

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Subsequent Environmental Assessment for:

Proposed Amended Rule 1113 - Architectural Coatings

SCAQMD No. 020806MK

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PREFACE

This document constitutes the Final Subsequent Environmental Assessment (EA) for the amendments to Rule 1113 - Architectural Coatings. The Draft EA was released for a 30-day public review and comment period from August 6, 2002 – September 4, 2002. Four letters commenting on CEQA issues were received from the public. These four comment letters and responses to these comment letters can be found in Appendix H. Minor modifications have been made to the Draft such that it is now a Final EA. Deletions and additions to the text of the EA are denoted using ~~striketrough~~ and *italics*, respectively.

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CHAPTER 1

LEGISLATIVE AUTHORITY AND EXECUTIVE SUMMARY

Introduction

Legislative Authority

California Environmental Quality Act

**CEQA Documentation for Proposed Amended Rule 1113 – Architectural
Coatings**

Intended Uses of this Document

Areas of Controversy

Executive Summary

INTRODUCTION

Rule 1113 – Architectural Coatings, was originally adopted by the South Coast Air Quality Management District (SCAQMD) on September 2, 1977, to control volatile organic compound (VOC) emissions from architectural coatings. Rule 1113 was amended in 1999 to implement, in part, both the 1994 and the 1997 Air Quality Management Plan (AQMP) control measure CTS-07 – Further Emission Reductions from Architectural Coatings, which calls for a reduction of the allowable VOC content limit per liter of coating from the following coating categories: industrial maintenance (IM); non-flats; primers, sealers, and undercoaters; quick-dry enamels; quick-dry primers, sealers, and undercoaters; roof coatings; stains; and waterproofing wood sealers. The 1999 amendments to Rule 1113 also added several new coating categories, ~~bituminous roof coatings, chemical storage tank coatings, essential public service coatings, bituminous roof primers,~~ floor coatings, high temperature industrial maintenance coatings, nonflats, quick-dry primers, sealers, and undercoaters, recycled coatings, rust preventative coatings, specialty primers, *zinc-rich IM primers*, and waterproofing concrete/masonry sealers, as well as expand and clarify the averaging provision to provide additional flexibility to manufacturers.

Pursuant to the California Environmental Quality Act (CEQA) (California Public Resources Code §§21000 *et seq.*), a Draft Subsequent Environmental Assessment (SEA) was prepared to analyze potential adverse environmental impacts from implementing the 1999 amendments to Rule 1113. Based upon an initial evaluation in the Notice of Preparation and Initial Study (NOP/IS) prepared for the 1999 amendments and released to the public on October 28, 1998, the following environmental topics were identified as having the potential to be adversely affected by the proposed amendments and are analyzed in this document: air quality, water resources, and public services. Additionally, based on comments received on the NOP/IS and at various Industry Working Group meetings and industry meetings, this Draft SEA also includes an analysis of the following environmental topics: transportation/circulation, solid/hazardous waste, hazards, and human health. Results of that analysis indicated that the 1999 amendments would not generate any significant adverse environmental impacts. The Final SEA for the 1999 amendments to Rule 1113 was certified by the SCAQMD Governing Board on May 14, 1999.

After adoption of the 1999 amendments to Rule 1113, three lawsuits were filed against the SCAQMD that were subsequently consolidated as one matter by the court. Although the SCAQMD prevailed in the trial court, on June 24, 2002, the Court of Appeal reversed the decision of the trial court, holding that two amendments to address user concerns that were made after the notice of public hearing was published were so significant as to require a continuance of the Board hearing and as a result, the Court of Appeal vacated the SCAQMD's adoption of the 1999 amendments to Rule 1113. In response to the

Court's decision to vacate the 1999 amendments to Rule 1113, the SCAQMD is proposing to readopt the 1999 amendments and incorporate the modifications to the 1999 amendments that were made after the notice of public hearing was published into the currently proposed amendments. In connection with readopting the 1999 amendments to Rule 1113 plus the modifications, the SCAQMD has prepared this Draft SEA to evaluate potential adverse environmental impacts of the 1999 amendments as revised. This Draft SEA incorporates the analysis of environmental impacts from the 1999 Final SEA for proposed amended Rule 1113, updated environmental analysis based on the modifications incorporated into the currently proposed project, and updated information on the availability and characteristics of coatings that comply with the VOC content limits of the currently proposed amendments to Rule 1113.

On July 20, 2001, in response to a concern raised by a coating manufacturer, the SCAQMD Governing Board approved a new category for clear wood finish brushing lacquers with an allowable VOC content of 680 grams per liter to be lowered to 275 grams per liter by January 1, 2005. The rule amendments also established labeling and reporting requirements for such brushing lacquers to ensure their proper use and thus minimize emissions. Although the 1999 amendments are not currently effective, the new limit for clear wood finish brushing lacquers established in July 2001 remain in effect. A Final EA was prepared for the 2001 amendments to Rule 1113 to evaluate potential adverse environmental effects of those amendments. The results of that analysis have been incorporated into this Draft SEA.

LEGISLATIVE AUTHORITY

The California Legislature created the SCAQMD in 1977 (Lewis-Presley Air Quality Management Act, Health and Safety Code §§40400 et seq.), as the agency responsible for developing and enforcing air pollution control rules and regulations within the SCAQMD's area of jurisdiction. By statute, the SCAQMD is required to adopt an AQMP demonstrating compliance with all state and national ambient air quality standards for the SCAQMD's area of jurisdiction [Health and Safety Code §40460(a)]. Furthermore, the SCAQMD must adopt rules and regulations that carry out the AQMP [Cal. Health and Safety Code, §40440(a)]. The 1999 amendments to Rule 1113 were originally adopted pursuant to these mandates. Because of the substantial VOC emission reductions anticipated for the 1999 amendments (21.8 tons per day), it is necessary for the SCAQMD to move expeditiously to readopt these amendments to ensure attainment of the state and national ambient air quality standards for ozone by the timeframes mandated under state and federal law.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

PAR 1113 is a "project" as defined by the CEQA (Cal. Public Resources Code §§21000 et seq.). The SCAQMD is the lead agency for this project and is preparing the appropriate environmental analysis pursuant to its certified regulatory program (SCAQMD Rule 110). 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 once the Secretary of the Resources Agency has certified the regulatory program. The Secretary of the Resources Agency certified the SCAQMD's regulatory program on March 1, 1989.

Rule 110 requires an assessment of anticipated environmental impacts as well as an analysis of feasible methods to substantially reduce any significant adverse environmental impacts. To fulfill the purpose and intent of Rule 110, the SCAQMD has prepared this Draft SEA to address the potential adverse environmental impacts associated with implementing PAR 1113. This Draft SEA is 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; (b) be used as a tool by decision makers to facilitate decision making on the proposed project; and c) respond to the court decision vacating the 1999 amendments to Rule 1113.

PREPARATION OF A SUBSEQUENT ENVIRONMENTAL ASSESSMENT

As previously noted, the SCAQMD is required to prepare and adopt an AQMP containing strategies, i.e., control measures for attaining and maintaining all of the state and national ambient air quality standards. The last AQMP was adopted in 1997¹ and amendments were made in December 1999. The 1999 amendments did not affect the control measure for architectural coatings. As part of that effort, a program EIR for the 1997 AQMP was prepared pursuant to CEQA Guidelines §15168(a)(3) because the AQMP is related to the issuance of rules, regulations, plans or other general criteria to govern the conduct of a continuing program. The 1997 AQMP EIR evaluated all control measures contained in the plan, including control measure (CM) CTS-07, which this project implements. As permitted under §15168, the 1997 AQMP Program EIR dealt with the cumulative impacts of all AQMP control measures including CM CTS-07. In addition, that document found no project-specific significant environmental impacts associated with the implementation of CM CTS-07 at that time. The 1997 AQMP EIR is incorporated herein by reference. The 1997 AQMP EIR was challenged by the paint

¹ Amendments to the 1997 AQMP were adopted by the SCAQMD Governing Board to address the USEPA's proposed (at that time) disapproval of the 1997 AQMP. In conjunction with the 1999 amendments to the 1997 AQMP, a Supplemental Environmental Impact Report (EIR) to the previously certified Final EIR was prepared to analyze potential adverse impacts of the 1999 amendments.

industry as to its evaluation of CTS-07. That challenge was rejected by the Superior Court in February of 1999. This decision was upheld by the Court of Appeal.

To analyze potential adverse impacts from implementing 1997 AQMP control measure CTS-07, the SCAQMD prepared a Draft SEA in 1999, which was a subsequent CEQA document to the 1997 AQMP Program EIR. As explained in the subsection below entitled “The Court Order”, the 1999 Draft SEA complied with the 1990 Dunn-Edwards Corporation, et. al. v. SCAQMD court order.

On June 24, 2002, the Court of Appeal vacated the 1999 Amendments to Rule 1113 on procedural grounds. As a result, the Court did not consider further the merits of the case. This means that the Final SEA for the 1999 amendments to Rule 1113 was not affected by the Court’s decision. To address the Court’s concerns and as part of readopting the 1999 amendments to Rule 1113 as modified, the SCAQMD has prepared this Draft SEA to the Final SEA for the 1999 amendments to Rule 1113 pursuant to CEQA Guidelines §15162.

CEQA DOCUMENTATION FOR RULE 1113 - ARCHITECTURAL COATINGS

In addition to this Draft SEA, a number of CEQA documents have been prepared for previous amendments to Rule 1113. The following subsections briefly summarize the previously prepared CEQA documents for Rule 1113.

July 2001 – Final Environmental Assessment - Proposed Amendments to Rule 1113 - Architectural Coatings

In July 2001, the SCAQMD Governing Board adopted amendments to Rule 1113. The amendments included the creation of a new coating category for clear wood finish brushing lacquers with an allowable VOC content of 680 grams per liter until January 1, 2005 when the clear wood finish brushing lacquers are limited to a VOC content of 275 grams per liter. The rule amendments also established labeling and reporting requirements for such brushing lacquers to ensure their proper use and thus minimize emissions. By postponing compliance with the existing VOC content limit requirement for lacquers in general, the EA prepared for this amendment concluded that 162 pounds of anticipated VOC emission reductions per day would be foregone until the clear brushing lacquers are required to comply with the final VOC content limit in 2005.

