

***8-Hour Reasonably Available Control
Technology – State Implementation Plan Analysis
(RACT SIP Analysis)***

July 2015

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Abbreviations and Acronyms

ACT.....	Alternative Control Technology
AQMA	Air Quality Management Area
AVAQMD.....	Antelope Valley Air Quality Management District
BACT	Best Available Control Technology
CARB.....	California Air Resources Board
CTG.....	Control Techniques Guideline
CFR.....	Code of Federal Regulations
FCAA.....	Federal Clean Air Act
FND.....	Federal Negative Declaration
NAAQS.....	National Ambient Air Quality Standard
NO _x	Oxides of Nitrogen
O ₃	Ozone
POTW	Publicly Owned Treatment Works
RACT	Reasonably Available Control Technology
SCAQMD	South Coast Air Quality Management District
SIP.....	State Implementation Plan
USEPA.....	United States Environmental Protection Agency
VOC	Volatile Organic Compounds

Executive Summary

The Federal Clean Air Act (FCAA) requires newly designated ozone non-attainment areas to implement Reasonably Available Control Technology (RACT) on certain sources, including all major sources of ozone precursors. For the purposes of the FCAA, the District has been designated non-attainment for ozone and classified as Severe-15 for the 1997 and 2008 ozone standard (May 8, 2012, 77 FR 26950 and June 6, 2013 78 FR 34178). The Antelope Valley Air Quality Management District (AVAQMD) has evaluated its adopted rules and all of its major sources of ozone precursors to ensure that current rules satisfy RACT. The evaluation process produced several rules that must be updated to current federal RACT standards.

This document presents the evaluation method, the evaluation results, and the AVAQMD's commitment to adopt the required RACT rule updates.

The original *2006 RACT SIP Analysis* (for the 1997 8-hour ozone standard), together with the supplemental March 13, 2014 *RACT SIP Analysis* and this document, represent a current and complete RACT SIP Analysis document to satisfy the District's RACT obligation for the 1997 and 2008 8-hour ozone standards.

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CHAPTER 1 – Introduction and Background

Purpose

Regulatory History

Federal Legal Requirements

Pollutant Descriptions

Setting

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INTRODUCTION

Purpose

The FCAA requires that ozone non-attainment areas implement RACT for sources that are subject to Control Techniques Guidelines (CTGs) and for major sources of ozone precursors. This document: (1) reviews all available instances of RACT for applicability to the AVAQMD; (2) reviews all AVAQMD major sources for RACT applicability; and (3) identifies any actions the AVAQMD must take to address applicable RACT requirements. This document satisfies 42 U.S.C. §§7511a (FCAA §182) regarding RACT requirements for the 8-hour ozone National Ambient Air Quality Standard (NAAQS).

BACKGROUND

Regulatory History

The United States Environmental Protection Agency (USEPA) designated the desert portion of Los Angeles County as non-attainment of the 8-hour ozone NAAQS as part of the Southeast Desert Modified Air Quality Management Area (AQMA) on April 15, 2004 (40 CFR 81). This large “maintenance area” was classified moderate based on a 128 ppb ozone design value calculated from 2000 through 2002 8-hour ozone values within the Los Angeles County portion of the area.

The desert portion of Los Angeles County was established as its own air district as of July 1, 1997, the Antelope Valley Air Pollution Control District (AVAPCD), pursuant to former H&SC §40106 (Statutes 1996 ch 542, Repealed Statutes 2001 ch. 163). This air district was replaced by the AVAQMD on January 1, 2002, pursuant to H&SC §41300 et seq (Statutes 2001 ch. 163). As a successor district to SCAQMD, the AVAQMD assumes the authorities and duties of the SCAQMD for the Antelope Valley (H&SC §41302).

Ozone plans have been adopted by the AVAQMD to address Federal ozone planning requirements, including RACT applicability. This document updates the Federal RACT portion of all previously submitted plans.

Federal Legal Requirements

Sections 182(b)(2) and 182(f) of the FCAA require that ozone non-attainment areas implement RACT for sources that are subject to CTGs and for major sources of ozone precursors (42 U.S.C. §7511a). Ozone non-attainment areas classified moderate and higher must submit a RACT SIP (State Implementation Plan) analysis by July 20, 2014 (40 CFR 51.912).

Pollutant Description and Health Effects

Ozone (O₃) - A colorless gas that is a highly reactive form of oxygen. It has a strong odor when highly concentrated. Ozone can occur naturally but can also be formed from other compounds through photochemistry, a complex system of reactions with hydrocarbons and oxides of

nitrogen in the presence of sunlight (ultraviolet). The Mojave Desert Air Basin experiences ozone concentrations in excess of the State and Federal ambient air quality standards.

Ozone can cause respiratory irritation and discomfort, making breathing more difficult during exercise. Ozone can reduce the respiratory system's ability to remove inhaled particles, increase pulse rate, decrease blood pressure and reduce the body's ability to fight infection. After six hours of exposure a healthy person can have significant reduction of lung function. It is an irritant of the skin, eyes, upper respiratory system, and mucous membranes, although symptoms disappear after exposure. It may also be a carcinogen.

Setting

The Antelope Valley is the desert portion of Los Angeles County. The Antelope Valley covers 1300 square miles and included 219,628 persons as of the 1990 census (approximately 400,000 in 2002), centered within the cities of Lancaster and Palmdale. The region is characterized by a wide, arid valley with little precipitation.

The primary roadways in the Antelope Valley are State Route 14 and State Route 18. Both of these arterials carry a substantial amount of daily commute traffic from the region into the Greater Los Angeles Basin.

The Antelope Valley is primarily a bedroom community, but does have significant aerospace development and manufacturing. Air Force Plant 42 and a portion of Edwards Air Force Base are located within the District (Boeing, Lockheed Martin and Northrop Grumman all lease facilities on the base from the Air Force).

CHAPTER 2 – RACT SIP Evaluation

Process

CTG Sources

Major Non-CTG Sources

Future Years

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Process

The AVAQMD reviewed a USEPA-provided list of source categories and applicable CTGs that collectively define RACT. The AVAQMD reviewed this list for local applicability, and the results are presented in Appendix A.

CTG Sources

Those categories of sources covered by a published CTG are referred to as CTG sources. For each CTG source category, the AVAQMD has identified whether or not a current source is sited within its jurisdiction, or whether it is likely a source may be sited within its jurisdiction. In most cases, where the AVAQMD has no source that meets the category, the AVAQMD will file a Federal Negative Declaration (FND) for that category. For some categories the AVAQMD has an adopted rule that applies to the category that has been deemed to meet the applicable RACT for that category. In several cases, the AVAQMD has a rule which has been evaluated and needs to be updated for RACT, and the AVAQMD is committing to amending the rule to current RACT for those source categories accordingly. Chapter 3 details AVAQMD actions identified by this evaluation process.

Major Non-CTG Sources

RACT is also required for all major sources of ozone precursors within the AVAQMD. For severe non-attainment areas a major source is defined as any stationary source or group of sources that emits, or has the potential to emit, at least 25 tons per year of VOCs or NO_x (FCAA 182(d) and (f)). Table 1 below presents a list of all facilities that have submitted applications for Title V Federal Operating Permits within the AVAQMD, whether the facility is a major source of ozone precursors, and the current RACT applicable to those sources. This list includes all major sources in the AVAQMD. Chapter 3 details AVAQMD actions identified by this evaluation process.

