door substrate coating processes. Since no coatings are applied at the facility it is not affected by PAR 1145 and there is no change to the emissions inventory for PAR 1145.



July 29, 2009

Mr. James Koizumi  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765

Re: Comments to Rule 1145 California Environmental Quality Act (CEQA)

Dear Mr. Koizumi:

3-1

RadTech has previously submitted comments to the Rule 1145 CEQA analysis. Subsequently, RadTech received additional information from district staff, including Material Safety Data Sheets, as well as comments from staff during the Stationary Source committee meeting of July 24, 2009. The following echo RadTech's comments during the public comment period regarding Rule 1145 at the Stationary Source committee meeting

3-2

RadTech is concerned that the proposed EA does not fully analyze the potential adverse environmental impacts that could be generated from the project. Specifically, the EA has not assessed the areas of "Solid/Hazardous Waste" and "Hazards & Hazardous Materials". The two environmental topics have not been checked off on the checklist found on page 2-2 of the draft EA. However, according to the data (MSDS's and draft EA) provided by district staff, the process proposed for exemption is currently using materials that contain the following Hazardous Air Pollutants (HAPs):

- Xylene (Dimethylbenzene)
- Toluene (Methylbenzene)
- Ethylbenzene
- Methyl Isobutyl Ketone
- Ethylene glycol monobutyl ether
- Propylene glycol monomethyl ether

3-3

While staff listed (Table B-5 page B-2 of EA) the chronic and acute health risks for ethylene glycol monobutyl ether, propylene glycol monomethyl ether, Xylenes, Toluene and Ethyl Benzene; **Methyl Isobutyl Ketone was not included in the analysis.**

During the committee meeting, Mr. Steve Smith commented that the current CEQA analysis did not take into consideration the Hazardous Air Pollutants (HAP) content in the materials because CEQA only looks at the proposed project and since the materials are part of an existing process, a CEQA analysis is not necessary. It is worth noting that the "existing" process referenced is

3-3  
cont.

currently operating under a variance for Rule 1145 and therefore is not representative of the current rule requirements. The proposed amendments to Rule 1145 are a relaxation to the existing rule and therefore merit a thorough CEQA analysis which includes the impacts of Hazardous Air Pollutants on air quality, water quality and hazardous waste generation. The draft EA report states (page 2-20)

*“The 2004 Final EA for PAR 1145 did not identify any substantial change in hazards or hazardous material adverse impacts from reformulating affected coatings to comply with a 120 gram per liter VOC content limit.”*

The baseline should be the 2004 EA for PAR 1145 and not a process which has been operating out of compliance with the board adopted requirements of Rule 1145. Therefore, when compared to the current version of Rule 1145, the 2009 PAR 1145 does represent an increase in the use of hazardous materials, which was not taken into consideration by the current draft EA. We urge the district to fully evaluate this issue in the EA.

It is not clear whether or not the emissions inventory took into consideration the emissions from the polyurethane sealant as the MSDS does not list local regulatory information or VOC content for the material. Additionally, one of the MSDS's states:

3-4

*“This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.”*

However, the EA does not include an Maximum Individual Cancer Risk analysis and it is unclear which chemical the warning is referring to.

We look forward to your prompt response on these matters. Please feel free to contact me at 909-981-5974 should you wish to discuss these issues further.

Sincerely,

Rita M. Loof  
Director, Environmental Affairs  
cc: Stationary Source committee

**RadTech International North America is a nonprofit trade association dedicated to the technical, educational and market advancement of ultraviolet and electron beam technology. RadTech has over 800 members that supply and use UV/EB equipment, raw materials and formulated products.**

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**Responses to Comment Letter #3  
Radtech International North America  
July 29, 2009**

**Response 3-1**

Responses to previous comments submitted by Radtech have been prepared (see responses to comment letters #1 and #2. Responses to specific comments in this comment letter are provided below.

**Response 3-2**

SCAQMD staff strongly disagrees with the commentator's opinion that the draft EA did not fully analyze the potential adverse impacts from the proposed project. The draft EA for PAR 1145 complies with all applicable CEQA requirements, including the requirement to analyze foreseeable impacts from a proposed project.

The comment appears to contain three separate issues: 1) toxic air contaminant (TAC) emissions, 2) solid/hazardous waste and 3) hazards and hazardous materials. Specific responses to each issue are provided in the following paragraphs.

**Toxic Air Contaminant Emissions**

With regard to TACs, the analysis in the EA is based, in part, on the following data in the Staff Report for PAR 1145, 176 gallons of the Nazdar coating and six gallons of the Enthone coating systems were used during the calendar year 2007, the highest annual usage reported. Therefore, a total of 182 gallons of refrigerated glass door coatings were used in the year with the highest reported usage. The coatings are applied by roller to the edges of the refrigerated glass doors. Since the refrigerator door coatings are applied by roller, they do not emit particulates, such as heavy metals.

The EA includes a conservative evaluation of potential health risks from TACs emitted from the 182 gallons of refrigerated glass door coatings per year. This analysis is considered a conservative analysis because it represents the year of highest coating usage. TACs analyzed in the health risk assessment (HRA) were identified from a sample of MSDSs for refrigerated glass door coatings used at the affected facility. None of the emitted TACs listed in the MSDSs have OEHHA cancer potency factors, therefore, the refrigerated glass door coatings do not pose a cancer risk. Ethylene glycol monobutyl ether, propylene glycol monomethyl ether, xylenes, toluene and ethyl benzene were the only components with OEHHA noncarcinogenic health risk values (reference exposure levels or RELs). Based on a screening health risk assessment for the TACs emitted, it was determined that the acute and chronic non-carcinogenic health risk was not significant.