May 1999 – Final Subsequent Environmental Assessment - Proposed Amendments to Rule 1113 - Architectural Coatings

In May 1999, the SCAQMD Board adopted amendments to Rule 1113. The amendments call for a reduction of the allowable VOC content limit per liter of coating from the following coating categories: industrial maintenance; non-flats; quick-dry enamels; primers, sealers, and undercoaters; quick-dry primers, sealers, and undercoaters; stains; roof coatings; and waterproofing wood sealers. PAR 1113 also added several new coating categories, high temperature industrial maintenance coatings, rust preventative coatings, bituminous roof coatings, recycled flats and nonflats, essential public service coatings, floor coatings, and waterproofing concrete/masonry sealers, as well as expanded and clarified the averaging provision to provide additional flexibility to manufacturers. At full implementation of the amendments, the overall VOC emission reductions are approximately 21.8 tons per day by year 2010.

A NOP/IS (included herein as Appendix B) was distributed to responsible agencies and interested parties for a 30-day review and comment period ending December 1, 1998. The NOP/IS identified potential adverse impacts for the following environmental topics: air quality, water resources (e.g., water demand and water quality), and public services. The SCAQMD received 10 comment letters during the public comment period. Additionally, CEQA-related comments were received during oral testimony given at a Public Workshop/CEQA Scoping Meeting held December 9, 1998, and during various Industry Working Group and other industry meetings. SCAQMD staff's responses to the CEQA-related comments submitted on the NOP/IS as well as the comments provided at the CEQA Scoping Meeting, and during various Working Group and industry meetings are presented in Appendix C of this Draft SEA.

A Draft SEA was released for a 30-day public review and comment period from March 23, 1999 to April 21, 1999. The Draft SEA analyzed potential adverse environmental impacts from implementing proposed project to the following environmental topics: air quality, water resources, public services, transportation/circulation, solid/hazardous waste, hazards, and human health. The Draft EA concluded that the proposed project would not generate significant adverse impact in any environmental areas. Seven comment letters were received from the public and responded to in a Final SEA, which was certified by the SCAQMD Governing Board on May 14, 1999. On June 24, 2002, the Court of Appeal vacated the SCAQMD's adoption of the 1999 amendments and, therefore, these amendments are not currently in effect.

November 1996 – Final Subsequent Environmental Assessment - Proposed Amendments to Rule 1113 - Architectural Coatings

In November 1996, the SCAQMD Board adopted amendments to Rule 1113. These amendments reduced the VOC content limits of four coating categories: lacquers, flats

(interior and exterior), traffic coatings, and multi-color coatings, resulting in an overall net reduction of 10.3 tons per day VOC emissions from this source category. In addition, the amendments temporarily increased the VOC content limits for four coating categories. Other components of the proposed amendments included addition of and modification to some definitions, updating the analytical test methods, and establishing an averaging methodology for flats to provide flexibility for complying with future VOC content limits.

Subsequent to the adoption of the amendments to Rule 1113, industry filed three separate lawsuits, questioning the validity of the proposed future limits for the lacquer and flat coating categories. The SCAQMD has prevailed at the Superior Court level in all three cases.

August 1996 – Final Environmental Assessment - Proposed Amendments to Rule 1113 - Architectural Coatings

These amendments incorporated an exemption from the VOC limits for coatings sold in containers one-quart size or less. The analysis in the Final Environmental Assessment concluded that adopting a small container exemption would result in significant adverse air quality impacts.

February 1990 - Determination of No Significant Impacts - Proposed Amendments to Rule 1113 - Architectural Coatings.

In February 1990, the SCAQMD Governing Board adopted amendments to Rule 1113 - Architectural Coatings that were based on the California Air Resources Board (CARB) and California and Air Pollution Control Officers Association (CAPCOA) Suggested Control Measure (SCM). The 1990 amendments included the following provisions: exemptions for 11 categories of specialty coatings were eliminated, leaving only exemptions for quart or smaller containers and emulsion type bituminous pavement sealers; lower VOC content limits for 15 new coating categories; technology-forcing low VOC limits for ten existing coating categories effective December 1, 1993; consolidation of the industrial maintenance coating categories from ten to three; and reorganization of the subdivisions of the rule.

The 1990 Court Order

In 1990, the Dunn-Edwards Corporation challenged the 1990 amendments to Rule 1113 in court (Dunn-Edwards Corporation, et. al. v. SCAQMD). That case challenged, in part, the CEQA document prepared for the amendments to Rule 1113 adopted in February 1990, specifically the amendments that lowered the VOC limits for the following six coating categories: industrial maintenance high temperature coatings; industrial maintenance anti-graffiti coatings; industrial maintenance primers and topcoats; lacquers;

quick-dry primers and sealers; and quick-dry enamels. The lawsuit alleged that the CEQA document was inadequate because it did not fully analyze potential significant adverse air quality impacts in seven areas that were alleged to arise from implementing the lower VOC content limits. The SCAQMD prevailed in six of the seven alleged impact areas, but the lower court requested the SCAQMD to further study whether or not illegal thinning of coatings in the field resulted in a negative air quality impact before readopting the February 1990 amendments.

The results of an architectural coatings field study undertaken during the latter half of 1998 by CARB staff, with the help of local air pollution control and air quality management district personnel, suggest that there is not a significant amount of thinning resulting in noncompliant architectural coatings. Thirty-six percent of the coatings sampled were solvent-borne. Fifty-three percent of these were thinned with material containing volatile organic compounds. However, of all of the solvent-borne coatings sampled, only 14 percent were thinned and noncompliant with district rules. Overall, solvent-borne thinned, noncompliant coatings made up only five percent of all the coating observed.

While the SCAQMD agreed to study the illegal thinning issue, the plaintiff appealed the court's decision to dismiss their claims regarding the six other potential air quality impacts. In 1993, the Court of Appeals in a published decision (*Dunn-Edwards Corporation, et. al. v. SCAQMD*) rejected the plaintiffs' appeal. Plaintiffs then appealed the appellate decision to the California Supreme Court that denied review on December 2, 1993.

The CEQA analysis in the 1999 Final SEA and this Draft SEA includes an analysis of illegal thinning in the field and, therefore, complies with the court's request. The Orange County Superior Court upheld the 1999 Final EA as complying with the 1990 Court Order.

Other Rule 1113 Amendments

Rule 1113 has been amended a number of times since January 1, 1990, as summarized in the following bullet points. For each amendment described below a Notice of Exemption was prepared.

- **March 8, 1996** - These amendments established a definition for aerosol coatings consistent with the CARB, revised the definition of exempt compounds by referencing Rule 102 - Definition of Terms, and created an exemption for aerosol coatings.
- **September 6, 1991**- These amendments created a new coating category, low-solids stain, and also incorporated a calculation method for determining VOC content on a materials basis. The amendment also

prohibited use of Group II exempt compounds, including ozone-depleting chlorofluorocarbons (CFCs) and several toxic solvents.

- **December 7, 1990** - These amendments incorporated new definitions for specialty coatings and established a specific VOC content limit in the table of standards.
- **November 2, 1990** - These amendments incorporated new definitions for specialty coatings and established a specific VOC content limit in the table of standards.
- **February 2, 1990** These amendments incorporated new definitions for specialty coatings and established a specific VOC content limit in the table of standards.

INTENDED USES OF THIS DOCUMENT

In general, a CEQA document is an informational document that informs a public agency's decision-makers, and the public generally, of potentially significant adverse environmental effects of a project, identifies possible ways to avoid or minimize the significant effects, and describes reasonable alternatives to the project (CEQA Guidelines §15121). A public agency's decision-makers must consider the information in a CEQA document prior to making a decision on the project. Accordingly, this revised Draft EA is intended to: (a) provide the SCAQMD Governing Board and the public with information on the environmental effects of the proposed project; (b) be used as a tool by the SCAQMD Governing Board to facilitate decision making on the proposed project; and c) respond to the court decision vacating the 1999 amendments to Rule 1113

Additionally, CEQA Guidelines §15124(d)(1) requires a public agency to identify the following specific types of intended uses of a CEQA document:

1. A list of the agencies that are expected to use the EA in their decision-making;
2. A list of permits and other approvals required to implement the project; and
3. A list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies.

To the extent that local public agencies, such as cities, county planning commissions, etc., are responsible for making land use and planning decisions related to projects that must comply with the proposed amendments to Rule 1113, they could possibly rely on this EA during their decision-making process. Similarly, other single purpose public agencies approving projects at facilities complying with the proposed amendments to Rule 1113 may rely on this EA.

AREAS OF CONTROVERSY

In accordance to CEQA Guidelines §15123(b)(2), the areas of controversy known to the lead agency including issues raised by agencies and the public shall be identified in the EA. Table 1-1 highlights the areas of controversy raised by the public during the rule development process either in public meetings or in written comments.