Table 1 - Major Source Table

Source	FOP	Description	Applicable RACT
Northrop-Grumman*	102301816	Aerospace research, development and manufacturing	1. Aerospace (CTG and MACT) (EPA-453/R-97-004, December 1997). 2. Aerospace MACT (59 FR 29216, June 1994).
Lockheed Martin Skunk Works*	9701754	Aerospace research, development and manufacturing	1. Aerospace (CTG and MACT) (EPA-453/R-97-004, December 1997). 2. Aerospace MACT (59 FR 29216, June 1994).
Antelope Valley Public Landfill ⁺	121002106	Municipal solid waste disposal	No applicable CTG. Not a major source of ozone precursors
Lancaster Landfill & Recycling Center ^{+#}	122802129	Municipal solid waste disposal	No applicable CTG. Not a major source of ozone precursors
Wm. Bolthouse Farms	180403054	Agriculture	No applicable CTG. 1. ACT Document – NO _x Emissions from Stationary Internal Combustion Engines (EPA-453/R-93-032, 07/93).

*Potential to emit exceeds major source threshold.

⁺Required to obtain a Title V permit under 40 CFR Part 60 subpart WWW §60.752(b).

[#]The 2012 CARB inventory for NO_x for this facility includes emissions from mobile sources.

CHAPTER 3 – AVAQMD RACT Actions

Federal Negative Declarations
Required RACT Rule Actions

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Federal Negative Declarations

Current AVAQMD review has identified many source categories that do not have corresponding sources (major or minor) within the jurisdiction of the AVAQMD. The District reviewed its permit files and the emission inventory for its Federal Clean Air Plan, and conducted SIC Code searches, the internet, yellow pages, and District inspectors and engineer's knowledge, and has determined that there are no stationary sources or emitting facilities that meet the applicability threshold for the following CTG categories. The District also does not anticipate sources that will exceed the CTG applicability threshold in the near future. For these source categories the AVAQMD is filing FNDs. In some cases the FND is an update of an earlier FND.¹ FND actions are summarized in Table 2 below.

¹ The District may have an existing SIP rule for a particular source category subject to these FNDs. Filing a FND does not mean that the District will not subsequently amend its rule and update the SIP at a future time.

Table 2 - Federal Negative Declarations

Source Category	Control Techniques Guideline Covering Action
Federal Negative Declarations	
Fiberglass Boat Manufacturing Materials	1. Control Techniques Guidelines for Fiberglass Boat Manufacturing Materials (EPA-453/R-08-004, 09/2008).
Metal Furniture Coating	1. Control Techniques Guidelines for Metal Furniture Coatings (EPA-453/R-07-005, 09/2007).
Refinery Vacuum Producing Systems, Wastewater Separators, and Process Unit Turnarounds	1. Control of Refinery Vacuum Producing Systems, Wastewater Separators, and Process Unit Turnarounds (EPA-450/2-77-025).
Coils	1. Control of Volatile Organic Emissions from Existing Stationary Sources - Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks (EPA-450/2-77-008, 05/1977).
Insulation of Magnet Wire	1. Control of Volatile Organic Emissions from Existing Stationary Sources - Volume IV: Surface Coating of Insulation of Magnet Wire (EPA-450/2-77-033, 12/1977).
Large Appliance Coatings	1. Control of Volatile Organic Emissions from Existing Stationary Sources - Volume V: Surface Coating of Insulation of Large Appliances (EPA-450/2-77-034, 12/1977).
	2. Control Techniques Guidelines for Large Appliance Coatings (EPA-453/R-07-004, 09/2007).
Bulk Gasoline Plants	1. Control of Volatile Organic Emissions from Bulk Gasoline Plants (EPA-450/2-77-035, 12/1977).
Petroleum Refinery Equipment	1. Control of Volatile Organic Compound Leaks from Petroleum Refinery Equipment (EPA-450/2-78-036, 06/1978).
Synthesized Pharmaceutical Products	1. Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products (EPA-450/2-78-029, 12/1978).
Pneumatic Rubber Tires	1. Control of Volatile Organic Emissions from Manufacture of Pneumatic Rubber Tires (EPA-450/2-78-030, 12/1978).
Manufacture of High-Density Polyethylene, Polypropylene, and Polystyrene Resins	1. Control of Volatile Organic Compound Emissions from Manufacture of High-Density Polyethylene, Polypropylene, and Polystyrene Resins (EPA-450/3-83-008, 11/1983).
Natural Gas/Gasoline Processing Plants	1. Control of Volatile Organic Compound Leaks from Natural Gas/Gasoline Processing Plants (EPA-450/3-83-007, 12/1983).
Synthetic Organic Chemical Polymer and Resin Manufacturing Equipment	1. Control of Volatile Organic Compound Leaks from Synthetic Organic Chemical Polymer and Resin Manufacturing Equipment (EPA-450/3-83-006, 03/1984).
Synthetic Organic Chemical Manufacturing Industry	1. Control of Volatile Organic Compound Emissions from Air Oxidation Processes in Synthetic Organic Chemical Manufacturing Industry (EPA-450/3-84-015, 12/1984).
	2. Control of Volatile Organic Compound Emissions from Reactor Processes and Distillation Operations in Synthetic Organic Chemical Manufacturing Industry (EPA-450/4-91-031, 08/1993).
Wood Furniture Manufacturing Coating Operations	1. Control of Volatile Organic Compound Emissions from Wood Furniture Manufacturing Operations (EPA-453/R-96-007, 04/1996).
Shipbuilding and Ship Repair Surface Coating Operations	1. Control Techniques Guidelines for Shipbuilding and Ship Repair Operations (Surface Coating) (61 FR 44050 8/27/96, 04/1994).
Flat Wood Paneling	1. Control Techniques Guidelines for Flat Wood Paneling Coatings (EPA-453/R-06-004, 09/2006).
Large Petroleum Dry Cleaners	1. Control of Volatile Organic Compound Emissions from Large Petroleum Dry Cleaners (EPA-450/3-82-009, 09/1982).
Fixed-Roof Tanks	1. Control of Volatile Organic Emissions from Storage of Petroleum Liquids in Fixed-Roof Tanks (EPA-450/2-77-036, 12/1977).
Floating-Roof Tanks	1. Control of Volatile Organic Emissions From Petroleum Liquid Storage in External Floating Roof Tanks (EPA-450/2-78-047, 12/1978).

Required RACT Actions – 2006 RACT SIP Analysis

The AVAQMD identified three required RACT rule actions in the *2006 RACT SIP Analysis*. These actions are detailed below.

Aerospace Coating

The AVAQMD has aerospace coating operations within its jurisdiction and a current rule that applies to this source category, Rule 1124 – *Aerospace Assembly and Component Manufacturing Operations*. Rule 1124 was most recently amended on 08/20/2013. No further action is required at this time if USEPA determines that this amendment fulfills current RACT.

Stationary Internal Combustion Engines

The AVAQMD has stationary internal combustion engines at major sources within its jurisdiction, and had two rules that applied to this source category, Rule 1110 - *Emissions from Stationary Internal Combustion Engines (Demonstration)* and Rule 1110.2 - *Emissions from Stationary, Non-road & Portable Internal Combustion Engines*.

- Rule 1110 was rescinded by the AVAQMD on 01/15/2013. Rule 1110 was adopted by South Coast Air Quality Management District (SCAQMD) on 11/06/1981 to set up a demonstration program to collect emissions data for SCAQMD Rule 1110.1 - *Emissions from Stationary Internal Combustion Engines*. The SCAQMD demonstration program was completed on or about November 1991. This was prior to the formation of the Antelope Valley Air Pollution Control District on 07/01/1997. Rule 1110 was subsequently rescinded by the SCAQMD on 11/14/1997. Due to the provisions of the implementing statute and the subsequent statutory creation of the Antelope Valley Air Quality Management District the rule remained in the AVAQMD rule book though it was inapplicable due to the termination of the program and the fact that none of the program engines were located within what is now the jurisdiction of the AVAQMD. USEPA is to update the rescission action in the SIP.
- The AVAQMD will either update Rule 1110.2, or adopt a separate agricultural internal combustion engine rule to address items including, but not limited to, those identified in 69 FR 21483, 04/21/2004.