The commentator expressed the opinion that methyl isobutyl ketone (MIBK) should have been included in the HRA analysis. MIBK was not included in the air toxic analysis because it does not have any health risk values (cancer potency, chronic or acute RELS) established by OEHHA and it is not a TAC listed in Rule 1401. Without any health risk values, a quantitative analysis cannot be done on MIBK.

Subsequent to receiving the commentator's letter, the commentator called SCAQMD staff and stated that the health risk analysis did not consider all coatings used, but was based on MSDSs from the coatings that are used most often. It should be noted that coatings used most often generate most of the risk. In response to the commentator, SCAQMD staff examined MSDSs from all coatings used by

the affected refrigerated glass door coating facility prepared a revised HRA based on the highest weight fractions of the TACs that are emitted. Worst-case emissions were estimated by identifying the highest composition of each TAC used in any coating and applying that composition to the highest annual coating usage reported. Based on a review of MSDSs for all coatings used at the affected facility no new TACs were identified. Since none of the components have cancer potency values identified by OEHHA, carcinogenic health risks from these compounds cannot be quantified. As shown in Table C-1, acute and chronic non-carcinogenic health risks were determined to be less than the acute and chronic hazard index significance threshold of 1.0.

**Table C-1  
Acute and Chronic Hazard Indices Based on a Worst-Case Composition of Toxic Air  
Components Listed in MSDSs from All Coatings Used**

Compound	CAS No.	Usage, ton/yr	Usage, lb/hr	X/Q [ug/m3]/ [ton/yr]	X/Qhr [ug/m3]/ [lb/yr]	MET	MP	CP (mg/kg- dy)-1	Chronic REL (ug/m3)	Acute REL (ug/m3)	Chronic HI	Acute HI
Ethyl benzene	100-41-4	0.0063	0.004	60.5	1,532	1.76	1.00	N/A	2,000	N/A	0.0003	N/A
Propylene glycol monomethyl ether	107-98-2	0.0776	0.053	60.5	1,532	1.76	1.00	N/A	7,000	N/A	0.0012	N/A
Toluene	108-88-3	0.0014	0.001	60.5	1,532	1.76	1.00	N/A	300	37,000	0.0005	0.00004
Ethylene glycol monobutyl ether	111-76-2	0.0001	0.000	60.5	1,532	1.76	1.00	N/A	N/A	14,000	N/A	N/A
Xylenes	1330-20-7	0.0464	0.032	60.5	1,532	1.76	1.00	N/A	700	22,000	0.0071	0.00221
Total											0.0091	0.0023
Significant?											No	No

**Solid and Hazardous Wastes**

Solid and Hazardous Wastes concerns raised by the commentator were addressed in Response to Comment 2-2. Further, since the affected facility operators send spent heavy metals to recycling facilities and spent solvents for fuel blending, the facility does not generate hazardous wastes from refrigerated glass door coating operations.

**Hazardous and Hazardous Material**

Since there are currently no refrigerated glass door coatings identified that meet the general two-component coating VOC content limit that are also able to meet the affected facility’s performance standards, it is speculative to evaluate the hazardous and hazardous material properties of these unknown refrigerated glass coatings. The coating systems used are composed of three components: ink, catalyst and thinner. The coatings are shipped in gallon, liter, quart and pint containers. The size of the component containers would limit the size of release. All coating operations, storage and transport are expected to occur on paved surfaces. Because of the small usage, coating components are likely shipped in small allotments on an as needed basis, and the fact that the coatings are transported and stored in three parts the accidental release or upset of the coating process, storage or transport, any accidental release is expected to be small in nature and, therefore, is not expected to generate significant impacts from release. The use of the existing coatings has not been found to

adversely impact schools, airport or airstrips, or impair or interfere with implementation of an adopted emergency response or evacuation plan. Therefore, the proposed project is not expected to result in significant adverse hazardous and hazardous material impacts.

**Response 3-3**

With regard to comments made by Dr. Smith at the Stationary Source Committee meeting, he was responding to the comment made by the Radtech representative that the EA should have evaluated the fact that the refrigerated door coatings contain hazardous materials. Since the only reference to hazardous materials made prior to the Stationary Source Committee meeting was related to heavy metal's, Dr. Smith's comments were in reference to the heavy metals components of the affected coatings. For additional information on this topic please see Response to Comment 1-2.

SCAQMD staff strongly disagrees with the commentator's opinion that the draft EA did not take into consideration the air quality impact of relaxing the VOC content requirement for refrigerated door coatings. The air quality analysis on pages 2-9 and 2-10 clearly states that analysis is based on the emission reductions foregone due to the fact that the proposed VOC content limit compared to the 120 gram per liter two-component coating VOC content limit (the 2004 VOC content limit) would be 2.1 pounds per day (see in particular Table 2-4).

With regard to TACs, the Draft EA included a comprehensive analysis of health risks from exposures to TACs in the affected coating. See the analysis in Appendix B. However, in response to a previous comment SCAQMD staff revised the HRA to include MIBC (see Response to Comment 3-2). Both HRA analyses used the assumption that all TACs contained in the affected coating would be emitted because there are currently no available compliant coatings with which to compare to the 2004 VOC content requirement. This is more conservative than the approach recommended by the commentator. Both the original and revised HRA results showed that, even using the conservative approach described above, health risks from exposure to TACs would not be significant. See also Response to Comment 3-2.

**Response 3-4**

The polyurethane sealant referenced is not regulated by Rule 1145, but by Rule 1168 – Adhesive and Sealant Applications. Therefore, PAR 1145 does not affect this product.