TABLE 1-1
Areas of Controversy

	Area of Controversy	Topics Raised by Public	SCAQMD Evaluation
1.	More Thickness	Reformulated compliant water- and solvent-borne coatings are very viscous and, therefore, are difficult to handle during application.	Currently available low-VOC coatings are not necessarily formulated with a higher solids content and a higher solids content does not result in a significant reduction in the coverage area.
2.	Illegal Thinning	Thinning occurs in the field in excess by the SCAQMD rule limits. Thinning the coating reduces its viscosity to make them easier to handle and apply.	Thinning should not be a problem because a majority of the coatings that would comply with future limits will be waterborne formulations. Even if some thinning occurs, thinning would likely be done with water or exempt solvents.
3.	More Priming	Reformulated compliant low-VOC water- and solvent-borne topcoats do not adhere as well as higher-VOC solvent-borne topcoats to unprimed substrates, which must be primed with typical solvent-borne primers to enhance the adherence quality.	The material needed and time necessary to prepare a surface for coating is approximately equivalent for conventional and low-VOC coatings. More primers are not needed because low-VOC coatings possess comparable coverage to conventional coatings, similar adhesion qualities and consistent resistance to stains, chemicals and corrosion.
4.	More Topcoats	Reformulated compliant low-VOC water- and solvent-borne topcoats may not cover, build, or flow-and-level as well as the solvent-borne formulations. Therefore, more coats are necessary to achieve equivalent cover and coating build-up.	Both low-VOC and conventional coatings have comparable coverage and superior performance. With comparable coverage and equivalent durability qualities, additional topcoats for low-VOC coatings should not be required.
5.	More Touch-Ups and Repair Work	Reformulated compliant low-VOC water- and solvent-borne formulations dry slowly, and are susceptible to damage, such as sagging, wrinkling, alligatoring, or becoming scraped and scratched. These problems require additional coatings for repair and touch-up.	Based on the durability characteristics information contained in the coating product data sheets, low-VOC coatings and conventional coatings have comparable durability characteristics. It is not anticipated that more touch-up and repair work will be needed.
6.	More Frequent Recoating	Durability of the reformulated compliant water- and low-VOC solvent-borne coatings is inferior to the durability of the traditional solvent-borne coatings, and therefore, frequent recoating would be necessary resulting in greater total emissions.	Coating manufacturer's own data sheets indicate that the low-VOC coatings for both architectural and industrial maintenance applications are durable and long lasting. Durability qualities of the low-VOC coatings are comparable to the conventional coatings and thus, more frequent recoatings would not be necessary.

TABLE 1-1(CONCLUDED)

Areas of Controversy

	Area of Controversy	Topics Raised by Public	SCAQMD Evaluation
7.	Substitution	Consumers and contractors will substitute better performing coatings in other categories for use in categories with low compliance limits because reformulated compliant water- and low-VOC solvent-borne coatings are inferior to the durability and are more difficult to apply.	There are a substantial number of low-VOC coatings that have performance characteristics comparable to conventional coatings. Also, PAR 1113 prohibits the application of certain coatings in specific settings, and the type of performance desired in some settings would prohibit the use of certain coatings in those settings. PAR 1113 also requires that when a coating can be used in more than one coating category the lower limit of the two categories is applicable.
8.	More Reactivity	Reformulated compliant water- and low-VOC solvent-borne coatings contain solvents that are more reactive than the solvents used in conventional coating formulations. The use of waterborne coatings is typically recommended for use between May and October, which is peak season for ozone formation.	In the absence of actual reactivity numbers for the compounds contained in “traditional” solvent formations and compliant, low-VOC coatings, emission must be calculated in the standard manner of total VOC per unit of coating applied manner. A Reactivity Research Work Group, consisting of federal and state regulatory personnel, government and academic research scientists, air quality consultant and industry representatives, has been formed to improve the scientific basis on the reactivities of organic compounds. An initial assessment report was prepared which identified the state of science with respect to VOC reactivity. Additional work is needed in order to reduce the uncertainty associated with different approaches to assessing reactivity. A database of physical and chemical properties for common solvents has been developed to enable users to quickly evaluate properties of solvents.

EXECUTIVE SUMMARY

The organization of this Draft SEA is as follows: Chapter 1 – Legislative Authority and Executive Summary; Chapter 2 – Project Description; Chapter 3 – Existing Setting; Chapter 4 – Environmental Impacts and Mitigation Measures; and, Chapter 5 – Project Alternatives. The following subsections briefly summarize the contents of each chapter.

Summary of Chapter 1 – Legislative Authority and Executive Summary

This Chapter contains a discussion of the legislative authority of the SCAQMD to adopt rules and regulations to implement the current AQMP. It also provides the basis for preparing a subsequent CEQA document to the 1997 AQMP Final Program EIR. This chapter also provides a summary of the content of each chapter.

Summary of Chapter 2 – Project Description

In addition to including a description of the project location, Chapter 2 also includes a brief description of PAR 1113. Briefly, the proposed amendments to Rule 1113 would:

- ✓ Reduce the VOC content limit for industrial maintenance; non-flats; primers, sealers, and undercoaters; quick-dry enamels; quick-dry primers, sealers, and undercoaters; roof coatings; stains; and waterproofing wood sealers; Interim limits as well as final compliance limits are proposed. In addition, it is proposed that small businesses have an extended compliance date;
- ✓ Add several new coating categories, ~~bituminous roof coatings, chemical storage tank coatings, essential public service coatings,~~ *bituminous roof primers*, floor coatings, high temperature industrial maintenance coatings, industrial maintenance coatings, nonflats, recycled coatings, roof coatings, rust preventative coatings, specialty primers, *zinc-rich IM primers*, and waterproofing concrete/masonry sealers;
- ✓ Delete the current exemption for quick-dry primers, sealers, and undercoaters;
- ✓ Clarify definitions for some categories to be consistent with the National Architectural/Industrial Maintenance (AIM) Rule;
- ✓ Expand and simplify the existing Rule 1113 averaging provision to include additional coating categories and ceiling limits; and
- ✓ Clarify labeling requirements.

For a complete description of the proposed amendments the reader is referred to Appendix A.

Summary of Chapter 3 - Existing Setting

Pursuant to the CEQA Guidelines §15125, Chapter 3 – Existing Setting, includes descriptions of those environmental areas that could be adversely affected by PAR 1113.

The following subsections briefly highlight the existing settings for those environmental areas that could be adversely affected by implementing PAR 1113.

Air Quality

Over the last decade and a half, there has been significant improvement in air quality within the area of the SCAQMD's jurisdiction. Nevertheless, several air quality standards are still exceeded frequently and by a wide margin. Of the National Ambient Air Quality Standards (NAAQS) established for six criteria pollutants (ozone, lead, sulfur dioxide, nitrogen dioxide, carbon monoxide, and PM10), the area within the SCAQMD's jurisdiction is only in attainment with the sulfur dioxide, nitrogen dioxide, and lead standards. Chapter 3 provides a brief description of the existing air quality setting for each criteria pollutant, as well as the human health effects resulting from each criteria pollutant.

Water

The State Water Resources Control Board (SWRCB) and the nine regional water quality control boards (RWQCB) are responsible for protecting surface and groundwater supplies in California, regulating waste disposal, and requiring cleanup of hazardous conditions (California Water §§13000 - 13999.16). In particular, the SWRCB establishes water-related policies and approves water quality control plans, which are implemented and enforced by the RWQCBs. Five RWQCBs have jurisdiction over areas within the boundaries of the SCAQMD's area of jurisdiction. These agencies also regulate discharges to state waters through federal National Pollution Discharge Elimination System (NPDES) permits. Discharges to publicly owned treatment works (POTW) are regulated through federal pre-treatment requirements enforced by the POTWs.

Total water demand within the district is estimated by the Metropolitan Water District of Southern California (MWD) to be approximately 1.9 million acre-feet² (MAF) in calendar year 2005. The MWD's service area includes southern Los Angeles county, including the San Gabriel and San Fernando Valleys, all of Orange County, the western portion of Riverside County, and the Chino Basin in southwestern San Bernardino County. The MWD estimates a supply of 3.0 MAF by year 2005, providing a potential reserve capacity of 1.1 MAF. Local water districts within the MWD service area drew the remaining water from local water sources. About 89 percent of water consumed in the MWD region goes to urban uses with the rest going to agriculture (Rodrigo, 1996).

Public Services

Public services offered and available within the Basin are extensive and numerous although statistical data specific to the Basin are not available. Information concerning

²One acre foot (AF) is equivalent to 325,800 gallons.

public services was obtained from references that outlined data by county or by the Southern California Association of Governments (SCAG) Region. The following public service areas are discussed in this section: schools, law enforcement, and fire protection.

Transportation/Circulation

The agencies that share authority for transportation-related programs in the SCAQMD's area of jurisdiction include the SCAG, the county transportation authorities, local government transportation departments, Caltrans, and the SCAQMD. For the purposes of the AQMP, however, the SCAQMD and SCAG share the responsibility for developing transportation-related control measures in the AQMP. SCAG develops transportation plans for the region, including the Regional Mobility Element (RME) and the Regional Transportation Improvement Program (RTIP), which detail all of the capital and non-capital improvements to the transportation system that will occur between now and 2010. This chapter also includes descriptions of the various transportation and transit systems.

Both federal conformity regulations and state law require transportation plans to show increases in average vehicle ridership, decreases in vehicle trips and vehicle miles traveled, and restrict growth in vehicle emissions. Currently, for home-to-work commute trips in the district, about 75.6 percent of people drive alone, 18.8 percent share a ride and 5.6 percent use public transit.

Solid/Hazardous Waste

Solid wastes consist of residential wastes (trash and garbage produced by households), construction wastes, commercial and industrial wastes, home appliances and abandoned vehicles, and sludge residues (waste remaining at the end of the sewage treatment process). A total of 32 Class III active landfills and two transformation facilities are located within the district with a total disposal capacity of 111,198 tons per day. Los Angeles County has 14 active landfills with a permitted capacity of over 58,000 tons per day. San Bernardino County has nine public and private landfills within the district's boundaries with a combined permitted capacity of 11,783 tons per day. Riverside County has 12 active sanitary landfills with a total capacity of 14,707 tons per day. Each of these landfills is located within the unincorporated area of the county and is classified as Class III. Orange County currently has four active Class III landfills with a permitted capacity of over 25,000 tons per day.

Hazards

Potential hazard impacts may be associated with the production, use, storage, and transport of hazardous materials. For the purposes of this Draft SEA, the term hazardous materials refers to both hazardous materials and hazardous wastes. Hazardous materials may be found at industrial production and processing facilities. Examples of hazardous materials used on a consumable basis include petroleum, solvents, and coatings.

Currently, hazardous materials are transported throughout southern California in great quantities via all modes of transportation including rail, highway, water, air and pipeline.