Additional Required RACT Actions

USEPA requested further clarification for several rules to determine if they still represent RACT, or should be submitted for SIP approval if needed for RACT.² The AVAQMD provided this analysis to USEPA on 03/13/2014 in the *2014 Supplement to the 2006 AVAQMD RACT SIP Analysis*.³ The original *2006 RACT SIP Analysis* (for the 1997 8-hour ozone standard), together with the supplemental March 13, 2014 RACT SIP Analysis and this document, represents a current and complete RACT SIP Analysis document to satisfy the District's RACT obligation for the 1997 and 2008 8-hour ozone standards. Those items identified in the 2014 Supplement, and additional rule analysis which address newer CTGs, are as follows. A current and complete

² USEPA letter September 11, 2006, Re: 8-hour Ozone Reasonably Available Control Technology – State Implementation Plan (RACT SIP) Analysis, dated August 2006, Table 1 and Table 2.

³ 8-hour Ozone Reasonably Available Control Technology RACT State Implementation Plan (SIP) Analysis – Supplemental Analysis, March 13, 2014.

analysis for each rule will be completed at the time of the specific rule amendment. Those reasons identified below as a basis for updating the rule to federal RACT are not necessarily inclusive of all rule changes that will be made at the time of amendment.

Rule 462 – Organic Liquid Loading

Rule 462 to be amended to address deficiencies in the Limited Approval/Limited Disapproval in the NPRM issued 62 FR 26560, 05/14/1997.

Rule 1107 – Coating of Metal Parts and Products

Rule 1107 is consistent with CTG control recommendations, but several VOC limits in SCAQMD Rule 1107 are lower and have been identified as RACT.

Rule 1110.2 – Emissions from Gaseous and Liquid Fueled Internal Combustion Engines

Rule 1110.2 must be updated to remove the agricultural exemption and address other USEPA comments identified in the LA/LD (69 FR 21482, 04/21/2004).

Rule 1145 – Plastic, Rubber and Glass Coatings

Rule 1145 to be amended to incorporate additional RACT provisions identified in SCAQMD Rule 1145.

Rule 1146 - Emissions Of Oxides Of Nitrogen From Industrial, Institutional And Commercial Boilers, Steam Generators, And Process Heaters

Will survey affected units for applicability and determine if it is feasible to update limits as RACT.

Rule 1151 – Motor Vehicle and Mobile Equipment Coating Operations

Rule must be amended to incorporate provisions of Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coating as applicable to “Heavier” vehicles, which includes all vehicles that meet the definition of the term “other motor vehicles”, as defined at 40 CFR §63.3176. BYD Coach and Bus is not a major source but is permitted above the CTG for Automobile and Light Duty Truck Assembly Coatings (EPA-453/R-08-006, September 2008) threshold.

Rule 1171 – Solvent Cleaning Operations

Rule must be amended to include work practices, adjust categories for consistency with source specific rules, include alternative composite vapor pressure limit.

Proposed Rule Adoption Schedule

The AVAQMD will amend all identified rules by the end of calendar year 2016.

Appendices

APPENDIX A – RACT EVALUATION TABLE

1. Rule 462 – *Organic Liquid Loading*
2. Rule 463 – *Storage of Organic Liquids*
3. Rule 1102 – *Petroleum Solvent Dry Cleaners*
4. Rule 1104 – *Wood Flat Stock Coating Operations*
5. 1106.1 – *Pleasure Craft Coating Operations*
6. Rule 1107 – *Coating of Metal Parts and Products*
7. Rule 1110.2 – *Emissions from Gaseous and Liquid Fueled Internal Combustion Engines*
8. Rule 1141.1 – *Coatings and Ink Manufacturing*
9. Rule 1145 – *Plastic, Rubber and Glass Coatings*
10. Rule 1146 – *Emissions Of Oxides Of Nitrogen From Industrial, Institutional And Commercial Boilers, Steam Generators, And Process Heaters*
11. Rule 1146.1 – *Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters*
12. Rule 1151 – *Motor Vehicle and Mobile Equipment Coating Operations*
13. Rule 1171 – *Solvent Cleaning Operations*
14. Rule 1176 – *VOC Emissions From Wastewater Systems*

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AVAQMD Rule 462 - Organic Liquid Loading¹			
	<i>AV Rule 462 - Organic Liquid Loading</i>	<i>SCAQMD Rule 462 - Organic Liquid Loading</i>	RACT Deficiencies
RACT Version	06/09/1995 (62 FR 60784, 11/13/1997) ²	05/14/1999, 64 FR 39037, 7/21/1999	
Applicability	Facilities that load organic liquids with a vapor pressure of 1.5 psia or greater under actual loading conditions into any tank truck, trailer or railroad car as defined as Class A, B or C facilities.	Facilities that load organic liquids with a vapor pressure of 1.5 psia or greater under actual loading conditions into any tank truck, trailer or railroad car as defined as Class A, B or C facilities.	
Definitions	Facility Vapor Leak: Escape of organic vapors from a source other than a tank truck, trailer or railroad car in excess of 3,000 ppm as methane above background when measured at a distance of 2 cm from the source according to EPA Method 21. A facility vapor leak source does not include liquid spillage or condensate resulting from "liquid leaks."	Facility Vapor Leak: Escape of organic vapors from a source other than a tank truck, trailer or railroad car in excess of 3,000 ppm as methane above background when measured according to EPA Method 21. A facility vapor leak source does not include liquid spillage or condensate resulting from "liquid leaks." New and revised definitions added for rule clarity per SCAQMD TSD.	TSD for SCAQMD Rule 462 identified that the revision of the definition of "facility vapor leak" to remove the 2 cm measurement distance was a deficiency in the rule.
Suggested Control Options		Provision added as a compliance mechanism for District approval of vapor recovery and/or disposal systems that do not require CARB Certification per SCAQMD TSD.	Update for RACT.
Evaluation of RACT and recommendation			
Update Rule 462 to address deficiencies in the Limited Approval/Limited Disapproval in the NPRM issued 05/14/1997.			
Applicable CTG(s)			
Control of Hydrocarbons from Tank Truck Gasoline Loading Terminals, EPA-450/2-77-026			
Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems, EPA 450/2-78-051			
Control of Volatile Organic Emissions from Bulk Gasoline Plants, EPA-450/2-77-035			
¹ Table 1, item 6 of the EPA comment letter asks for identification of which District rule was reviewed on the RACT Evaluation Table. Upon review, it was determined that Rule 462 required further evaluation from the "Tank" section of the Rule Evaluation Table.			
² The AVAQMD does not believe that the SIP version of Rule 462 is as listed on the EPA Region 9 website. EPA lists the SIP version as amended on 06/09/1995 (11/13/1997 62 FR 60784). This FR notice specifically excludes the AVAQMD from the SCAQMD approval. The 5/14/1997 NPRM does not exclude the AVAQMD. The AVAQMD separated from the SCAQMD on 07/01/1997, between the NPRM and the Final rule. Since the 05/14/1997 NPRM does not exclude the AVAQMD, the 06/09/1995 version of Rule 462 is still technically "SIP pending." The last SIP approved version of Rule 462 would be the 10/14/1979 SCAQMD amendment (no action shown for the 04/04/86 version, and no final on the 12/07/1990 version).			