Hazard concerns are also related to the risks of explosions, the release of hazardous substances, or exposure to air toxics. State law requires detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of to prevent or mitigate injury to health or the environment in the event that such materials accidentally released. Federal laws, such as the Emergency Planning and Community-Right-to-Know Act of 1986 (also known as Title III of the Superfund Amendments and Reauthorization Act or SARA) impose similar requirements.

This section also describes the reporting system for reporting accidental releases of hazardous materials. Data are provided for the number of hazardous materials releases in 1996, 1997, 1998, statewide and for the four counties within the SCAQMD's jurisdiction. In addition, data are provided for releases of materials that could be used to formulate conventional and future compliant architectural coatings.

Human Health

This section briefly describes the existing setting for human health as it is affected by emissions from existing coating formulations. As noted in this section, the actual effects of exposure to coatings depend on such factors as the exposure duration, potency of the solvents of concern, exposure frequency, and other factors. A table is included that shows the solvents that are currently used to formulate AIM coatings that are considered to be toxic substances. The table also shows the range of adverse human health effects for each toxic substance.

Summary of Chapter 4 – Environmental Impacts and Mitigation Measures

CEQA Guidelines §15126.2(a) requires a CEQA document to “identify and focus on the significant environmental effects of the proposed project... Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects.”

The following subsections briefly summarize the analysis of potential adverse environmental impacts from the adoption and implementation of PAR 1113.

Air Quality

The adoption and implementation of PAR 1113 is expected to produce substantial long-term VOC emission reductions. The analysis concludes that air quality impacts associated with the proposed amendments to Rule 1113 will be insignificant.

Based on the analysis of potential direct and indirect air quality effects of implementing PAR 1113 in Chapter 4, it is concluded that once the lower VOC content limits are

implemented the overall air quality effects of the PAR 1113 will be a VOC emission reduction of approximately 21.8 tons per day by the year 2010.

Eight areas of concern were identified that could result in increased indirect VOC emissions due to a requirement to lower the VOC content of coatings. The eight alleged impacts (raised in the industry's prior litigation) are: increased coating thickness, more thinning, more topcoats, more touch-ups, more priming, more frequent recoating, more substituted coatings, and reactivity. The first seven issues all essentially assert that the new formulations, either solvent-based or water-based, result in more coating use resulting in an overall increase in VOC emissions for a specific area covered or over time. The eighth issue involves the assertion that more reactive solvents will be used in the compliant reformulations than the solvents used in the solvent-based coatings. All eight areas were analyzed in depth in Chapter 4. The result of this analysis reveals that overall PAR 1113 will achieve significant VOC emission reductions.

Water Resources

Impacts on water resources are divided into two categories - water demand and water quality. Water resources impacts are considered significant if they cause changes in the course of water movements or of drainage or surface runoff patterns; substantially degrade water quality; deplete water resources; significantly increase toxic inflow to public waste water treatment facilities; or interfere with groundwater recharge efforts.

Water Demand

Increased water demand from the manufacturing and use of compliant water-borne coatings is evaluated in Chapter 4. The analysis concludes that water demand impacts associated with the proposed amendments to Rule 1113 will be insignificant. The analysis reveals that there is sufficient capacity to meet the water demand associated with the implementation of PAR 1113. Furthermore, the MWD and other water providers are currently exploring various strategies for increasing water supplies and maximizing the use of existing supplies. Options include storage of water from existing sources, use or storage of water unused by other states or agricultural agencies, and advance delivery of water to irrigation districts. These continuing and future water management programs assure that the area's full-service water demands will be met at all times.

No significant impacts are anticipated, therefore, no mitigation measures are necessary. Cumulative impacts are also considered not significant

Water Quality

Based upon the analyses, PAR 1113 is not expected to create significant adverse water quality impacts for the following reasons. Use of exempt solvents is expected to result in equivalent or lesser water quality impacts than currently used solvents since the exempt

solvents are less toxic coalescing solvents. Further, because currently available compliant coatings are already based on water-borne technology, no additional water quality impacts from future compliant water-borne coatings are expected because these coatings are also expected to be water based. Finally, PAR 1113 is not expected to promote the use of compliant coatings formulated with hazardous solvents that could create water quality impacts.

No significant impacts are anticipated, therefore, no mitigation measures are necessary. Cumulative impacts are also considered not significant.

Public Services

Impacts on public services are divided into two categories – maintenance at public facilities and fire departments. Public Services impacts are considered significant if they will result in the need for new or altered public facilities or services or if fire departments would have to respond more frequently to accidental release incidences and conduct additional inspections.

Maintenance at Public Facilities

Based upon the qualitative and, when available, quantitative durability descriptions in the coating product information sheets, staff concluded that low VOC coatings have durability characteristics comparable to conventional coatings. In addition, specific components of power, municipal wastewater, water, bridges and other roadways for essential public services that require protective coatings not widely available are allowed a slightly higher interim VOC content limit. However, the essential public service coating would be required to reach the original final compliance limit. Therefore, no significant public services (e.g., maintenance at public facilities) impacts are anticipated from the implementation of PAR 1113. As a result, no mitigation measures are necessary. Cumulative impacts are also considered not significant.

Fire Departments

There is not expected to be any significant increase in accidental hazardous materials releases due to the use of compliant coating materials. While potential additional trips may result, as shown in Chapter 4, any such increase would be insignificant. Additionally, as demonstrated in the “Human Health” and “Hazards” sections, future compliant coating materials are not expected to cause significant adverse human health impacts or risk of upset, so accidental release scenarios would not be expected to pose a significant risk to responding firefighters

No significant impacts are anticipated, therefore, no mitigation measures are necessary. Cumulative impacts are also considered not significant.

Transportation / Circulation

The potential additional trips caused by the disposal of coatings due to shorter shelf lives, pot lives, or lesser freeze-thaw capabilities as compared to conventional coatings are evaluated and presented in Chapter 4. The analysis concludes that transportation/circulation impacts associated with the proposed amendments to Rule 1113 will be insignificant. Therefore, no mitigation measures are necessary. Cumulative impacts are also considered not significant.

Solid / Hazardous Waste

The solid waste evaluation examined increased disposal of coatings due to shorter shelf lives, pot lives, or lesser freeze-thaw capabilities as compared to conventional coatings. The analysis included in Chapter 4 concluded that solid/hazardous waste impacts associated with the proposed amendments to Rule 1113 will be insignificant. Therefore, no mitigation measures are necessary. Cumulative impacts are also considered not significant.

Hazards/Risk of Upset

The increased usage of exempt solvents or coalescing solvents as a result of implementing PAR 1113 will not result in any significant increased risk of upset. These solvents are not significantly more flammable than the solvents, such as methyl ethyl ketone (MEK), toluene, xylene, ethylene glycol butyl ether (EGBE), that they are replacing. Further, it is anticipated that resin manufacturers and coating formulators will continue the trend of using less hazardous solvents such as Texanol, Oxsol 100, propylene glycol, ethylene glycol, etc., in their compliant water-borne coatings. It is expected that future compliant AIM coatings will contain less or non-hazardous materials compared to conventional coatings, resulting a net benefit. Therefore, hazard impacts as a result of the proposed amendments will be insignificant and no mitigation measures are necessary. Cumulative impacts are also considered not significant.

Human Health

The human health impact evaluation examined the potential increased long-term (carcinogenic and chronic) and short-term (acute) human health exposure associated with the use of various replacement solvents in complaint coating formulations. In the context of long-term exposure, the analysis in Chapter 4 concluded that the general public would not be exposed to long-term health impacts due to the intermittent application of coatings in general. Furthermore, coating applicators' long-term exposure to more toxic replacement solvents (e.g., diisocyanates) are eliminated by following the coating manufacturers', Occupational Safety Health Administration's (OSHA), and American Conference of Governmental Industrial Hygienists' (ACGIH) required and recommended safety procedures. Additionally, the trend by resin manufacturers and coating

formulators to phase out the use of more toxic solvents (e.g., monomeric diisocyanates, EGBE, etc.) with less toxic solvents (e.g., polymeric diisocyanates, texanol, ethylene glycol, and propylene glycol) would further eliminate the long-term human health risks from the use of compliant coatings.

In response to comments received on the 1999 Draft SEA for PAR 1113, staff reevaluated the use of low- or zero-VOC two component IM systems containing diisocyanate compounds. The SCAQMD has refined its definition of industrial maintenance (IM) to prohibit the use of IM coatings in residential, commercial, and institutional settings. Based on actual field monitoring data, and the chemistry of the two component systems, staff has determined their use would not expose the public at large to significant adverse acute human health impacts. Test data shows the concentrations of diisocyanate compounds emitted during the application of these IM systems are below the established health protective thresholds. Thus, the previous limitation on spraying has been removed. For acute exposure to applicators, the use of the same safety procedures to reduce long-term health effects will also reduce short-term health effects associated with the use of replacement solvents.

Therefore, the general public as well as coating applicators will not be exposed to long-term or short-term significant adverse human health impacts as a result of the implementation of PAR 1113. Furthermore, no mitigation measures are necessary. Cumulative impacts are also considered not significant.

Mitigation

Table 1-1 summarizes the impacts and mitigation measures associated with the environmental impact areas that the SCAQMD analyzed for PAR 1113.