2. Rule 463 – Storage of Organic Liquids

AVAQMD Rule 463 - Organic Liquid Storage ¹			
	AVAQMD Rule 463 - Organic Liquid Storage	SCAQMD Rule 463 - Organic Liquid Storage	RACT Deficiencies
	Amended 03/11/1994 (SIP Approved 10/23/1996 61 FR 54941)	Amended 11/04/2011 (SIP approved 03/28/2013 78 FR 18854)	
Applicability	Above-ground stationary tanks with a capacity of 75,000 liters or greater used for storage of organic liquid, and any above-ground tank with a capacity between 950 liters and 75,000 liters used for the storage of gasoline.	Above-ground stationary tanks with a capacity of 75,000 liters or greater used for storage of organic liquid, and any above-ground tank with a capacity between 950 liters and 75,000 liters used for the storage of gasoline.	Same
Definitions		Definitions added for: Actual Storage Conditions, Ambient Temperature, Certified Person, Drain-Dry Breakout Tank, Heavy Crude Oil, and Working Day. Definition for Vapor Tight has been modified to 500 ppm, expressed as methane, above background.	Update definitions if rule is updated. Update definition of "Vapor Tight" to specify 500 ppm, expressed as methane, above background, from 1,000 ppm expressed as methane, above background.
Tank Roof Requirements		Equivalency for vapor control device to be reviewed by District, ARB and USEPA and approved in writing by Executive Officer, ARB and USEPA. For vapor recovery systems, efficiency shall be 95%, or vent tank emissions to a fuel gas system.	Add equivalency review criteria. Allow tank to vent emissions to a fuel gas system.
Other Performance Requirements	No crude oil containing in excess of 70 ppm by weight of HS shall be stored in floating roof tank.	Provision added that organic liquids listed in addendum shall be deemed in compliance with appropriate vapor pressure limits for the tank in which it is stored provided the actual storage temp does not exceed the corresponding max temp listed. AV crude oil provision has been removed.	Add additional SCAQMD provision. Evaluate if crude oil with 70 ppm HS provision should be removed.
Self-Inspection of Floating Roof Tanks	Out of date compliance dates for inspection and maintenance plan req.		Remove compliance dates that have expired from AV rule for inspection and maintenance plan req.
Reporting and Recordkeeping Requirements		Emissions reporting updates allowable methods for providing emissions information to include USEPAs most recent version of "Tanks 4.0 Program."	Update emissions reporting programs to include USEPA "Tanks 4.0 Program."
Exemptions		Added exemption provision for drain-dry breakout tanks subject to Rule 1149.	Evaluate if this provision should be added.
Test Methods	Vapor tight condition appears to need to be updated.	Updated/added test methods: TVP less than 5 mmHg, TVP of crude oils and distillates, API gravity.	Updated test methods as applicable.
Addendum	Several pages of Attachment C have been removed in the most recent SCAQMD amendment.		Remove information from Appendix C if no longer applicable or necessary.

Evaluation for RACT and recommendation

Rule 463 was inherited from the South Coast Air Quality Management District (SCAQMD) when the Antelope Valley Air Pollution Control District (AVAPCD) was created on July 1, 1997. This rule was in the SCAQMD SIP, and is in the AVAQMD SIP.

USEPA has a CTG for external floating roof tanks (EPA-450/2-78-047, 12/78) and fixed-roof tanks (EPA-450/2-77-036, 12/77).

AVAQMD has several tanks that meet the capacity requirement in the fixed-roof tank CTG, but all are used to store fuel which is lower than the true vapor pressure requirement (JP5, JP8, Jet A, Jet A-1, Diesel and 1010 oil). The AVAQMD has the potential to acquire sources that may be subject to the CTG applicability threshold. Therefore the AVAQMD will not file a FND at this time but will update the rule to current Federal RACT when a source is acquired.

Applicable CTG(s)

Emissions from Petroleum Liquid Storage in External Floating Roof Tanks, EPA-450/2-78-047, 12/78

Control of Volatile Organic Emissions from Storage of Petroleum Liquids in Fixed-Roof Tanks, EPA 450/2-77-036, 12/77

¹ Table 1, item 6 of the EPA comment letter asked for identification of which District rule was reviewed on the RACT Evaluation Table. Upon review, it was determined that Rule 463 required further evaluation from the "Tank" section of the Rule Evaluation Table as it had not been properly identified. Review of the AVAQMD RACT SIP Analysis and the Federal Negative Declaration for Three Source Categories includes Storage of Petroleum Liquids in Fixed-Roof Tanks and Petroleum Liquid Storage in External Floating Roof Tanks (CTGs referenced: Control of Volatile Organic Emissions from Storage of Petroleum Liquids in Fixed-Roof Tanks (EPA-450/2-77-036, 12/77) and Control of Volatile Organic Emissions from Petroleum Liquid Storage in External Floating Roof Tanks (EPA-450/2-78-047, 12/78)).

3. Rule 1102 – Petroleum Solvent Dry Cleaners

Rule 1102 - Petroleum Solvent Dry Cleaners			
	SCAQMD Rule 1102 (Amended 11/17/2000, SIP approved, 67 FR 46876 07/17/2002)	AVAQMD Rule 1102 (Amended 12/07/1990, SIP approved, 57 FR 10136 03/24/1992)	AV Rule 1102 RACT Deficiencies
Applicability	Dry cleaning facility using solvent other than PERC	Petroleum Solvent Dry Cleaners	Applicability does not include all solvents besides PERC.
Definitions	Terms added/removed from previous version to cover additional requirements	Not as comprehensive, does not cover SCAQMD expanded applicability.	Would need to be updated to cover more comprehensive applicability.
Operating Requirements	Cartridge filters containing paper or carbon shall be fully drained in a sealed filter housing for 24 hours before removal. Additional specifications for closed-loop machines. Transfer machines no longer allowed. Leak check and repair requirements specified.	Cartridge filters containing paper or carbon shall be fully drained in a sealed filter housing for 12 hours before removal.	Increased drainage time for cartridge filters from 12 to 24 hours. Additional specifications for closed-loop machines not specified. Transfer machines no longer allowed. Leak check and repair requirements not specified as to frequency, specificity of SCAQMD Rule 1102.
Recordkeeping	Pre-wash weight of materials/load Purchase and delivery receipts for solvent. Log of solvent added by operator. Inventory of solvent. Amount of solvent used. Dates of leak inspections. Detection and repair log for leaks. Facility mileage for solvent used. All records maintained pursuant to Rule 109.	Pre-washed weight of articles. Solvents purchased and solvent inventory. Maintain records pursuant to Rule 109.	Less comprehensive recordkeeping than SC 1102.
Test Methods	EPA Test Method 25 or SCAQMD Test Method 25.1 (March 1989).	EPA Test Method 25 or SCAQMD Test Method 25.1 (March 1989).	Same test methods specified.
Compliance Schedule	Not allowed after 01/01/2001 - dip tanks, drying cabinets, closed-loop machine opened before completion of drying cycle. Not allowed after 01/01/2005 - Transfer machines.	By 01/01/1993 all petroleum solvent dry-cleaning facilities were to meet rule provisions.	SCAQMD Rule no longer allows the operation of transfer machines, and they are still allowed in AVAQMD rule.
Notes		AV SIP rule was the SC version prior to their most recent amendment.	
Applicable CTG			
Control of Volatile Organic Compound Emissions from Large Petroleum Dry Cleaners, EPA-450/3-82-009. 09/1992.			
CTG Threshold			
Consume ≥123,000 liters (32,483 gallons) of petroleum solvent annually.			
Evaluation of RACT and recommendation			
The AVAQMD does not have any sources that meet the CTG applicability threshold (The largest source in the AVAQMD is permitted for purchase of 82 gallons annually). The AVAQMD will not file a FND at this time but will update the rule to current Federal RACT when a source is acquired.			