TABLE 1-2
Environmental Impacts from PAR 1113

Environmental Impact Area	Significance Determination	Mitigation Measures
Air Quality	Not Significant	None Required
Water Resources Water Demand Water Quality	Not Significant Not Significant	None Required None Required
Public Services Maintenance at Public Facilities Fire Departments	Not Significant Not Significant	None Required None Required
Transportation/Circulation	Not Significant	None Required
Solid/Hazardous Waste	Not Significant	None Required
Hazards	Not Significant	None Required
Human Health	Not Significant	None Required

Environmental Impacts Found Not To Be Significant

The Initial Study for PAR 1113 includes an environmental checklist of approximately 15 environmental topics. As discussed above, review of the proposed project at the NOP/IS stage identified three topics for further review in the Draft SEA. Comments received on the NOP/IS and a Public Workshop/CEQA Scoping Meeting held December 9, 1998, and during various Industry Working Group and other industry meetings identified three other environmental areas for further review. For the remaining nine environmental areas where the Initial Study concluded that the project would have no significant direct or indirect adverse effects on the remaining environmental topics, no comments were received on the NOP/IS or at the public meetings that changed this conclusion. Consistent with the 1997 AQMP EIR, SCAQMD staff has reaffirmed that there will be no significant impacts to the following environmental resources in the district as a result of implementing PAR 1113:

- Land Use and Planning
- Population and Housing
- Geophysical
- Biological Resources
- Energy and Mineral Resources
- Noise
- Aesthetics
- Cultural Resources
- Recreation

Other CEQA Topics

The CEQA Guidelines require a CEQA document to address the potential for irreversible environmental changes (§15126.2 (c)), growth-inducing impacts (§15126.2 (d)), and inconsistencies with regional plans (§15125 (d)). Consistent with the 1997 AQMP EIR, additional analysis of the proposed project confirms that it would not result in irreversible environmental changes or the irretrievable commitment of resources, foster economic or population growth or the construction of additional housing, or be inconsistent with regional plans.

Summary of Chapter 5 – Project Alternatives

Chapter 5 provides a discussion of alternatives to the proposed project even though such an analysis is not required since this Draft SEA finds no new significant impacts. The alternatives analyzed include measures for attaining the objectives of the proposed project and provide a means for evaluating the comparative merits of each alternative.

Table 1-2 lists the alternatives considered by the SCAQMD and how they compare to PAR 1113.

TABLE 1-3
Comparison of Adverse Environmental Impacts
of PAR 1113 to the Alternatives

Environmental Topic	Alternative A (No Project)	Alternative B (Extended Final Compliance Deadlines)	Alternative C (No Final IM//RP VOC Content Limits)	Mitigation Measures
Air Quality	Not Significant (loss of VOC emission reductions)	Not Significant (loss of VOC emission reductions in interim years)	Not Significant (loss of VOC emission reductions)	None Required
Water Resources				
Water Demand	Not Significant, less than PAR 1113	Not Significant, equivalent to PAR 1113	Not Significant, less than PAR 1113	None Required
Water Quality	Not Significant, less than PAR 1113	Not Significant, equivalent to PAR 1113	Not Significant, less than PAR 1113	None Required
Public Services				
Public Facility Maintenance	Not Significant, less than PAR 1113	Not Significant, equivalent to PAR 1113	Not Significant, less than PAR 1113	None Required
Fire Department	Not Significant, greater than PAR 1113	Not Significant, equivalent to PAR 1113	Not Significant, greater than PAR 1113	None Required
Transportation/ Circulation	Not Significant, less than PAR 1113	Not Significant, equivalent to PAR 1113	Not Significant, less than PAR 1113	None Required
Solid/Hazardous Waste	Not Significant, less than PAR 1113	Not Significant, equivalent to PAR 1113	Not significant, less than PAR 1113	None Required
Hazards	Not Significant, equivalent to PAR 1113	Not Significant, equivalent to PAR 1113	Not Significant, equivalent to PAR 1113	None Required
Human Health	Not Significant, greater than PAR 1113	Not Significant, equivalent to PAR 1113	Not Significant, greater than PAR 1113	None Required

Table 1-3 presents a matrix that lists the significant adverse impacts as well as the cumulative impacts associated with the proposed project and the project alternatives for all environmental topics analyzed. The table also ranks each impact section as to whether the proposed project or a project alternative would result in greater or lesser impacts relative to one another.

**TABLE 1-4
RANKING OF ALTERNATIVES**

Project/ Alts	Air Quality Impacts		Water Demand Impacts		Water Quality Impacts		Public Facility Maintenance Impacts		Fire Department Impacts		Transportation/ Circulation Impacts		Solid/Hazardous Waste Impacts		Hazards Impacts		Human Health	
	Proj.	Cum.	Proj.	Cum.	Proj.	Cum.	Proj.	Cum.	Proj.	Cum.	Proj.	Cum.	Proj.	Cum.	Proj.	Cum.	Proj.	Cum.
PAR 1113	✓(1)	✓	✓(3)	✓	✓(3)	✓	✓(3)	✓	✓(1)	✓	✓(3)	✓	✓(3)	✓	✓(1)	✓	✓(2)	✓
Alt. A	✓(4)	✓	✓(1)	✓	✓(1)	✓	✓(1)	✓	✓(3)	✓	✓(1)	✓	✓(1)	✓	✓(1)	✓	✓(2)	✓
Alt. B	✓(2)	✓	✓(3)	✓	✓(3)	✓	✓(3)	✓	✓(1)	✓	✓(3)	✓	✓(3)	✓	✓(1)	✓	✓(1)	✓
Alt. C	✓(3)	✓	✓(2)	✓	✓(2)	✓	✓(2)	✓	✓(2)	✓	✓(2)	✓	✓(2)	✓	✓(1)	✓	✓(2)	✓

Notes: The ranking scale is such that 1 represents the least impacts and subsequent higher number represent increasingly worse or more substantial adverse impacts.

The same two numbers in brackets for a project specific impact section means that these proposals would have the same impacts if implemented.

An X denotes either a project-specific significant adverse impact or cumulative significant adverse impact.

A ✓ denotes no significant adverse impact or no cumulative significant adverse impact.

Proj. = Project-Specific Impacts

Cum. = Cumulative Impacts

CHAPTER 2

PROJECT DESCRIPTION

Project Location

Background

Project Objective

Project Description

PROJECT LOCATION

The SCAQMD has jurisdiction over approximately 10,743 square miles (referred to hereafter as the district), consisting of the four-county South Coast Air Basin (Basin), 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 Basin includes all of Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino counties. The Riverside County portions of the SSAB and MDAB are bounded by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley. The federal nonattainment area (known as the Coachella Planning Area) is a subregion of Riverside County and the SSAB that is bounded by the San Jacinto Mountains to the west and the eastern boundary of the Coachella Valley to the east (Figure 2-1).

BACKGROUND

Architectural and industrial maintenance (AIM) coatings are used to beautify and protect homes, office buildings, factories, and their appurtenances on a variety of surfaces - metal, wood, plastic, concrete, wallboard, etc. For example, AIM coatings are applied to the interior and exterior of homes and offices, factory floors, bridges, stop signs, roofs, swimming pools, driveways, etc. AIM coatings may be applied by brush, roller or spray gun; by do-it-yourselfers (DIY), painting contractors, or maintenance personnel.

AIM and other coatings are composed of: pigments, which give the paint its color and ability to hide the underlying surface, and are generally in the form of finely ground powders; binders (resins), in which the pigment particles are dispersed and that bind the pigment to the painted surface; carriers (solvents), used to keep the paint in a liquid state during application, and to otherwise aid in the application of the paint; and specialty chemicals (additives), necessary for other coating characteristics. The carriers and some specialty chemicals evaporate, leaving behind the film-forming components of the coating. The resins used in AIM coatings include acrylics, vinyls, alkyds, cellulose, epoxies, urethanes, polyurethanes and several others. The carriers in solvent-based coatings are organic solvents such as alcohols, ketones, esters, glycols, glycol ethers, and aromatic or aliphatic hydrocarbons, and are usually VOCs. The carrier in a waterborne coating is water, although most waterborne coatings contain some VOCs, primarily glycols or texanol.

AIM coatings are usually purchased ready-to-use, although some come in two components that must be mixed prior to application. They are available in a wide range of colors, gloss, and performance characteristics. One important criterion for selecting coatings is durability. Coatings are expected to last from two to 10 years with the average expectation of five to

seven years. Failure of coatings to stand up to the elements such as sunlight, weather, and cleaning can shorten the life of the coating and require more frequent recoating.

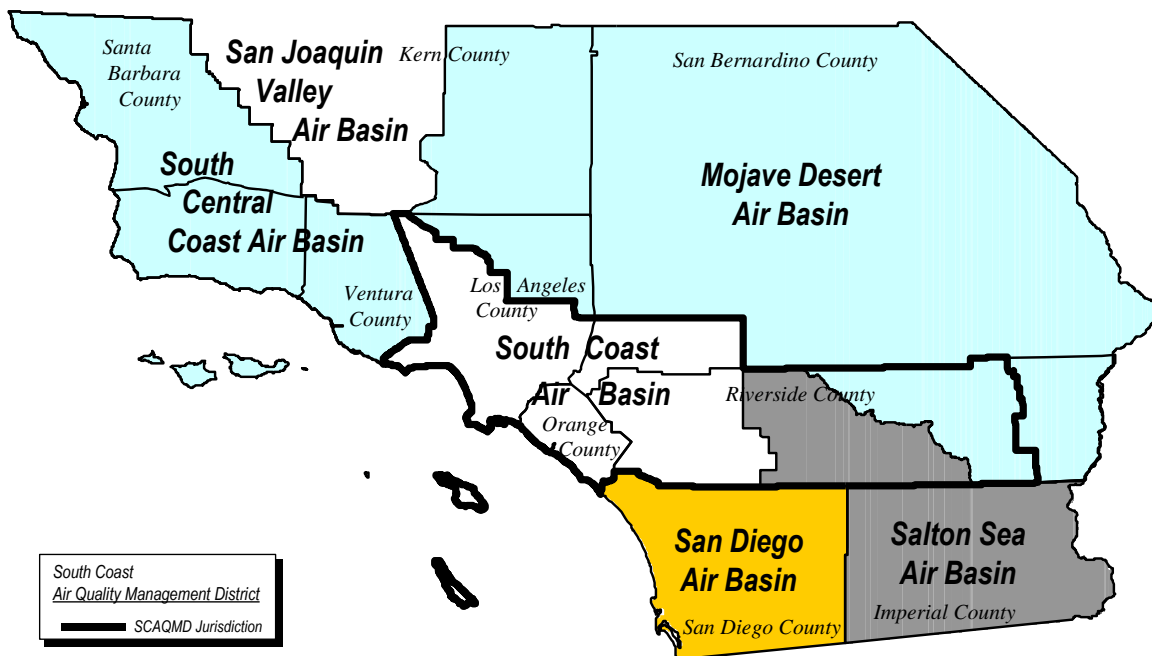


FIGURE 2-1

South Coast Air Quality Management District

A solvent may sometimes be used to thin a coating if it is too thick to spray or brush. Application problems caused by low temperature and high humidity can also be overcome by the addition of solvent to the coating. Waterborne coatings are thinned with water only, whereas solvent-based coatings can only be thinned with organic solvents. Similarly, brushes, rollers, and spray guns used with waterborne coatings are cleaned with water, while such equipment used with solvent-based coatings use organic solvents for cleanup. Generally, coatings are sold as ‘ready-to-use’ to eliminate the need for thinning in the field.