4. Rule 1104 – Wood Flat Stock Coating Operations

Rule 1104 - Wood Flat Stock Coating Operations			
	SCAQMD Rule 1104 (Amended 08/13/1999, SIP approved, 65 FR 15240 03/22/2000)	AVAQMD Rule 1104 (Amended 03/01/1991, SIP approved, 59 FR 32354 06/23/1994)	AV Rule 1102 RACT Deficiencies
Applicability	Applies to all persons applying coatings, inks, and adhesives to flat wood stock for the purpose of manufacturing a finished wood panel for attachment to the inside walls of buildings, including but not limited to, homes and office buildings, mobile homes, trailers, prefab buildings and similar structures, boats and ships; or a finished exterior wood siding intended for use in construction.	Applies to all persons applying coatings, inks, and adhesives to flat wood stock for the purpose of manufacturing a finished wood panel for attachment to the inside walls of buildings, including but not limited to, homes and office buildings, mobile homes, trailers, prefab buildings and similar structures, boats and ships; or a finished exterior wood siding intended for use in construction.	Same applicability.
Requirements	Wood flat stock coatings, inks, and adhesives for interior wood panels and exterior wood siding - <250 g/l of coating, ink or adhesive, less water and exempt compound. Added reference to Rule 1171 - Solvent Cleaning Operations	*Wood flat stock coatings and adhesives for wood panels - <250 g/l of coating or adhesive, less water and exempt compound. *Wood flat stock inks - <300 g/l of VOC per liter of ink, less water and exempt compound. *Wood flat stock coatings for exterior wood siding - <350 g/l of VOC per liter of coating, less water and exempt compound.	Wood flat sock inks for wood panels and wood flat stock coatings for exterior wood siding exceed the limits in SC RACT version. No Rule 1171 reference.
Recordkeeping	Pursuant to Rule 109 (Amended 05/02/2003, Approved 69 FR 3018 01/22/2004)	Pursuant to Rule 109 (Amended 4/20/2010, Approved 77 FR 12495 03/01/2012)	Same recordkeeping requirements.
Test Methods, AECF, Exemption			Same test methods, AECF, Exemptions cited.
Notes		AV SIP rule was the SC version prior to their most current amendment.	
Applicable CTG			
Control of Volatile Organic Compounds Emissions from Existing Stationary Sources Volume VII: Factory Surface Coating of Flatwood Panelling (EPA-450/2-78-032, June 1978)			
CTG Threshold			
15 lb/day (6.8 kg/day)			
Evaluation of RACT and recommendation			
The AVAQMD does not have any sources that meet the CTG applicability threshold. The AVAQMD will not file a FND at this time but will update the rule to current Federal RACT when a source is acquired.			

Rule 1106.1 - Pleasure Craft Coating Operations (Amended 6/13/1997)					
Applicability	VOC Content Limit	Application Methods	Add-On Controls	Solvent Cleaning/Work Practices	Exemptions
<p>Rule 1106.1</p> <p>Applicable to all coating operations of pleasure craft, or their parts and components, for the purpose of refinishing, repairing, modification, or manufacturing such craft. Also applies to establishments engaged in activities described under Standard Industrial Classification (SIC) codes 3732 - Boat Building and Repairing and 4493 - Marinas.</p>	<p>Topcoats</p> <p>Extreme High Gloss 490</p> <p>High Gloss 420</p> <p>Pretreatment Wash Primers 780</p> <p>Finish Primer/Surfacer 420</p> <p>High Build Primer Surfacer 340</p> <p>Teak Primer 775 (non-CTG)</p> <p>Antifoulant Coatings</p> <p>Aluminum Substrate 560</p> <p>Other Substrates 150 (lower)</p> <p>Clear Wood Finishes</p> <p>Sealers 550 (non-CTG)</p> <p>Varnishes 490 (non-CTG)</p> <p>Others 420</p>	<p>Hand Application</p> <p>HVLP or equivalent</p>	<p>Add-on Controls not specified.</p>	<p>References Rule 1171 - Solvent Cleaning Operations.</p> <p>Rule 1171 requirements adequately cover CTG recommended solvent cleaning work practices.</p>	<p>Aerosol coating products.</p>
<p>EPA CTG:Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts (EPA 453/R-08-003, September 2008)</p> <p>Applicable to coatings that are applied to the surfaces of a varied range of metal and plastic parts and products, including the metal and plastic components of pleasure craft (recreational boats).</p>	<p>Topcoats</p> <p>Extreme High Gloss 490 (4.1)</p> <p>High Gloss 420 (3.5)</p> <p>Pretreatment Wash Primers 780 (6.5)</p> <p>Finish Primer/Surfacer 420 (3.5)</p> <p>High Build Primer Surfacer 340 (2.8)</p> <p>Antifoulant Coatings</p> <p>Aluminum Substrate 560 (4.7)</p> <p>Other Substrates 340 (2.8)</p> <p>Others 420 (3.5)</p>	<p>Recommended control options specify use of one or more of the following coating application methods in conjunction with the use of low-VOC content coatings: electrostatic application, HVLP spray, flow coat, roller coat, dip coat (including electrodeposition), airless spray, air-assisted airless spray, or other coating application methods capable of achieving a transfer efficiency equivalent to or better than that achieved by HVLP spraying.</p>	<p>Overall VOC control efficiency of 90% for facilities that choose to use add-on controls instead of low VOC content coatings and specified application methods.</p>	<p>Cover mixing and storage vessels for VOC-containing cleaning materials, and cleaning waste materials except when adding, removing or mixing contents.</p> <p>Used closed containers or pipes to store or convey VOC-containing cleaning and cleaning waste materials.</p> <p>Minimize spills of VOC-containing cleaning and cleaning waste materials.</p> <p>Minimize VOC emissions during cleaning operations.</p>	<p>Recommends exemptions required in SCAQMD Rule 1106.1.</p>
<p>SCAQMD Rule 1106.1 (amended 02/12/1999, approved/RACT 64 FR 47393, 08/31/1999)</p> <p>Same applicability as AVAQMD, except for references Rule 1106 - Marine Coating Operations, which was rescinded by AVAQMD.</p>	<p>All coating limits are the same as AVAQMD Rule 1106.1 except Antifoulant Coatings - Other Substrates than Aluminum, which has increased from 150 to 330 g/L.</p> <p>Per SCAQMD January 1999 Staff Report, use of water-based antifoulants resulted in application problems, including delamination/blistering above the water line, burn-back around metal fittings, and shorter service life. These problems resulted in the unexpected growth of marine organisms in problem areas, requiring re-application and considerable expense to boatyards.</p>	<p>Removed Hand application, HVLP or equivalent. Application method not further specified.</p> <p>Per SCAQMD January 1999 Staff Report, use of HVLP spray equipment led to performance problems such as sags, orange peel and other appearance imperfections due primarily to the coating formulation. The use of HVLP spray equipment with compliant coatings, which are higher in solids than their conventional counterparts, are routinely used illegally (i.e., greater than 10 psi) in order to avoid appearance problems such as sags and orange peel. In an attempt to improve the flow properties of coatings sprayed with HVLP spray equipment, additional thinner was added, causing an increase in emissions. Since pleasure craft coating operations are conducted outdoors, weather conditions such as wind, humidity, and heat exacerbate an already difficult situation.</p>	<p>Add-on Controls not specified.</p>	<p>References Rule 1171 - Solvent Cleaning Operations.</p>	<p>Aerosol coating products.</p>
<p>Evaluation for RACT:</p> <p>Rule 1106.1 meets or exceeds VOC and control requirements in CTG and most recent amendment of SCAQMD Rule 1106.1</p>					
<p>Conclusion/Recommendation:</p> <p>Rule does not require an update for federal RACT. If updated, the rule could be amended for several administrative items such as removing the reference to Rule 1160, which has been rescinded, and several test methods which have updated reference numbers. None of these items affect federal RACT requirements.</p>					