VOC emissions from architectural coating operations are regulated by SCAQMD Rule 1113. Under this rule, emissions are controlled by limiting the VOC content, measured in grams per liter, of the architectural coatings sold and applied in the district. Architectural coatings are defined by their application and use and include coatings which are applied to stationary

structures including residential and commercial buildings; billboards; curbs and roads; and mobile homes. VOCs are emitted to the atmosphere from the evaporation of organic solvents used in industrial maintenance coatings, nonflats, flats, primers/sealers/undercoaters, waterproofing wood sealers, varnishes, wood preservatives, lacquers, fire retardant coatings, etc. The existing rule and PAR 1113 apply to those persons who supply, sell, apply, solicit the application of, and manufacture such coatings.

Rule 1113 was originally adopted September 2, 1977, to regulate VOC emissions from the application of architectural coatings and has been amended several times since the date of adoption. Most rule amendments subsequent to the original rule adoption have been to exempt certain coating categories from the 250 grams per liter (g/l) exterior coating VOC limit or the 350 g/l interior coating VOC limit. In contrast to the earlier amendments, the rule was amended on February 2, 1990, to further reduce VOC emissions from certain, previously exempted coating categories. The February 2, 1990 limits were based primarily on the CARB CAPCOA Suggested Control Measure (SCM) for architectural and industrial maintenance coatings. A consortium of California air pollution control districts, the CARB, U.S. Environmental Protection Agency (EPA) Region IX, and paint manufacturers developed the provisions in the SCM. Upon adoption of the lower VOC limits, coating manufacturers sued the SCAQMD, along with other air districts, over issues that they felt were not adequately addressed in the staff report or in the CEQA document. The suit stayed portions of the February 1990 amendments, as specified in the Superior Court judgment. Subsequent rule amendments adopted November 1990, December 1990, and September 1991 were not subject to the court judgment. Further reductions in VOC limits to Rule 1113 were adopted on November 8, 1996, and resulted in a net emission reduction of 10.3 tons per day of VOC. Subsequently, industry filed three separate lawsuits, questioning the validity of the proposed future limits for the lacquer and flat coating categories. The SCAQMD has prevailed in all three cases at the state court level.

In an effort to better understand the state of coating technology for industrial maintenance coatings, non-flats, and other coatings, in Spring 1996, the SCAQMD contracted with Eastern Michigan University (EMU) to conduct an informational study. The EMU study generally found that high-VOC, low-VOC, and zero-VOC coatings were commercially available for industrial maintenance; non-flat coatings; primers, sealers, undercoaters; waterproofing sealers; and stains. The EMU study also encountered difficulty with obtaining durability information for the low- and zero-VOC coatings in these coating categories from the coating manufacturers. As a result, the EMU study suggested that side-by-side comparisons be made for various coating characteristics between low- and zero-VOC coatings compared with high-VOC coatings.

Due to the lack of durability information contained in the EMU study, the SCAQMD contracted with National Technical Systems (NTS) to conduct a comparison study that evaluated the durability and application characteristics of the following coating categories: industrial maintenance; non-flat coatings; quick dry enamels, primers, sealers and

undercoaters (PSU); quick dry PSUs; water proofing wood sealers; and stains. This study was called the Phase II Assessment Study of Architectural Coatings. The overall objective of this multi-year study was to analyze the application and durability characteristics of 94 individual coatings and 44 coating systems. The laboratory portion of this study was completed by May 1999, prior to the rule amendment. The SCAQMD thoroughly reviewed the results of the laboratory portion of the Phase II Assessment Study for Architectural Coatings with the TAC. In May 1999, the findings indicated that the zero- and low-VOC products studied showed similar and in some cases, better performance properties than the high-VOC coatings. Once the laboratory testing of the coatings was completed, an accelerated weathering study of the coating systems, as well as a real-time 24-month exposure test was initiated to analyze the effect of ambient conditions on the paint systems. The real time exposure testing began in April 2000 and continued through April 2002 at two sites with variable environmental conditions. One location was in Saugus and the other in El Segundo near the Los Angeles International Airport. At the end of the two-year outdoor test, the results showed that zero and low-VOC coatings are similar in weathering and durability characteristics and in many cases have outperformed the higher VOC based counterparts, corroborating the conclusions reached by the laboratory weathering and accelerated outdoor weathering studies.

Since the NTS study was initiated, staff continued to conduct its technology assessment of low- and zero-VOC coatings affected by the proposed amendments and has gained additional information pertaining to their performance characteristics (See Appendices D and G, and the discussion in Chapter 4 on compliant low- and zero-VOC coatings characteristics). Based on this assessment, staff believes that both the proposed compliance limits and deadlines are achievable.

In addition to the NTS study and staff's technology assessment, CARB initiated and completed a manufacturer survey to refine their architectural coatings inventory for the state of California. The 1998 CARB Architectural Coatings Survey examined sales data of architectural coatings from over 150 manufacturers. The survey focused on all coating categories of architectural coatings, including non-flats, floor coatings, primers, sealers and undercoaters and stains available in California. The data from that survey demonstrated that coatings are available in all of these categories and are being used to meet current and future Rule 1113 requirements. CARB is currently conducting another comprehensive survey to update the latest sales data, which will further evaluate certain niche coatings, including high gloss non-flat coatings. The data collection phase is almost complete, and the results are expected to be published by CARB by the end of 2002. This updated inventory will assist staff in evaluating the current emissions inventory from use of architectural coatings, as well as providing a more accurate estimate of the emission reductions that can be achieved from each of the coating categories affected by the proposed amendments.

Subsequent to the SCAQMD Board's adoption of the 1999 amendments to Rule 1113, the CARB designed a SCM, or model rule, to be considered for adoption by the local air

pollution control and air quality management districts (districts) in California. Under California law, the districts have the primary legal authority for adopting control measures for architectural coatings. The current SCM reflects advances in technology that have occurred since the last SCM was approved in 1989. The SCM specifies VOC limits for 47 coatings categories. The VOC limits for eleven of the 47 categories are lower than the predominant limits in most previous district rules. The VOC limits are generally similar to the interim VOC limits in Rule 1113, and more stringent than those in the USEPA's national architectural coatings rule. An averaging compliance option was proposed to provide additional flexibility to the regulated industry. The averaging provision allows manufacturers to average emissions of noncomplying products with emissions of overcomplying products. The averaging provision has a sunset date of January 1, 2005. The CARB Board approved the SCM with the modifications as described above at their June 22, 2000 Public Hearing. At the same meeting, the CARB Board certified a state-wide Program EIR prepared to assist the districts in the adoption of the SCM. Districts can rely on the Program EIR by incorporating it by reference in whatever CEQA documents a district chooses to prepare for its own architectural coatings rule. In the state of California, thirteen air districts (see Year 2002 Status Report in Appendix G) have amended their coatings regulations based on SCM that includes VOC limits that are as stringent as the interim limits included in Rule 1113 in nearly every category.

Rule 1113 requires a technology assessment for the future VOC limits for nonflats; primers, sealers, and undercoaters; quick-dry primers, sealers, and undercoaters; quick-dry enamels; waterproofing wood sealers; stains; floor; rust preventative; and industrial maintenance coatings as specified in paragraph (c)(2) by July 1, 2001 and July 1, 2005. In support of the technology assessment requirements, the District has completed the Phase II Assessment Study discussed above. Furthermore, in a continuing effort to compare low and high-VOC coatings in order to further substantiate that available products have characteristics similar to user expectations of higher VOC based products, the District also initiated a contract to study various coatings with KTA-Tator, Inc. The selection of the contractors, the protocol for conducting the study and the coatings evaluated, resulted from discussions and a consensus between the District and the TAC.

This most recent assessment compared high-, low- and zero-VOC formulations for four architectural coating categories: floor coatings, non-flat interior and exterior high gloss paints, interior and exterior primers, sealers and undercoaters and interior stains. The characteristics and performance of 31 coatings on various substrates were studied in the evaluation. Complete test results are shown in Appendix B1 of this report. Staff believes that overall, the results continue to substantiate current and future limits stated in the rule. Low-VOC products are currently available and, in all categories tested, work as well as and in some cases better than the higher-VOC counterparts. It is important to recognize that this study tested only a small portion of the low-VOC products currently available at retail and commercial outlets. While the test results do vary for some of the low-VOC products, all are currently being sold in the market, indicating acceptance by the consumer. The TAC and the

District are continuing to discuss the findings of the study.

Meetings with Industry Working Group

In September 1998, the SCAQMD established a working group comprised of coating manufacturers, painting contractors, representatives of trade organizations, and government representatives. Prior to the adoption of the 1999 amendments, the SCAQMD met with the working group seven times to evaluate and consider industry's concerns regarding the proposed amendments. A number of recommendations made by members of the Industry Working Group were incorporated into the proposed amendments, resulting in a modified version of PAR 1113. After the second working group meeting, which included a detailed discussion of PAR 1113, staff re-evaluated the proposal and extended the definition and compliance dates of quick-dry coating categories. The working group meetings have also served as a forum to discuss the innovative approaches presented by industry at the first working group meeting. To date, concepts for project alternatives including seasonality, reactivity, and an exemption for low volatility compounds have been discussed in detail. Other topics discussed in the working group meetings include the AQMD's emissions inventory, industry's proposal for a seasonality approach and averaging provisions, AQMP, and the AQMD's field application study. In summary, the working group meetings, as well as the public workshop and individual meetings with resin manufacturers and coating formulators, resulted in the addition of more categories, raised proposed VOC limits for some categories, extended compliance dates, and modified definitions of the 1999 amendments.

Pursuant to the workplan approved by the Board, the objective of the working group was to provide a forum for discussion of technological advancements in coatings material, market trends, and product performance related to Rule 1113 – Architectural Coatings. With regards to implementation of the workplan, staff held four meetings with the working group on October 12, 1999, November 3, 1999, January 19, 2000, and May 17, 2000. In these meetings, staff provided updates to the Phase II Assessment Study for Architectural Coatings, developed and finalized the implementation clarifications to the amended rule, and discussed the flat coatings technology assessment. Various other topics, such as the Settlement Agreement pertaining to the SIP litigation brought by several environmental organizations and the 1999 Amendments to the 1997 Air Quality Management Plan and their impact on the architectural coatings industry, were also discussed at these meetings. Lastly, staff presented the potential impacts of EPA's Draft Economic Incentive Program Guidance Document on the averaging program.

Staff held four meetings with the working group during the first six months of 2001. In these meetings, staff provided: updates on the Phase II Assessment Study for Architectural Coatings, status reports on the program, updates on the Essential Public Service Coating and NTS technology assessments, and discussed the development of the technology assessment for high gloss non-flats, specialty primers, floor coatings, and interior stains. Various other

topics, such as technical conference and reactivity issues were also discussed.

Since mid-2001, many meetings have been held to discuss various aspects of the rule. Teleconferences with CARB were held on numerous occasions discussing Suggested Control Measures (SCM) for architectural coatings and future averaging compliance options as allowed in Rule 1113 and proposed in the SCM. A Working Group meeting was held on November 15, 2001 followed by a Technical Advisory Meeting (TAC) to discuss rule implementation and to address concerns with future limits. On December 5, 2001 the Rule 1113 TAC held a teleconference reviewing the ongoing technological assessments and other issues relative to Rule 1113. A follow-up teleconference was held on January 31, 2002.

On February 28, 2002 the District held a joint Rule 1113 Working Group and TAC Meeting to review the studies that were nearing completion and to address topics such as compliance with emission limits and the averaging compliance options allowed under section (c)(6) of Rule 1113. Members of the TAC were invited to participate in site visits to evaluate test panels that have been subject to outdoor weather exposure relative to a contract with the NTS. Discussions with the TAC regarding the results contained in the NTS report are continuing. Another teleconference with the TAC was held on May 17, 2002 to continue dialogue on the completed technological assessments and discuss future technological assessments through coordinated efforts of the AQMD and industry.

PROJECT OBJECTIVES

The overriding objective of the current proposed project is to readopt the 1999 amendments to Rule 1113 as modified, which were vacated by the Appellate Court in June 2002. Readopting the 1999 amendments to Rule 1113 as modified would then fulfill the original objectives associated with the 1999 amendments. These objectives include: implement, in part, control measure CTS-07 from the 1997 AQMP; achieving a 50 percent reduction in VOC emissions from AIM coatings called for in the 1997 AQMP control measure; add more coating categories; provide an extended compliance date for small businesses; and modify and improve existing definitions.

DESCRIPTION OF AFFECTED ARCHITECTURAL COATING CATEGORIES

~~Bituminous Roof Coatings~~

~~Bituminous roof coatings are coatings formulated and recommended for roofing that incorporates bituminous coating materials.~~

~~Chemical Storage Tank Coatings~~

~~Chemical storage tank coatings are coatings used as interior tank linings for the storage of oxygenated solvents such as MEK, Methanol and MTBE, oxygenated solvent mixtures with~~

~~greater than ten percent by volume of MEK, Methanol and MTBE, and acid based products with a pH of less than or equal to three.~~

~~Essential Public Service Coating~~

~~Essential public service coating is a protective (functional) coating applied to components of power, municipal wastewater, water, bridges and other roadways, including transmission or distribution systems during repair and maintenance procedures.~~

Bituminous Roof Primers

Bituminous roof primers are formulated for or applied to roofing that incorporate bituminous coating materials.

Floor Coatings

Floor coating is a generic term for a variety of high performance coatings used in areas with abrasion as a result of foot traffic or vehicular traffic. Typical users include a variety of commercial and industrial users, with some limited residential applications. Typically, the coating system includes a primer and topcoat or a two-component single coat coating.

Although formulated using a number of resin systems, the highest performing floor coatings are based on epoxy and polyurethane systems. The newer polyurethane technology is based on both one-part and two-part coatings, with numerous products being offered as completely solventless systems.

Industrial Maintenance (IM) Coatings

The IM coating category is a generic term for a variety of high performance coatings, including primers, undercoats, and topcoats, used in areas with harsh environmental conditions such as extreme weather, corrosion, chemical, abrasion, and heat. Typical users include oil and gas production - onshore and offshore, refineries, petrochemical production and processing, marine, pulp and paper mills, bridges, manufacturing facilities, and water and waste treatment facilities. The coating system may include a primer and topcoat or a primer, midcoat, and topcoat or high-build single coat coatings.

In addition to high performance, alkyd-based enamels, inorganic zinc, vinyl, epoxy, polyurethane, and silicone-based resins are used to enhance the protection characteristics of these coatings, while achieving lower VOC content. The newer polyurethane technology is based on both one-part and two-part coatings, with some using reactive diluent technology where part of the solvent becomes a permanent part of the coating.

High Temperature IM

High temperature IM coatings are used to protect substrates, typically metals, that are

exposed continuously or intermittently to temperatures above 400 degrees Fahrenheit. Typical uses include coatings for furnaces, stacks, power plants, refineries, and mufflers, as well as other substrates exposed to high temperatures. These coatings are formulated with a variety of resins such as aluminum rich, inorganic zinc rich, silicone, and epoxy-based formulations. Both solvent-borne and water-borne, polysiloxane-based high-temperature coatings are also commercially available.

Non-Flats

Nonflat coatings are interior and exterior coatings that have a gloss of greater than or equal to 15 on an 85 degree meter and greater than or equal to five on a 60 degree meter. Nonflat coatings represent the second largest category of architectural coatings and make up approximately 15 percent to 20 percent of total coatings used for residential development. This category is usually divided into three distinct subcategories called low-gloss (also known as satin or eggshell), medium-gloss (semi-gloss), and high-gloss. Nonflat coatings are most commonly used for interior and exterior wood trim, bathroom, kitchens, and other high traffic areas where repeated cleaning is necessary. However, some consumers also use the low-gloss nonflats for interior walls (drywall). Approximately 43 percent of all nonflats sold are for interior use only, 16 percent for exterior use only, and 41 percent for both interior or exterior use.

Quick-Dry Enamels

Quick-dry enamel is a non-flat coating category typically used where the substrate to be coated needs to dry quickly to minimize dust contamination, such as new home construction, or be returned to service quickly, such as a restaurant. The coated substrate should dry, as measured by ASTM 1640, to touch within two hours, should be tack free within four hours, and dry hard within eight hours for the coating to be listed as quick-dry. In typical residential application, quick-dry enamels are used for interior and exterior wood trim around windows, door jambs, doors, and possibly kitchen cabinetry. For older homes with wood siding, the quick-dry enamels may be used for the entire exterior surface. This category does not include enamels used in industrial environments.

Primer, Sealer and Undercoater (PSU)

The primer, sealer, and undercoater category is a generic term used to describe coatings, typically the initial coat, used to provide a smooth surface for subsequent coats or to provide a shield between the substrate and the subsequent coat or to provide adhesion for the topcoat. This category utilizes the gamut of available coating technologies in its formulations; alkyds, modified alkyds, oleoresin, epoxies, specialty resins, and emulsions are just a few of the formulations used.

Quick-Dry PSU

The quick-dry primer, sealer, and undercoater category is a generic term used to describe coatings, typically the initial coat, used to provide a smooth surface for subsequent coats or to provide a shield between the substrate and the subsequent coat or to provide adhesion for the topcoat. This quick-dry category is used for areas that also require a quick turnaround time, as described in the quick-dry enamel category section of this report. By definition, the dry to touch time needs to be less than 30 minutes, and the recoat time needs to be less than two hours, both tested by ASTM 1640.

This category utilizes the gamut of available coating technologies in its formulations; alkyds, modified alkyds, oleoresin, epoxies, specialty resins, and emulsions are just a few of the formulations used.

Recycled Coatings

Recycled coatings are coatings collected through Household Hazardous Waste Collection Programs or other waste minimization and resource recovery programs. Recycled coatings shall be formulated such that not less than 50 percent of the total weight consists of secondary post-consumer waste paint, with not less than ten percent of the total weight consisting of post-consumer waste paint.

Roof Coatings

Roof coatings are non-bituminous coatings formulated for application to exterior roofs and for the primary purpose of preventing penetration of the substrate by water, or reflecting heat and ultraviolet radiation. Metallic pigmented roof coatings which qualify as metallic pigmented coatings shall not be considered to be in this category, but shall be considered to be in the metallic pigmented coatings category.

Rust Preventive Coatings

Rust Preventative Coatings are coatings formulated and recommended for use in preventing the corrosion of metal surfaces in residential and commercial situations. This category includes the primers and topcoats for metal substrates. A specific category has been created in response to comments from industry, indicating a need for rust prevention and corrosion protection for metal substrates. Typical uses include handrails, fencing, metal doors, and gutters. These coatings rely on a variety of resin technologies, with recent development of acrylic emulsion formulations.

Specialty Primers

Specialty primers is a coating formulated and recommended for application to a substrate to seal fire, smoke or water damage; or to condition excessively chalky surfaces. An

excessively chalky surface is one that is defined as having chalk rating of four or less as determined by ASTM D-4214 – Photographic Reference Standard No. 1 or the Federation of Societies for Coatings Technology “Pictorial Standards for Coatings Defects.”