6. Rule 1107 – Coating of Metal Parts and Products

Rule 1107 - Coating of Metal Parts and Products			
Applicability	VOC	Control Device Efficiency	Coating Application Methods
<p>Rule 1107</p> <p>Applies to all metal coatings operations except those performed on aerospace assembly, magnet wire, marine craft, motor vehicle, metal container, and coil coating operations.</p>	<p>VOC limits consistent with those in CTG, except as noted: -High Performance Architectural Coating limit is lower in AVAQMD rule. -AV rule does not include Drum Coating categories or limits*. *The District does not currently have a drum coating facility, or expect any in the future. Not having drum coating categories at this time does not constitute a RACT deficiency at this time.</p>	<p>Collect 90% with destruction efficiency of at least 95%</p>	<p>Electrostatic HVLP Flow Coat Roll Coater Dip Coat Hand Application Methods Equivalent to HVLP</p>
<p>Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings (EPA-453/R-08-003, September 2008)</p> <p>These miscellaneous metal products include, but are not limited to, metal components of the following types of products as well as the products themselves: fabricated metal products, small and large farm machinery, commercial and industrial machinery and equipment, automotive or transportation equipment, interior or exterior automotive parts, construction equipment, motor vehicle accessories, bicycles and sporting goods, toys, recreational vehicles, pleasure craft (recreational boats), extruded aluminum structural components, railroad cars, heavier vehicles, lawn and garden equipment, business machines, laboratory and medical equipment, electronic equipment, steel drums, metal pipes, and numerous other industrial and household products.</p>	<p>Coating Categories and limits (g/L) not included:</p> <p>Drum Coating, New, Exterior (Air-dried, 340/Baked, 340) Drum Coating, New, Interior (Air-dried, 420/Baked, 420) Drum Coating, Reconditioned, Exterior (Air-dried, 420/Baked, 420) Drum Coating, Reconditioned, Interior (Air-dried, 500/Baked, 500)</p>	<p>90% overall control efficiency.</p>	<p>Electrostatic HVLP Flow Coat Roller Coat Dip Coat (electrodeposition) Airless Spray Air-assisted airless spray Equivalent to HVLP</p>
<p>SCAQMD Rule 1107</p>	<p>General has been separated out to One-Component and Multi-component Categories. One-Component air-dried limit lower than CTG and AV version.</p> <p>Extreme High-Gloss, Air-dried lowered to 340.</p> <p>Prefabricated Architectural separated to One-Component and Multi-Component. One-Component and Multi-Component air-dried limits lower than CTG and AV version.</p> <p>SCAQMD added separate Rule 1125 to cover steel pail and drum coatings.</p>	<p>Collect 90% with destruction efficiency of at least 95%</p>	<p>Electrostatic Flow coat Roll coat Dip coat HVLP Hand application methods Printing techniques (inkjet) Equivalent to HVLP</p>
Evaluation for RACT:			
Rule 1107 is consistent with the CTG, but several VOC limits in SCAQMD Rule 1107 are slightly lower.			
Conclusion/Recommendation:			
Amend Rule 1107 to meet federal RACT requirements.			

7. Rule 1110.2 – *Emissions from Gaseous and Liquid Fueled Internal Combustion Engines*

AVAQMD Rule 1110.2 - Emissions From Stationary, Non-road & Portable Internal Combustion Engines¹
<p>¹ Rule 1110.2 was originally adopted by SCAQMD on 08/03/1990 and amended 09/07/1990, 08/12/1994 and 12/09/1994. EPA did not approve any of these rule versions into the SIP. The AVAQMD subsequently amended Rule 1110.2 on 05/15/2001 and 01/21/2003. On 04/21/2004, EPA proposed a limited approval/limited disapproval (69 FR 21482, 04/21/2004) of the revision. The LA/LD was based on the agricultural ICE exemption. The LA/LD also included a request for justification of the seasonal exemption for ICE used for snow manufacturing and ski lift operation, request for correction of several citations, and increasing record retention from 2 years to 5 years. Specifically, EPA determined that the Ag exemption, and possibly the snow/ski exemption, disqualified Rule 1110.2 from meeting RACT.</p>
<p>Evaluation for RACT and recommendation</p> <p>Rule 1110.2 is not RACT. Rule 1110.2 must be updated to remove the Ag exemption and address other EPA comments identified in the LA/LD (69 FR 21482, 04/21/2004).</p>

8. Rule 1141.1 – *Coatings and Ink Manufacturing*

Rule 1141.1 - Coatings and Ink Manufacturing			
	AVAQMD Rule 1141.1 - Coatings and Ink Manufacturing	SCAQMD Rule 1141.1 - Coatings and Ink Manufacturing	RACT Deficiencies
	Amended 03/06/1992 (SIP version amended 03/14/1984, approved 01/24/1985, 50 FR 3338)	Amended 11/17/2000 (02/12/2002, 67 FR 6410)	
Applicability	Coatings manufacturer - establishment that mixes, blends, and/or compounds paints, varnishes, lacquers, enamels, shellacs, or sealers, and is classified as 2851 in the SIC Manual. Ink manufacturer - establishment that mixes, blends, and/or compounds printing inks and is classified as 2893 in the SIC Manual.	Coatings manufacturer - establishment that mixes, blends, and/or compounds paints, varnishes, lacquers, enamels, shellacs, or sealers, and is classified as 2851 in the SIC Manual. Ink manufacturer - establishment that mixes, blends, and/or compounds printing inks and is classified as 2893 in the SIC Manual.	Same applicability.
Definitions	Still have definition for ROG.	Definition added for exempt compound, updated for VOC and waterbased coating.	Update definitions
Requirements	Reference ROG rather than VOC.	Same requirements, but reference VOC rather than ROG.	Update reference from ROG to VOC.
Recordkeeping	None	Maintain daily or monthly records, including type and amount of each coating/ink manufactured, type and amount of each VOC containing material in each coating or ink, the type and VOC content of each solvent used for clean-up used. Maintain records for 2 years.	Add recordkeeping requirements.
Exemptions		Added exemption from rule provisions except recordkeeping if manufacture less than 11,000 gallons of coatings and/or inks per calendar month.	Will evaluate adding additional exemption. All other exemptions the same.
Compliance	Lists dates for compliance with rule requirements.		Have been removed from SCAQMD rule amendment. May be removed from AVAQMD rule if no longer necessary.
Fees	Permit application linked to filing of compliance plan. May be required to submit engineering evaluation fee as well.		This provision has been removed from SCAQMD rule. May be removed from AVAQMD rule if no longer necessary.
Applicable CTGs			
Control of Volatile Organic Emissions from Existing Stationary Sources, Volume I: Control Methods for Surface Coating Operations (EPA-450/2-76-028, 11/76, NTIS PB-260-386). Although often listed with the CTGs for historical reasons, this document does not define RACT for any source. It is a compilation			
Control of VOC Emissions from Ink and Paint Manufacturing Processes (EPA-450/3-92-013, 4/92)			
Evaluation for RACT and recommendation			
AVAQMD has no major sources subject to the provisions of Rule 1141.1. This rule is not required to meet RACT and does not require updating at this time. If the AVAQMD acquires a major source, the rule will be re-evaluated for RACT at that time.			