Stains

Stains can be either semi-transparent (interior and exterior) or opaque (semi-solid), and are generally used on wood. These type of coatings are especially used extensively in cabins and homes with soft wood exterior siding, as well as deck coating. They protect the wood from UV exposure, moisture, and minimize tannin bleed through.

Water Proofing Wood Sealers

Waterproofing wood sealers are used to protect wood, and other porous surfaces to seal against moisture damage. On wood, use of waterproofing sealers can prevent splitting, staining, and warping, as well as maintain the wood's true color and grain. These coatings rely on a variety of recently developed resin technologies, such as acrylic emulsion formulations and acetone-based formulations.

Zinc-Rich Industrial Maintenance Primers

Zinc-Rich Industrial Maintenance Primers are formulated to contain a minimum of 65 percent metallic zinc powder (zinc dust) by weight of total solids for application to metal substrates.

PROJECT DESCRIPTION

The current proposed amendments would implement Phase II of Control Measure #97CTS07 – Further Reductions from Architectural Coatings – Rule 1113. The proposed amendments to Rule 1113 include the following components, listed in the order they appear in the rule:

- ~~1. Add a definition of “Bituminous Roof Coatings” [Paragraph (b)(6)]~~

~~The definition of “Bituminous Roof Coatings” has been added in response to comments provided by the Roof Coatings Manufacturers Association.~~

- ~~2. Add a definition of “Chemical Storage Tank Coatings” [Paragraph (b)(8)]~~

~~The definition of “Chemical Storage Tank Coatings” has been added to the existing rule.~~

- ~~3. Add a definition of “Essential Public Service Coating” [Paragraph (b)(15)]~~

~~The definition of “Essential Public Service Coating” has been added in response to comments provided by the Metropolitan Water District and other specific public service providers.~~

Add a definition of “Bituminous Roof Primers” [Paragraph (b)(6)]

4. Add a definition for “Floor Coatings” [Paragraphs (b)(20)]:

The definition of “Floor Coatings” has been added to the existing rule.

5. Add a definition for “High-Temperature Industrial Maintenance coatings” [Paragraphs (b)(24)]:

The definition of “High-Temperature Industrial Maintenance coatings” has been added to the existing rule.

6. Delete the definition of “Industrial Maintenance Primers and Topcoats” and add a definition for “Industrial Maintenance Coatings” as originally adopted in February 1990 amendments, but deleted in November 1996 amendments to comply with the Superior Court judgement [Old Paragraph (b)(19), Paragraph (b)(25)]:

The definition of "Industrial Maintenance Primers and Topcoats" based on the January 1990 rule is deleted and the definition of “Industrial Maintenance coatings” based on the February 1990 rule is added.

7. Add a definition for “Nonflat Coatings” [Paragraph (b)(33)]:

A definition of "Nonflat coatings" is added to create a specialty category. The definition is the same as recently adopted by USEPA in the national AIM rule.

8. Add a definition for “Recycled Flats and Nonflats” [Paragraph (b)(39)]:

A definition of " Recycled Flats and Nonflats" is added to create a specialty category, based on comments forwarded by Orange County Integrated Waste Management and other public service agencies.

9. Add a definition for “Roof Coatings” [Paragraph (b)(40)]:

A definition of " Roof coatings" is added to clarify the difference between bituminous and non- bituminous roof coatings.

10. Add the definition of “Rust preventative coatings” [Paragraph (b)(41)]:

A definition of "Rust preventative coatings" is added to create a specialty category.

11. Add the definition of “Specialty Primers” [Paragraph (b)(46)]:

A definition of "Specialty primers " is added to create a specialty primer category.

12. Revise the definition of “Waterproofing Sealers to Waterproofing Wood Sealers” [Paragraph (b)(55)]:

The definition of "Waterproofing Sealers" is revised to "Waterproofing Wood Sealers" based on comments received from manufacturers of such products. This definition is specifically for waterproofing sealers used on wood substrates, such as decks and siding.

13. Add a definition for "Waterproofing Concrete/Masonry Sealers" [Paragraph (b)(56)]:

The definition of "Waterproofing Concrete/Masonry Sealers" is revised based on comments received from manufacturers of such products. This definition is specifically for waterproofing sealers used on concrete and masonry.

Add a definition of "Zinc-Rich IM Primers" [Paragraph (b)(59)]

14. Reduce the VOC content limit for IM coatings; non-flats; primers, sealers, and undercoaters; quick-dry enamels; quick-dry primers, sealers, and undercoaters; ~~bituminous roof coatings, roof coatings; essential public service coatings, bituminous roof primers,~~ floor coatings; recycled flats and nonflats, rust preventative coatings; stains; *zinc-rich IM primers*, and waterproofing wood sealers (see Table 2-1). Interim limits as well as final compliance limits are proposed. In addition, it is proposed that small businesses have an extended compliance date;

15. Revise the "Averaging Provision" methodology [Paragraph (c)(6)]:

The November 8, 1996 amendments included an "Averaging Provision" for flat coatings to provide an optional method of compliance for manufacturers of this coating product. The currently proposed amendments will expand the averaging provision to include nonflat coatings; floor coatings; rust preventative; primers, sealers, and undercoaters; quick-dry PSUs, quick-dry enamels, and IM coatings. Effective January 1, 2001, this provision will allow manufacturers to average, on a sales-weighted basis, the VOC contents of their coatings and allow them to manufacture and distribute coatings that have a VOC content higher than the proposed standards. Market-based approaches have been requested by industry as an option to compliance with the standards. The overall averaging program parallels the CARB's "Alternative Control Plan Regulation for Consumer Products."

The Averaging Provision is a voluntary, flexible approach that will utilize a "bubble" concept. Under this program, manufacturers who voluntarily choose to comply with the rule under the averaging provision would select the coatings and develop a detailed plan that would demonstrate that the total VOC emissions under the plan would not exceed the emissions that would have resulted had the products been formulated to meet the proposed VOC standards. Under the plan, once approved, the manufacturers could sell products that exceed the VOC standards specified in the rule for these coatings, provided that the emissions from these high-VOC products will be

- sufficiently offset by the emissions from the products formulated to achieve VOC limits below the proposed standards.
16. Modify the requirements in paragraph (c)(2) to incorporate coatings manufactured under the Averaging Provisions specified in paragraph (c)(6).
 17. Add ceiling limits applicable to averaging provision to reflect the original intent of the proposal.
 18. Add a Technology Assessment requirement for nonflats, industrial maintenance coatings, floor coatings, waterproofing wood sealers, primers, sealers, and undercoaters, quick-dry primers, sealers, and undercoaters, quick-dry enamels, rust preventative coatings, stains and lacquer coatings. [subdivision (f)]:

The SCAQMD commits to assessing the product availability of specific future VOC limits for nonflats, primers, sealers, and undercoaters, quick-dry primers, sealers, and undercoaters, quick-dry enamels, floor coatings, rust preventative coatings, industrial maintenance coatings, and waterproofing wood sealers prior to revised limit implementation dates. Staff commits to assessing the scientific basis for a reactivity-based ozone control strategy, in conjunction with industry.

19. Clarify sell-through provision applicable to coatings participating in an averaging provision.

For a complete description of PAR 1113, the reader is referred to Appendix A of this Draft SEA.

PROJECTED EMISSIONS REDUCTIONS

The November 1996 amendments to Rule 1113, which lowered the VOC content limits from lacquers, flats (interior and exterior), traffic coatings, and multi-color coatings, are projected to reduce VOC emissions by 10.3 tons per day by 2010. Implementation of PAR 1113 is currently estimated to result in approximately 21.8 tons per day of VOC emission reductions or approximately a 36 percent emission reduction compared to current emission levels for the Annual Average Inventory for this emission source category. The table below summarizes the current proposed changes in VOC limits and the associated projected emission reductions.

TABLE 2-1

PAR 1113 Proposed Emission Limits and Projected
Emission Reductions for Affected Coating Categories

Coating Category	Current Limit ¹ (g/l)	Proposed Limit ¹ and Compliance Dates		Emission Reductions by 2010 (tons/day)
		g/l	Date	
Bituminous Roof Coatings ²	300	250	01/01/03	n/a
Chemical Storage Tank Coating ²	420	100	07/01/06	n/a
Essential Public Service Coating ²	420	340	01/01/03	n/a
		100	07/01/06	n/a
Floor Coatings ²	420	100	01/01/03	0.31
		50	07/01/06	0.16
Industrial Maintenance (IM) Coatings	420	250	01/01/03	2.90
		100	07/01/06	2.63
High Temperature IM Coatings ²	No Limit	550	01/01/03	0.0
		420	07/01/06	not quantified
Non-Flats ²	250	150	01/01/03	0.86
		50	07/01/06	6.55
Quick-Dry Enamel	400	250	01/01/03	1.08
		50	07/01/06	0.66
Primers, Sealers, Undercoaters	350	200	01/01/03	1.48
		100	07/01/06	0.73

¹ Grams of VOC per liter of coating, less water and less exempt compounds.

² New category.

TABLE 2-1 (CONCLUDED)
 PAR 1113 Proposed Emission Limits and Projected
 Emission Reductions for Affected Coating Categories

Coating Category	Current Limit ¹ (g/l)	Proposed Limit ¹ and Compliance Dates		Emission Reductions by 2010 (tons/day)
		g/l	Date	
Quick-Dry Primers, Sealers, & Undercoaters ²	350 ³	200	01/01/03	1.53
		100	07/01/06	0.34
Recycled Flat and Nonflat ²	250	100	07/01/06	not quantified
Rust Preventative Coatings ²	400	100	07/01/06	0.92
Specialty Primers	350	100	07/01/06	not quantified
Stains	350	250	01/01/03	1.13
Water-proofing Wood Sealers	400	250	01/01/03	0.52
Total				21.8

¹ Grams of VOC per liter of coating, less water and less exempt compounds.

² New category.

³ Currently exempt if manufacturers reports sales data.