9. Rule 1145 – Plastic, Rubber and Glass Coatings

Rule 1145 - Plastic, Rubber and Glass Coatings			
	AV Rule 1145 - Plastic, Rubber, and Glass Coatings ¹	SC Rule 1145 - Plastic, Rubber, Leather, and Glass Coatings	RACT Deficiencies
SIP Version	Amended 01/10/92 (12/20/1993, 58 FR 66286)	Amended 12/04/2009 (07/14/2010, 75 FR 40726)	
Applicability	Reduce VOC emissions from the application of coatings to any plastic, rubber or glass product.	Reduce VOC emissions from the application of coatings to any plastic, rubber, leather or glass products.	Evaluate if need to expand applicability to include leather coatings.
Definitions		Several definitions have been added/removed/updated: carpet backing, coating, extreme performance coating, HVLP, leather antique coating, leather color coating, leather sealer coating, leather stain coating, leather top coating, refrigerated glass door coating, vacuum metalizing/physical vapor deposition.	Update definitions as needed and add definitions for leather coatings if leather is added to applicability.
VOC Limits	Several higher VOC limits: General Coatings (one- and two-component), multi-colored coatings, mirror backing (roll coated), optical coatings.	Added categories: extreme performance, leather, refrigerated glass doors.	Update VOC limits if cost-effective, and add new categories if needed.
Requirements	Remove 1151 references if now contained in 1151. Update transfer efficiency requirement.	Added qualification for classification as extreme performance.	Add extreme performance coating qualification, update transfer efficiency requirement, remove 1151 reference if applicable.
Compliance Test Methods	Update test methods to include additional references.	Added determination of efficiency of emission control system.	Update test methods.
Prohibition of Sale		Additional language.	Update prohibition of sale requirements if applicable.
Exemptions	Update exemption for clear and translucent coatings.	Added exemption applicable to polyurethane shoe sole coating.	Update exemptions.
Evaluation of RACT and recommendation			
Update Rule 1145 to address deficiencies noted in RACT rule analysis with SCAQMD Rule 1145.			
Applicable CTGs			
CTG for Miscellaneous Metal and Plastic Parts Coatings (EPA-453/R-08-003, September 2008)			
¹ The version of Rule 1145 in the AVAQMD Rule book is as amended by SCAQMD 02/14/1997. The AVAQMD separated from the SCAQMD on 07/01/1997, prior to the submission of this rule to USEPA on 08/01/1997. The SCAQMD approval of the 02/14/1997 version (05/04/1999, 64 FR 23774) specifically excluded the AVAQMD from the approval action. The RACT analysis will compare the rulebook version to the SCAQMD SIP version.			

10. Rule 1146 - Emissions Of Nitrogen From Industrial, Institutional And Commercial Boilers, Steam Generators, And Process Heaters

AVAQMD Rule 1146 - Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters						
		AVAQMD Rule 1146 - Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters, Adopted 5/13/1994 (SIP approved 09/06/1995, 60 FR 46220)	SCAQMD Rule 1146 - Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters, Amended 11/17/2000 (SIP approved 04/08/2002, 67 FR 16640)	SJVUAPCD Rule 4306 - Boilers, Steam Generators, and Process Heaters - Phase 3, Amended 10/16/2008 (SIP Approved 01/13/2010, 75 FR 1715)	RACT Deficiency	
Applicability		Boilers, steam generators, and process heaters of equal to or greater than 5 million Btu per hour rated heat input capacity used in all industrial, institutional operations with the exception of boilers used by electric utilities to generate electricity, boilers and process heaters with a rated input capacity greater than 40 MMBtu per hour used in petroleum refineries, and sulfur plant reaction boilers.	Boilers, steam generators, and process heaters of equal to or greater than 5 million Btu per hour rated heat input capacity used in all industrial, institutional operations with the exception of boilers used by electric utilities to generate electricity, boilers and process heaters with a rated input capacity greater than 40 MMBtu per hour used in petroleum refineries, and sulfur plant reaction boilers.	Any gaseous fuel or liquid fuel fired boiler, steam generator, or process heater with a total rated heat input greater than 5 million Btu per hour.		
Emission Limits	≥ 5 million Btu/hr and > 90,000 Therms fuel use	40 ppm NOx (gaseous, liquid or solid fuel) 400 CO	40 ppm NOx (gaseous fuels) 40 ppm Nox (combination gaseous/non-gaseous - ≥5 and <40) 400 ppm CO		Will survey affected units for applicability and determine if it is feasible to update limits as RACT.	
	≥ 40 million Btu/hr and > 25% annual capacity factor	30 ppm NOx 400 CO	30 ppm Nox 400 ppm CO			
	≥ 40 million Btu/hr and > 25% annual capacity less than factor and >90,000 Therms	40 ppm NOx 400 CO	40 ppm NOx (≥ 40 million Btu/hr and rated heat input ≤ 25% burning gaseous and non-gaseous) 400 ppm CO			
	Any unit with rated heat input capacity ≥ 5 million Btu/hr, annual heat unput ≤ 90,000 Therms shall: -maintain stack gas [O ₂] at ≤ 3% on a dry basis for any consecutive 15-min averaging period; or -be tuned at least 2x/year according to procedures in attachment or manufacturer's specifications for tune-up.	✓	✓	✓		
	≥ 40 million Btu/hr and annual heat input >200 x 10 ⁹ shall have a continuous in-stack nitrogen oxides monitor or equivalent verification system in compliance with 40 CFR 60 Appendix B Spec. 2.	✓	✓			CEMS for any unit subject to emission limits or approved alternative monitoring system
	≥ 10 million Btu/hr and burning gaseous fuels		30 ppm Nox 400 ppm CO			
	≥ 10 million Btu/hr and burning combination of gaseous and non-gaseous fuels		30 ppm Nox 400 ppm CO			
	≥ 5 million Btu/hr and <10 Btu/hr		30 ppm Nox 400 ppm CO			
	≤ 20 MMBtu/hr					Std/Gaseous - 15 ppmv Enhanced/Gaseous - 9 ppmv Liquid - 40 ppmv CO - 400 ppm
	> 20 MMBtu/hr					Std/Gaseous - 9 ppmv Enhanced/Gaseous - 6 ppmv Liquid - 40 ppmv CO - 400 ppm
Load-following Units				Std/Gaseous - 15 ppmv Enhanced/Gaseous - 9 ppmv Liquid - 40 ppmv CO - 400 ppm		
Units limited by PTO to annual heat input of 9 billion Btu/year to 30 billion Btu/year				Gaseous - 30 ppmv Liquid - 40 ppmv CO - 400 ppmv		
Unit in which the rated heat input of each burner is ≤ 5 MMBtu/hr but total of all burners in unit is > 5 MMBtu/hr, and the products of combustion do not come in contact with the products of combustion of any other burner				Gaseous - 30 ppmv Liquid - 40 ppmv CO - 400 ppmv		
Evaluation for RACT and recommendation						
Will survey affected units for applicability and determine if it is feasible to update limits as RACT.						

11. Rule 1146.1 – Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters

AVAQMD Rule 1146.1 - Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters ¹			
	AVAQMD Rule 1146.1, Amended 05/13/1995	SJVUAPCD Rule 4307 - Boilers, Steam Generators, and Process Heaters - 2.0 MMBtu/hr to 5.0 MMBtu/hr, Amended 10/16/2008	RACT deficiencies
SIP Version	SIP approved 09/06/1995, 60 FR 46220	SIP approved 01/13/2010, 75 FR 1715	
Applicability	Boilers, steam generators, and process heaters that are greater than 2 million Btu per hour and less than 5 million Btu per hour rated heat input capacity used in any industrial, institutional, or commercial operation.	Gaseous fuel or liquid fuel fired boiler, steam generator, or process heater with a total rated heat input of 2.0 million Btu per hour up to and including 5.0 MMBtu/hr.	AVAQMD rule does not have different limits for liquid and gaseous fueled boilers, steam generators, or process heaters in applicability. Both liquid and gaseous have same limit in AVAQMD rule, where liquid fired units in SJVUAPCD rule has higher NOx limit for liquid fueled units.
Definitions		Many definitions have been added or modified.	May need to be updated for clarification or new requirements.
Exemptions	NOx and CO limits do not apply if: Non-resettable, totalizing fuel meter demonstrating that unit operates less than 18,000 therms per calendar year. Records list cumulative fuel annual usage for preceding calendar year. Must maintain stack-gas oxygen concentrations, be tuned twice per year, submit compliance plan.	1. Solid fuel fired units. 2. Dryers and glass melting furnaces. 3. Kilns, humidifiers, and smelters where the products of combustion come in direct contact with the material to be heated. 4. Unfired or fired waste heat recovery boilers that are used to recover or augment heat from the exhaust combustion of gas turbines or ICE. 5. NOx and CO limits shall not be enforced when burning other than PUC fuel during an approved curtailment.	Add exemptions if applicable.
Requirements	Standards for NOx and CO.	Standards for NOx, CO, PM and SOx, as well as new and replacement atmospheric and non-atmospheric units.	The AVAQMD is non attainment for PM ₁₀ and SOx, and does not need to incorporate these limits in the rule. The requirements for new and replacement units would be evaluated for BACT at major facilities. Therefore, the RACT limits for NOx and CO in AVAQMD Rule 1146.1 are the same as those in SJVUAPCD 4307.
Equipment Tuning Procedure	Appendix A, Rule 1146.1	Rule 4304	Contains same info. No update necessary.
Start-up, shutdown	6-hr time limit for start-up, shut down.	Places 1-hr or 2-hr requirements on start-up and shutdown	Expand start-up, shutdown requirements.
Monitoring Provisions	Tune-up provision, operational non-resettable, totalizing mass or volumetric flow meters on each line.	Monitor manufacturer recommended operational characteristics once a month. Operational non-resettable, totalizing mass or volumetric flow meters on each line, or a master meter.	Add monthly monitoring of manufacturer recommended operational characteristics.
Test Methods			May need to update several test methods referenced.
Recordkeeping	2 years	5 years	Update record retention to 5 years.
Additional Requirements			To be analyzed as necessary for applicability.
Evaluation of RACT and recommendation			
NOx and CO limits are consistent with current RACT limits in SJVUAPCD Rule 4307 as well as SCAQMD Rule 1146.1. These rules, as well as the TSD for the SCAQMD 09/05/2008 amendment will be used for updating requirements during next rule update.			
Applicable CTG(s)			
ACT Document - NOx Emissions from Industrial/Commercial/Institutional (ICI) Boilers, USEPA 453/R-94-022, March 1994.			
ACT Document - NOx Emissions from Utility Boilers, USEPA 452/R-93-008, March 1994.			
¹ The SCAQMD rule amendment in the SIP is identical to the AVAQMD rulebook version. SCAQMD most recently amended Rule 1146.1 - Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters on 11/01/2013. This version has not been updated as a SIP approved RACT rule on the Region 9 SIP site, nor does it appear that CARB has yet submitted this amendment to USEPA. The prior 09/05/2008 SC amendment received proposed Limited Disapproval/Limited Approval from USEPA.			

12. Rule 1151 – *Motor Vehicle and Mobile Equipment Coating Operations*

<p>Rule 1151 - <i>Motor Vehicle and Mobile Equipment Coating Operations</i></p>
<p>Applicable CTGs</p> <p>Control Techniques Guidelines for Automobile and Light Duty Truck Assembly Coatings, EPA 453/R-08-006, 09/2008.</p> <p>Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat Operations, EPA 453/R-08-022, 09/2008.</p>
<p>CTG Applicability</p> <p>This CTG applies to the application of coatings in automobile and light-duty truck assembly coatings, which includes heavier vehicles (buses) as defined at 40 CFR 63.3176.</p>
<p>Evaluation for RACT</p> <p>Rule must be amended to incorporate provisions of Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coating as applicable to “Heavier” vehicles, which includes all vehicles that meet the definition of the term “other motor vehicles”, as defined at 40 CFR §63.3176. BYD Coach and Bus is not a major source but is permitted above the CTG for Automobile and Light Duty Truck Assembly Coatings .</p>

13. Rule 1171 – *Solvent Cleaning Operations*

Rule 1171 - Solvent Cleaning Operations			
	Rule 1171 Amended 11/17/98 SIP Approved 05/24/01, 66 FR 28666	CTG Control Techniques Guidelines for Industrial Cleaning Solvents, EPA-453/R-06-001, 09/2006	RACT Evaluation
Applicability	VOC Containing materials in solvent cleaning operations during the production, repair, maintenance or servicing of parts, products, tools, machinery, equipment, or general work areas, and storage and disposal of VOC containing materials.	Use organic solvent for cleaning operations such as mixing vessels (tanks), spray booths, and parts cleaners where a facility emits at least 15 lb/day of VOC before consideration of controls in an ozone nonattainment area. CTG recommends particular cleaning activities are only subject to one set of requirements	
Work Practices	Not specified.	1. Cover open containers and used applicators. 2. Minimize air circulation around cleaning operations. 3. Properly dispose of used solvent and shop towels. 4. Implement equipment practices that minimize emissions.	Add work practices.
VOC limits		50 grams VOC per liter for each of the 9 unit operations (spray gun cleaning, spray booth cleaning, large manufactured components cleaning, parts cleaning, equipment cleaning, line cleaning, floor cleaning, tank cleaning, small manufactured components cleaning)	Need to update rule to reference source specific rules, and VOC limits
Overall Control Efficiency	Collect 90%, 95% destruction	85%	Meets
Alternative Composite Vapor Pressure Limit	Several below, several above recommended limit	8 mmHg at 20°C, as a replacement or alternative limit to 50 g/l VOC.	Update
Evaluation of RACT and recommendation			
Update Rule 1171 to include work practices, adjust categories for consistency with source specific rules, include alternative composite vapor pressure limit.			

14. Rule 1176 – VOC Emissions From Wastewater Systems

AVAQMD Rule 1176 - VOC Emissions From Wastewater Systems¹	
	Amended 5/13/1994 (SIP approved 08/25/1995, 59 FR 43751)
Applicability	Applies to wastewater systems and associated control equipment located at petroleum refineries, on-shore oil production fields, off-shore oil production platforms, chemical plants (any facility engaged in producing chemicals, and/or manufacturing products by chemical processes. Any facility or operation that has 282 as the first three digits in its Standard Industrial Classification Code as defined in the Standard Industrial Classification Manual is included in this definition), and industrial facilities (engaged in the production and distribution of natural gas, pipeline distribution or wholesale distribution of crude petroleum and petroleum products except gasoline, as classified under the Standard Industrial Classification group numbers 492, 461, or 517, respectively, of the Standard Industrial Classification Manual).

¹ Review of the AVAQMD RACT SIP Analysis and the Federal Negative Declaration for Fifty-One CTG Categories includes the Industrial Wastewater source category (referencing documents: Air Emissions from Industrial Wastewater (04/94), Control of VOC Emissions from Industrial Wastewater CTG Draft (EPA-453/D-93-056, 09/92), and Control of Refinery Vacuum Producing Systems, Wastewater Separators, and Process Unit Turnarounds (EPA-450/2-77-025, 10/77). Although Rule 1176 was not specifically referenced in the RACT SIP Analysis, this source category has been FNDED. Rule can be rescinded as there are no sources subject to the applicability of the rule in the AVAQMD.